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# Undergraduate CATALOG 

2015-2016
siue.edu
EDWARDSVILIE
Chancellor's Welcome ..... 3
Visits and Information ..... 4
Academic Calendar ..... 4
SIUE Overview ..... 5
Mission, Vision, Values, Diversity, Goals ..... 6-7
Admission to the University ..... 8
Academic Policies and Requirements ..... 18
Financial and Scholarship Information ..... 28
Advanced Studies ..... 40
Study Abroad. ..... 42
Instructional Services ..... 43
Student Development/University Activities ..... 44
Services for Students ..... 49
Degrees and Programs ..... 61
Minor Programs of Study ..... 62
General Education ..... 63
Illinois Articulation Initiative ..... 71
Assessment and Senior Assignment. ..... 71
College and Schools of the University College of Arts and Sciences ..... 73
School of Business ..... 199
School of Education, Health and Human Behavior ..... 223
School of Engineering ..... 255
School of Nursing ..... 277
School of Pharmacy ..... 289
School of Dental Medicine ..... 297
Graduate School ..... 305
Non-Traditional Credit Programs and Services 311
Environmental Resources Training Center ..... 312
Non-Credit Programs and Services. ..... 314
Community Services ..... 315
East St. Louis Center ..... 315
University Policies ..... 317
University Facilities ..... 321
Officers and Faculty Emeriti ..... 323
Course Descriptions ..... 333
Index ..... 421
Office Directory siue.edu (click A-Z Index)

## Accreditation

Southern Illinois University Edwardsville is accredited by The Higher Learning Commission and is a member of the North Central Association of Colleges and Schools. Many of its departments and schools are accredited by professional agencies, including the following:
Accreditation Board for Engineering and Technology
Accreditation Council for Pharmacy Education
Accrediting Council on Education in Journalism and Mass Communications
American Council for Construction Education
American Dental Association Commission on Dental Accreditation
American Speech-Language-Hearing Association
Association to Advance Collegiate Schools of Business - International

Commission on Accreditation of Allied Health Education Programs
Commission on Collegiate Nursing Education
Council on Accreditation of Nurse Anesthesia Educational Programs
Council on Social Work Education
National Association of Schools of Art and Design
National Association of Schools of Music
National Association of Schools of Public Affairs and Administration
National Association of Schools of Theater
National Council for Accreditation of Teacher Education

In addition, the American Art Therapy Association, American Chemical Society, and National Association of School Psychologists have formally reviewed and approved SIUE's programs as meeting their standards.

## Disclaimer

This catalog represents all courses and requirements in effect at the time of its publication. Subsequent to its publication, the University may find it necessary to make changes to courses, curriculum, tuition, fees or other details herein. The Board of Trustees of Southern Illinois University, its respective officers and agents reserve the right to modify, add or delete courses, information and/or requirements contained herein without prior notice.

This catalog is not a contract, nor does it provide any contractual rights to the courses or benefits stated herein. If you have a question about a course and/or requirement within this catalog, please contact the Office of the Registrar and/ or the Office of Admissions of the University to obtain current information about courses of interest.


## Welcome to the University

On behalf of the faculty and staff of Southern Illinois University Edwardsville, welcome and congratulations on having made a great choice for your college experience. SIUE is listed for the eleventh consecutive year among the best Regional Universities Midwest by U.S. News \& World Report. SIUE has so much to offer - from quality faculty and academic programs to a wide variety of extracurricular activities and special events. Also, for the fifth consecutive year, the University is listed on the President's Higher Education Community Service Honor Roll for giving back to the Southern Illinois region and the greater community.
At SIUE, you will receive an excellent education in your chosen field. A significant number of our programs are accredited by their national divisions, and all are founded on the University's mission, vision, values and diversity statement, as well as its long-term goals. These documents may be found in the following pages and are worthy of your review, because they serve as the governing principles of SIUE.

In addition to your focusing on academic studies, be sure to take advantage of the many opportunities available to you as extracurricular activities. With more than 250 student organizations from which to choose, you can participate in intellectual, artistic, leadership, athletic or social activities - or any combination of these - and create for yourself a unique and rewarding university experience. Also, SIUE is a member of NCAA Division I athletics, eligible for post-season play and highly competitive and exciting contests. These activities are all a significant part of your education and an excellent way to build character, friendships, interests and great memories.
Our faculty and staff are here to help you make the most of your time at SIUE. Don't hesitate to ask for what you need, and be sure to take full advantage of the activities, both academic and extracurricular, that will assist in your growth.
I wish you all the best for a very successful SIUE experience. Tomorrow depends on what you learn today!

Go Cougars!
Julie Furst-Bowe, EdD
Chancellor

## Visits and Information

## Schedule a Campus Visit

Guided walking tours of the campus are offered Monday - Friday at multiple times during the day and on select Saturdays in the morning. Campus tours take about two hours. Your tour will begin in the Office of Admissions with a 30-minute admissions presentation by one of our Admission Counselors. A one-hour walking tour of campus by one of our student Tour Ambassadors will follow the presentation. For a complete schedule of available dates and to schedule an appointment, visit siue.edu/visit, or call (800) 447-SIUE or (618) 650-3705.

The Office of Admissions is on the second floor of Rendleman Hall, Room 2101.

## Catalogs and Class Schedules

SIUE publishes annual undergraduate and graduate catalogs and fall, spring and summer class schedules. The undergraduate catalog provides information about academic programs; class schedules provide information about courses offered each term.

Course catalogs and class schedules are available online at siue.edu/registrar.

## Academic Calendar - 2015-2016

FALL 2015
August 24
August 29
September 7
November 23-29
December 14-18
December 19

Fall classes begin
Weekend classes begin
Labor Day Holiday
Thanksgiving Break Holiday
Final Exams
Commencement

Note: No weekend classes September 5-6 and November 28-29. Final exams for weekend classes are December 12 following the last class session

## SPRING 2016

| January 11 | Spring classes begin |
| :--- | :--- |
| January 16 | Weekend classes begin |
| January 18 | Martin Luther King, Jr. Holiday |
| March 7-13 | Break week |
| May 2-6 | Final Exams |
| May 6 \& 7 | Commencement |

Note: No weekend classes March 12-13 and March 2627. Final exams for weekend classes are April 30 following the last class session.

## SUMMER 2016

| May 9 | May Term begins |
| :--- | :--- |
| May 27 | May Term ends |
| May 30 | Memorial Day Holiday |
| May 31 | Summer Term begins |
| June 4 | Weekend classes begin |
| July 4 | Independence Day Holiday |
| August 6 | Summer Term ends |

Note: No weekend classes July 2-3.
FALL 2016
August $22 \quad$ Fall classes begin
August $27 \quad$ Weekend classes begin
September $5 \quad$ Labor Day Holiday
November 21-27 Thanksgiving Break Holiday
December 12-16 Final Exams
December 17 Commencement
Note: No weekend classes September 3-4 and November
26-27. Final exams for weekend classes are
December 10 following the last class session.

## SIUE Overview

Southern Illinois University Edwardsville traces its origin to a recommendation in 1956 by the Southwest Illinois Council for Higher Education. The council was convinced that higher education facilities were needed in the Metro East part of the greater St. Louis area. Council members hired consultants, whose reports documented that need, and appealed to Southern Illinois University, 100 miles south, to establish satellite campuses. In 1957, SIU opened two "residence centers" in Alton and East St. Louis. The University expected to enroll 800 students; nineteen hundred applied. By 1959, the number of students had doubled to 3,800 , greatly exceeding the physical facilities and demanding services faster than the University could develop and supply them. A planning team investigated sites in the Metro East and selected one just south of Edwardsville. In 1960, the Illinois legislature authorized a bond issue for construction of a new state university campus. Voter approval came in November 1960. After two and a half years of planning, University officials and area residents attended ground-breaking ceremonies for the first permanent buildings. In fall 1965, SIUE moved onto its new campus: 2,660 acres of rolling land and woods and waters. Much of the land still retains its natural shape. The academic center was designed by the internationally known architectural firm of Hellmuth, Obata and Kassabaum of St. Louis. The brick, slate and granite of the contemporary buildings complement the terrain and are softened by a carefully designed garden landscape that attracts visitors by its physical beauty. The campus has received several awards for its successful blend of the aesthetic and the functional in a setting that enhances growth and development and is now featured among the top 150 Illinois Great Places by the American Institute of Architects Illinois Council.

Today, SIUE is a premier Metropolitan University with nearly 14,000 students enrolled. SIUE is a fully accredited public institution, beautifully situated in Edwardsville just 25 miles from St. Louis. The University awards degrees in undergraduate and graduate programs encompassing the arts and sciences, nursing, education, business and engineering. Advanced professional degree programs include the Doctor of Dental Medicine, Doctor of Pharmacy, Doctor of Nursing Practice and Doctor of Education. The main campus includes University Park, a research park established to support economic development. The Edwardsville campus is
supplemented by campuses in East St. Louis and Alton.

While attending SIUE, students may choose to live on campus, in nearby communities, or at home. Academic scheduling is designed to accommodate individual student needs through the availability of weekday, evening and weekend classes. In every format, SIUE students are assured quality instruction. But at SIUE, education is more than classroom learning. Campus activities present students with an ever-changing spectrum of cultural, social, service and recreational experiences designed to complement the academic programs. Theater and dance productions, musical presentations, art collections, renowned speakers and artists, and swimming, biking and other recreational opportunities make SIUE an exciting place to live and learn. In addition, the campus is situated in a suburban area with access to the resources of the St. Louis area. SIUE is an NCAA Division I athletics competitor as a member of the Ohio Valley Conference, the Missouri Valley Conference (men's soccer) and the Southern Conference (wrestling).

At SIUE, more than 900 faculty members engage in instruction, research and public service. Though each of these activities enhances students' academic opportunities, it is through instruction that students benefit most directly. Eighty-one percent of the faculty possess terminal degrees earned at universities in the United States and abroad. In Fiscal Year 2014, SIUE faculty and staff received 185 grants and contracts, totaling nearly $\$ 40$ million in new externally sponsored research and public service awards. The University also emphasizes the instructional responsibilities of the faculty. Faculty are listed in this catalog in their respective disciplines.
SIUE offers a broad range of quality educational experiences at affordable tuition rates, an architecturally distinguished campus, the tranquility of suburban life, and access to the excitement of a major American city. All these factors contribute to the quality of educational opportunities at SIUE and make student experiences here everything education should be.

## Location

SIUE serves the most populous region of downstate Illinois. The campus is centrally located in the eastern metropolitan St. Louis area; most SIUE students live and work in the industrial and agricultural counties of the Metro

East. Interstate highways make the University convenient for those within a 60 -mile radius, an area that includes 2.7 million people.

St. Louis, 20 minutes southwest of the campus, is one of the oldest and richest cultural centers of the country, renowned for its symphony, opera, art museums and conservatories for the arts. It is a center for educational, medical, botanical, biochemical and business research. SIUE is one of four comprehensive universities among more than 20 institutions of higher education in the metropolitan area. Because the University is near a metropolitan area, students and faculty can experience the diversions of ethnic restaurants, large retail malls, touring Broadway plays and professional sports; they can enjoy as well the pastoral setting of the campus and nearby state parks, small towns and historic settlements.

## Students

With an enrollment of nearly 14,000 students, SIUE is large enough to provide for the educational needs of its students, yet sufficiently small to impart a personal approach. Thirty-eight percent of the students come from Madison and St. Clair counties in Illinois, nearly seven percent from Missouri. The remainder come from all other counties in Illinois, 41 other states, and 45 nations. Minority students represent 25 percent of enrollment. The majority of SIUE students are between ages 18 and 24 and have come to the University to prepare for the challenges of life and employment. Many students, however, are over 25 and have enrolled in the University after beginning their families and careers. Some return to complete an interrupted education, others to retrain for better jobs. Others return for the sheer excitement of learning. Twenty-one percent of all students attend part time; many work while taking classes. For them, evening and Saturday classes are especially convenient. Approximately 3,500 students live at SIUE's residence halls (Woodland Hall, Prairie Hall, Bluff Hall and Evergreen Hall) or Cougar Village Apartments. The University has developed a number of programs to recognize academic excellence among students. These include the Meridian Scholars Program, the Honors Program, the Honor Society of Phi Kappa Phi, and special recognition of outstanding students at annual honors recognition ceremonies.

## University Mission

In a mission statement, an organization tells its publics why it exists. The following mission statement was proposed by SIUE in May 2013
and approved by the SIU Board of Trustees in September 2013, replacing an earlier version:

Southern Illinois University Edwardsville is a student-centered educational community dedicated to communicating, expanding and integrating knowledge. In a spirit of collaboration enriched by diverse ideas, our comprehensive and unique array of undergraduate and graduate programs develops professionals, scholars and leaders who shape a changing world.

## University Vision

A vision statement indicates what an organization wants to become - a statement of aspirations, a statement of what it expects to look like in the future. The following Vision Statement was adopted by SIUE in May 2013, replacing the prior version:

Southern Illinois University Edwardsville will achieve greater national and global recognition and academic prominence through innovative and interdisciplinary programs that empower individuals to achieve their full potential.

## University Values

By adopting a statement of values, an organization signals to its publics those fundamental ideals and concepts on which it bases its plans and actions to achieve its vision. SIUE adopted the following statement in May 2013, replacing earlier statements:
Recognizing public education as the cornerstone of a democracy, SIUE fulfills its mission based on certain fundamental, shared values. We value:

## Citizenship

- Social, civic and political responsibility globally, nationally, locally, and within the University
- Active partnerships and a climate of collaboration and cooperation among students, faculty, staff, alumni and the larger community
- Sustainable practices in environmental, financial and social endeavors


## Excellence

■ High-quality student learning within and beyond the classroom

- Continuous improvement and innovation

■ Outstanding scholarship and public service
Inclusion

- A welcoming and supportive environment
- Openness to the rich diversity of humankind in all aspects of university life
■ Respect for individuals, differences, and cultures
- Intellectual freedom and diversity of thought


## Integrity

- Accountability to those we serve and from whom we receive support
- Honesty in our communications and in our actions


## Wisdom

■ Creation, preservation, and sharing of knowledge

- Application of knowledge in a manner that promotes the common good
■ Life-long learning


## Statement on Diversity

The SIUE Statement on Diversity reflects the University's commitment to recognizing and valuing the contributions of the breadth of humankind. This statement, adopted in April 2013, replaces an earlier version and is considered an expansion of the SIUE value of Inclusion.
All societies and peoples have contributed to the rich mix of contemporary humanity. In order to achieve domestic and international peace, social justice, and the development of full human potential, we must build on this diversity and inclusion.

- Southern Illinois University Edwardsville nurtures an open, respectful, and welcoming climate that facilitates learning and work. Each member of the University is responsible for contributing to such a campus environment.
■ Southern Illinois University Edwardsville is committed to education that explores the historic significance of diversity in order to understand the present and to better enable our community to engage the future.
- Integral to this commitment, Southern Illinois University Edwardsville strives for a student body and a workforce that is both diverse and inclusive.


## Achieving the Vision: SIUE's Long-Term Goals

An organization carries out its mission and achieves its vision by setting and working toward achieving long-term goals. The following longterm goals were adopted by SIUE in May 2013.

The primary focus of SIUE's long-term goals is student learning. Achieving the following goals will help students become lifelong learners and effective leaders in their professions and communities:

Prepared and Committed Students - Recruit
and engage a diverse student body ready to accept the rigorous challenges of higher education, to persist in academic study, and to become lifelong learners.
Innovative High Quality Programs - Develop and enhance curricular and co-curricular programs to fully support learning and degree completion.
Dedicated Faculty and Staff — Recruit, support, and retain a highly committed and diverse faculty and staff who continually strive for excellence by promoting student learning, producing significant scholarship, and serving multiple constituencies.

Supportive Campus Community - Foster an inclusive university community characterized by integrity, civility, shared governance and openness to and respect for different backgrounds, cultures, and perspectives.

Outreach and Partnerships - Develop and strengthen collaborative relationships to effect positive changes in the University, region, nation and world.
Physical and Financial Sustainability -
Develop, maintain and protect the University's assets by practicing and promoting economic, environmental, and social sustainability campus-wide.

## Admission to the University

SIUE offers educational opportunities to many students. Definitions of admission categories are provided in this section, along with admission criteria and procedures. Admission Counselors in the Office of Admissions (Rendleman Hall, room 2101) can answer any questions you may have about admission to undergraduate study at the University.

Applicants considering a specific major program should consult the appropriate department to learn about additional admission requirements for that program.

## Application Deadline Information

To be considered for admission, you must complete your admission file by the published deadline for the term for which you are seeking admission. For freshmen, priority consideration will be given to students whose applications are completed by the priority deadline. Applications received after the priority deadline are subject to additional review by the Admissions Review Committee. Applications completed after the final application deadline may not be considered for admission. A complete file consists of an application, application fee and all required documentation. If you do not enroll in the term in which you planned to enroll, but wish to enroll in a subsequent term, it is important that you file a new application by the deadline listed for the new term in which you plan to enter the University. Deadline exceptions may be determined by the director of Admissions.
International students seeking information about application deadlines should consult the section on international deadlines. If you do not enroll in the term in which you planned to enroll, it is important that you notify the Office of Admissions, Box 1047, or intladm@ siue.edu, of your change in plans before the deadline date for the new term of entry.
File Completion Deadlines through 2016
2015 Fall Semester - New freshmen, Priority Deadline: December 1,2014; Final Deadline: May 1, 2015; All other students: July 24, 2015

2016 Spring Semester - All undergraduate students: December 11, 2015
2016 Summer Term - All undergraduate students: April 29, 2016
2016 Fall Semester - New freshmen, Priority Deadline: December 1, 2015; Final Deadline: May 1, 2016; All other students: July 22, 2016

For a complete listing of deadlines, please visit www.siue.edu/apply.

## Application Fee

All applications for admission must be accompanied by a non-refundable application fee of $\$ 30$. Payments should be made in U.S. dollars by check or money order payable to SIUE. To pay by credit card, you are encouraged to apply online. Applications received without the fee will not be processed. Requests for a fee waiver are available online at siue.edu/apply/ $p d f / A p p F e e W a i v e r F o r m . p d f$ and should be sent to the director of Admissions.

## Application Procedures for Freshmen

The quickest and easiest way to apply and pay the application fee is online at siue.edu/apply. You may obtain a paper admission application from your high school or college counselor or print one from siue.edu/apply. If you are a high school senior or if you graduated from high school within the last five years, submit an official high school transcript and ACT or SAT score. If you are attending high school, the transcript must show at least six semesters of course work. A final transcript reflecting all high school course work and graduation verification also must be submitted after completion of high school. ACT or SAT scores that appear on the high school transcript are acceptable. You should make arrangements to take the ACT or SAT test as soon as possible. No admission decision will be made without those results.

If you graduated from high school five or more years before applying to SIUE, you must submit an official high school transcript showing graduation verification. ACT or SAT scores are optional. If you have taken the ACT or SAT test, you are encouraged to submit the scores. ACT or SAT scores that appear on the high school transcript are acceptable. Applicants who have passed the GED test must have the regional superintendent of schools or appropriate state office send an official copy of the scores to SIUE. To be considered official, all documents (high school transcripts, GED scores, ACT/SAT scores, and college/ university transcripts) must be mailed directly to the Office of Admissions, Box 1047, SIUE, Edwardsville, IL 62026-1047, by the office or institution that issues the document. Faxed documents are not accepted.

## Freshman Admission

For a complete list of freshman admission criteria, please refer to siue.edu/policies/1e1. shtml. Priority consideration for admission will be given to students whose applications are complete by the priority filing date. Applications
received after the priority date are subject to additional review by the Admissions Review Committee. Applications completed after the final application deadline may not be considered for admission.

## Placement Tests

Some entering undergraduate students should take standardized tests to help the University better understand their academic abilities and needs. The tests serve two purposes: first, they assess each student's skills in mathematics, writing, and/or reading in order to identify coursework that would be appropriate; second, by identifying the educational skills of those entering its classes the University can assess the quality of education it provides for its students.

For first-time, first-year students and for transfer students who have attempted fewer than 16 semester hours of credit elsewhere, placement into all mathematics, English, and academic development courses is based on a combination of factors including, but not limited to, ACT scores, high school grades and class rank, high school coursework, or placement tests. The chemistry readiness examination is required if you plan to major in biology, chemistry, computer science, engineering, medical technology, physics, pre-medicine, pre-dentistry, pre-veterinary medicine, or pre-pharmacy unless you have taken a college general chemistry course equivalent to CHEM 121 A at SIUE or scored a 23 or above on the math portion of the ACT test.
For transfer students who have attempted at least 16 semester hours of credit elsewhere, placement into these courses is based on ACT scores, satisfactory performance (grades of C or better) in mathematics and English courses completed elsewhere, or placement tests where evidence of satisfactory performance is absent. Students who do not take the placement tests are placed in the course for which they qualify based on ACT subscores or coursework.

## High School Students (course work before graduation from high school)

Capable high school students will be permitted to enroll as visiting students for University courses to be taken concurrently with their senior year of high school work. These students must meet the high school admission requirements for first-time freshmen and are subject to review by the director of Admissions. A letter of support written by the high school principal or guidance counselor is required. The director of

Admissions also may consider applications from exceptionally capable students who have not yet completed their junior year of high school. Students admitted through the early admission program must submit a final high school transcript after completion of high school. The final transcript must reflect their graduation date.

## Non-Traditional Freshmen General Education Development (GED) Test

Applicants without a high school diploma must have completed and passed the General Education Development (GED) test, which includes passing the state and federal constitutions. Applicants also must:

- correct any English, mathematics or reading deficiencies as indicated by SIUE placement tests, and
- complete at least one, 3 -semester-hour course in each of the following areas: science, social sciences, and foreign language, music, art, theater, dance or speech communication.
Courses must be selected from introductory and distribution general education courses numbered below 300 . These courses must be completed with a passing grade or the applicant must achieve a minimum grade of C on a proficiency [1] examination. Courses taken to meet this additional course requirement will not carry credit toward general education or major/minor requirements. Credit will be awarded as general elective credit toward graduation, i.e. elective credits not required by the major and/or minor.


## Transfer Admission

For complete transfer admission criteria, please refer to siue.edu/policies/1e1.shtml. Applicants are considered transfer students when they present course work from accredited two-year and four-year institutions, unless all hours were earned in college courses while still in high school. Students who have attempted at least 30 semester hours in courses at accredited institutions are admissible in good standing, provided they have earned a minimum cumulative 2.00 (C) grade point average in such course work at the previous accredited school(s) attended. Admission criteria for students who have attempted fewer than 30 semester hours in courses at accredited institutions are:

Good Standing - Students are admissible in good standing provided they have earned at
least a cumulative 2.00 (C) grade point average in such course work at the previous accredited school(s) attended and meet the criteria admission for entering freshmen.
Academic Probation - Students who do not have at least a cumulative 2.00 (C) grade point average as stipulated are admissible on academic probation, provided they meet the criteria admission for entering freshmen. The transfer average (i.e. the cumulative grade point average in all course work from all accredited institutions previously attended) is used only in determining the applicant's eligibility for admission. Once a student is admitted, the student's SIUE record will reflect the total number of acceptable transfer credit hours (hours earned in transferable courses with grades of A, B, C, D, pass, satisfactory, etc.), but the grade point average will be calculated only for work completed at SIUE. Applicants wishing to be considered for admission as transfer students must complete their admission files at least four weeks before the beginning of the term for which admission is sought. For applicants with at least 30 semester hours of course work as stipulated above, a complete file consists of an application for undergraduate admission, an official transcript from each institution previously attended, and the application fee. For applicants with fewer than 30 semester hours, a complete file consists of an application for undergraduate admission, an official transcript from each institution previously attended, credentials prescribed by the appropriate admission category for entering freshmen, and the application fee. (An official transcript must be sent by each institution directly to the Office of Admissions. All transcripts become the official property of the University and will not be returned or issued to another institution.) Questions about the acceptability of specific courses for admission and/or for transfer credit should be directed to the Office of Admissions.

## Dual Admission Program

SIUE has established partnerships with various community colleges to establish dual admission programs for students planning to pursue a baccalaureate degree following attendance at the community college. This program is designed to provide a seamless transition between the community college and the University. Students pursuing transfer degrees or similar curricular paths at one of our partner schools may be eligible for the Dual Admission Program. A list of participating community colleges is available at
the SIUE transfer website, siue.edu/transfer.
Students attending one of our partner community colleges should consider applying for dual admission. The following criteria will be reviewed to determine whether the program is the best option for those applying:

- Currently pursuing an AA, AS, equivalent transfer degree or the General Education Core Curriculum (GECC) as outlined by the Illinois Articulation Initiative (IAI)
- Fewer than 30 semester hour earned at the time of application

■ Minimum cumulative GPA of 2.0

- Minimum of two semester remaining at the community college
Students interested in participating in the Dual Admission Program while enrolled at their participating community college must complete an SIUE Dual Admission application indicating the term they plan to attend SIUE. Admitted students receive an acceptance letter from the University with information necessary to access resources at SIUE. Students are encouraged to engage in selected activities to help them connect with the University. Students participating in this Dual Admission Program receive a waiver of SIUE's admission application fee, ongoing automatic evaluation of transfer credit each semester, academic advisement as appropriate, and periodic program updates. At the end of each semester the community college will forward an official transcript to SIUE. Awarded transfer credit will be posted and available to the student on CougarNet. Additionally students may run degree audits to monitor progress toward their intended undergraduate degree program.


## $2+2$ Agreements

Community college students who plan to pursue specific majors at SIUE may benefit from $2+2$ programs. These agreements allow students to follow a specific curriculum while attending their first two years at the community college, then transferring into their intended major at SIUE. These programs allow students to efficiently progress toward completion of a bachelor's degree program. For programs that offer competitive admission at SIUE, $2+2$ agreements ensure that transfer students are as prepared as SIUE students to compete for admission. A list of $2+2$ programs is available from the SIUE transfer website, siue.edu/transfer.
Students interested in participating in a $2+2$ program while enrolled at their community
college must complete a $2+2$ application indicating the term they plan to attend SIUE. Admitted students receive an acceptance letter from the University containing information necessary to access resources at SIUE. Students are encouraged to engage in selected activities to help them connect with the university. Students participating in this program receive a waiver of SIUE's admission application fee, ongoing automatic evaluation of transfer credit each semester, academic advisement as appropriate, and periodic program updates. In addition, out-of-state students participating in formal $2+2$ agreements may qualify for a special tuition rate of 1.2 times the in-state rate. SIUE participates in the Illinois Articulation Initiative. More information is available online at siue.edu/ transfer.

## Admission of International Students and Students in Any of the Categories Below

Students applying for admission in any of the following categories will be processed through the Office of Admissions. Inquiries should be directed to the Office of Admissions at intladm@ siue.edu. Additional information is available online at siue.edu/international. Students Holding or Requiring F-1 (Student) Visas are expected to satisfy appropriate academic requirements, demonstrate English language proficiency, and provide acceptable evidence of adequate financial resources. Applicants with U.S. educational credentials will be reviewed for academic eligibility under the same standards applied to domestic students
Standard reference materials published by recognized organizations such as (but not limited to) the American Association of Collegiate Registrars and Admissions Officers and the NAFSA: Association of International Educators will be used as guidelines to evaluate foreign academic credentials for academic eligibility, and level of placement. Applicants who are seeking university-level transfer credit for courses completed at an institution outside the United States must have their transcripts evaluated by a professional credential evaluating service such as World Education Service (WES) - wes.org, or Educational Credential Evaluators, Inc (ECE) ece.org. SIUE will use this evaluation of credit as a guideline and SIUE reserves the right to award appropriate credit. F-1 applicants whose recognized first language is not English must provide acceptable verification of their English language proficiency. Verification must be on file
by the appropriate deadline stated below. Details are found under the heading "Applicants Whose First Language Is Not English."
All F-1 applicants must submit to the Office of Admissions - in advance of admission proof of adequate financial resources. Financial arrangements must be approved by the appropriate deadline below. Questions about financial matters should be directed to the Office of Admissions. F-1 applicants applying from abroad must observe the following admission application file completion deadlines:
International Deadlines Fall: July 15; Spring: November 15; Summer: April 15

## Health Insurance Requirement

In support of immigration requirements for $\mathrm{F}-1$ and $\mathrm{J}-1$ visa holders, SIUE requires that international students purchase and maintain coverage with a University approved international student insurance plan for the duration of their studies at SIUE. Students who do not maintain this coverage will be blocked from registration. Regulations (22.C.F.R. § 62.14) state that $\mathrm{J}-1$ students and their dependents must have adequate coverage for the duration of their studies in the United States. Federal regulations require F-1 students to verify adequate funds for living expenses. Such living expenses should include health insurance. The University, in compliance with federal regulation, has set the following as minimum insurance requirements for international students:

- $\$ 50,000$ per accident or illness
- repatriation of remains in the amount of \$7,500
■ $\$ 10,000$ coverage for medical evacuation
- deductibles not to exceed $\$ 500$ per accident or illness

Insurance requirements apply both to $\mathrm{J}-1$ and F-1 students. No exceptions will be made. All exchange students ( $\mathrm{J}-1$ and $\mathrm{J}-2$ ) are required to have sickness and accident insurance and medical evacuation and repatriation insurance in effect for the duration of their exchange visitor status. A written copy of the policy in English must be provided to SIUE Health Service. A representative from Health Service will be scheduled to speak to the international students during their orientation week to inform students about insurance policy requirements and procedure.

## Applicants with Foreign Academic Credentials

Standard reference materials published by recognized organizations such as (but not limited to) the American Association of Collegiate Registrars and Admissions Officers and the NAFSA: Association of International Educators will be used as guidelines to evaluate foreign academic credentials for academic eligibility, level of placement. Applicants who are seeking university-level transfer credit for courses completed at an institution outside the United States must have their transcripts evaluated by a professional credential evaluating service such as World Education Service (WES) - wes. org, or Educational Credential Evaluators, Inc (ECE) - ece. org. SIUE will use this evaluation of credit as a guideline and SIUE reserves the right to award appropriate credit. Applicants are responsible for making all appropriate arrangements for providing official academic records attesting to all secondary and postsecondary education. Credentials not available in English must be submitted with an original and an attested translation from the same institution as the original. University-level academic work will be considered for transfer of credit as appropriate. Secondary and post-secondary school transcripts of applicants' academic records (including certification of graduation and the title of the diploma or certificate awarded when appropriate) must be sent directly to the Office of Admissions. Each transcript must bear the official's signature and the school's official seal. Photocopies of educational records and documents are acceptable only if they bear an original certification of authenticity from the issuing school or examination board. Notarized copies of educational records and documents and other exceptions to the above-stated foreign academic credentials policy will be considered when recommended by recognized organizations such as AACRAO and NAFSA.

The University reserves the right to verify the authenticity of applicants' academic records with the issuing institutions.

Undergraduate application materials for students whose first language is not English include a detailed explanation of procedures and required credentials and fees, and are available online at siue.edu/ international. Materials will be sent upon request. F-1 applicants must complete their admission application by the deadline stated in the section on "Students Holding or Requiring F-1 Visas." Other applicants for spring
or summer must complete their admission application no later than the published deadline.

## Applicants Whose First Language is Not English

All students with $\mathrm{F}-1$ visas and/or foreign academic credentials whose first language is not English must demonstrate in advance of admission adequate English language proficiency. English language proficiency must be verified in one of the following ways:

■ Applicants may sit for either the International Testing Program, the International English Language Testing System (IELTS), or the Special Center Testing Program of the Test of English as a Foreign Language (TOEFL) and have an official score report sent directly to the Office of Admissions. The minimum acceptable TOEFL score is 550 (paper-based test) and 79 (iTB). The IELTS acceptable band range is 6.5 .

- Applicants may sit for the Michigan Test of English Language Proficiency administered at SIUE. Michigan Test scores will not be accepted from any other institution. The minimum accepted raw score is 66 .
- Applicants may submit a properly certified copy of their General Certificate of Education administered by a British testing agency showing a grade of $\mathrm{A}, \mathrm{B}$, or C in the subject English Language. Recognized equivalent examinations also will be considered.
- Applicants may submit academic records certifying that they have graduated from a recognized secondary school, college or university at which English is the exclusive language of instruction.king country.
- Applicants may submit academic records certifying that they have completed courses totaling at least six semester hours equivalent to English 101 (English Composition I) and English 102 (English Composition II) with earned grades of C or better at a regionally accredited college or university in the United States. Applicants may sit for Universityadministered placement tests and meet internally recognized indicators of college entry-level competence in English and reading.


## Admission as a Visiting Student

Applicants who have at least a high school diploma or equivalent and wish to take undergraduate courses for credit, but who are not interested in pursuing a baccalaureate degree
at SIUE, may be admitted to the University as a visiting student. These students must submit an application to be a visiting student. Students admitted as a visiting student will be allowed to enroll in undergraduate courses for which they have met the prerequisites. Applicants still in high school may be considered by the Director of Admissions for admission as visiting students. Applicants wishing to be considered for admission as visiting students must complete their admission files at least four weeks before the beginning of the term for which admission is sought. Students in this category are not eligible to receive financial aid. However, if a visiting student is pursuing a degree at another postsecondary institution, the student may be eligible for VA benefits or student employment. Students wishing to apply for student employment or VA benefits will need to submit appropriate documentation confirming their degreeseeking status at a parent institution.
Students in this category may not accumulate more than 30 semester hours of credit at the University. If a student who has accumulated 30 semester hours of credit wishes to continue enrollment at SIUE, he/she must apply to the University as a degree-seeking student and satisfy appropriate criteria. Continued enrollment will not be permitted until the student satisfies admission criteria or appeals to the director of Admissions. Applicants previously denied admission in degree-seeking categories are not admissible as visiting students.

## Change of Admission Status

Students wishing to change from visiting to undergraduate degree-seeking status must submit an application at least four weeks before the requested term and meet the appropriate admission criteria. Performance in courses completed at SIUE will be considered.

## Re-admission of Former Students (Undergraduate)

Former students who have not attended SIUE for one calendar year (i.e., registered and paid fees) must apply for re-admission. Re-admission criteria for former students are:

- Students whose academic classification is "good standing" or "academic probation" will be admitted with the same classification and class/college/major. Students desiring to change majors on the application for readmission, or who previously were admitted to programs that are no longer available, shall be readmitted with undeclared status. These
students may request a new major through the advisement process and must meet the entrance requirements for that program.
■ Students whose academic classification is "academic suspension" will be admitted with undeclared status on "academic probation," provided the student has not had more than one suspension. Such students must receive academic counseling and advising before enrolling in classes and must adhere to the agreed upon plan of action developed with their advisor.
- Students who have had two or more academic suspensions and have completed a minimum of 30 credit hours of course work at any other regionally accredited college or university with a minimum cumulative grade point average of 2.00 since their last attendance at SIUE will be admitted in undeclared status on academic probation.


## Academic Forgiveness

Former SIUE undergraduate students may have the option of being treated as transfer students for the purpose of calculating their SIUE grade point average after re-entry if they have been absent from SIUE for six years (from the last term of enrollment) and have:
■ successfully completed 30 baccalaureateoriented semester hours at an accredited institution of higher education; or have
■ completed an associate of arts, associate of science, or associate of science and arts degree at an accredited institution of higher education.

## Determination of Residency Status

Student 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 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 selfsupporting, 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 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 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:

- they were residents of the state at the time of entry into military service, or
■ they were treated as residents while in the military by attending school at this University while stationed within the state, or
- 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 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. 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, available 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 nonresident 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

Registration generally is available to students by the end of March for summer and fall terms and by the end of October for the spring term. Specific registration schedules are published on the Registrar's website at siue. edu/registrar.

## New Student Registration

Entering freshmen will attend Springboard to Success, a mandatory pre-entry advisement program that will begin their university experience and allow a smooth transition to SIUE. Students will meet with an academic advisor, register for classes, get an SIUE student ID and take care of other University business. Entering transfer students who are undeclared are required to attend an hour-long advising appointment with an academic advisor in the Office of Academic Advising. All other students, except visiting students, must meet with an academic advisor before registration. During this advising session, an enrollment (alternate) PIN is issued that will be required to access Web registration. It is important that you plan your schedule appropriately, ensuring that all prerequisites and class restrictions have been satisfied before enrollment. Prerequisites and class restrictions may be reviewed in the class schedule published through CougarNet. To avoid problems with enrollment, please follow these guidelines:

- Meet with an advisor.
- Retain your Enrollment PIN until the term begins.
- Ensure that you have cleared any holds that may be on your record.
- Ensure that pre-requisites and class restrictions are satisfied.
■ Obtain approval to enroll when necessary.
- Register early in the registration period.
- Obtain your billing information through CougarNet.
- Make payment by the due date.

Registrations may be cancelled by the University for academic, disciplinary or financial reasons. While the University reserves the right to cancel students for administrative reasons, it is the student's responsibility to drop classes in which enrollment is no longer desired. Schedule changes may be made online through the Friday before the first day of the term. Students are expected to register before the term begins. It
is advisable to register as early as possible to ensure space in desired classes. Beginning with the first day of the term, students will be assessed a non-refundable $\$ 25$ late registration fee. No registrations will be accepted after the second week of the semester.

## Changes in Registration

Students may make changes to their class schedule online via Web registration or in the Service Center, Rendleman Hall, room 1309, or in the unit in which the student originally registered, through the Friday before the first day of class. Beginning with the first day of the term, all schedule changes must be made in the Service Center. The change is official only when this procedure is complete.
Students officially are registered for only those courses and sections appearing on their registration documents, and as modified by official changes they have made with their advisor. Students may add classes using CougarNet provided class prerequisites and restrictions have been satisfied, an enrollment (alternate) PIN has been obtained and, if appropriate, the student does not have any holds. In addition, students may process changes in the Service Center using a signed registration or add/drop form. All schedule changes should be confirmed using CougarNet.

## Adding Classes

Effective the first day of the term, all undergraduate classes are considered "closed." Students who want to add a class after the first day must obtain the instructor's written approval. This permission to gain admission to the class generally will be given on the registration form, which must be taken to the Service Center, Rendleman Hall, room 1309, for processing by the end of the first week of classes. After the first week, approval of the department chair and advisor also are needed to add a class. The only classes that may be added after the second week are those that start after the end of the second week, including workshops and independent reading classes. Exceptions must be approved by the appropriate dean and the registrar. If students add classes that increase the amount of tuition and fees they are required to pay, the procedure is handled in one of two ways: 1 . If tuition and fees have not been paid, a new tuition calculation is completed to reflect the increased amount. 2. If tuition and fees have been paid, the additional hours will generate a new tuition cost for that term, and the students will receive an additional e-bill in most cases.

## Dropping Classes

Students who need to drop a course must do so at the Service Center. Students may drop a course within the following guidelines by submitting a completed add/ drop form with authorizations as appropriate. Students dropping a course during weeks $1-2$ will receive a refund of tuition and fees for the class. After week 2 , students remain financially responsible for all tuition and fees with no refund given. Students dropping all classes for the term should refer to the section titled "Withdrawing from the University."

## Fall and Spring Semesters

Weeks 1-2 - Students may drop a class without permission of the instructor and have no entry on the transcript.
Weeks 3-10 - Students may drop a class without permission of the instructor. A grade of "W" automatically is assigned.
Weeks 11-13 - Students may drop a class only with approval of the instructor and advisor; a grade of "WP" or "WF" must be assigned by instructor; "WF" is computed in the GPA as an "F."

After Week 13 - No class may be dropped; a grade other than "W," "WP," or "WF" must be assigned by the instructor. Summer Term

Weeks 1-2 - Students may drop a class without permission of the instructor and have no entry on the transcript.

Weeks 3-5 - Students may drop a class without permission of the instructor. A grade of " $W$ " automatically is assigned.
Weeks 6-8 - Students may drop a class only with approval of the instructor and advisor; a grade of "WP" or "WF" must be assigned by instructor; "WF" is computed in the GPA as an "F."

After Week 8 - No class may be dropped; a grade other than "W," "WP," or "WF" must be assigned by the instructor.
Different deadlines apply to weekend, short-term classes and workshops scheduled in nontraditional formats. Contact the Service Center for information or visit the registrar's website, siue.edu/registrar. Absence from class does not constitute dropping a class or withdrawing from the University, so you must follow these instructions to avoid the assignment of failing grades. However, through the 10th week of each semester, faculty may request that students who
fail to meet attendance requirements be removed from class. Because students who drop all classes are considered to be withdrawing from the University for that term, that transaction must be initiated according to the procedure below.

## Withdrawing from the University

Students who need to withdraw from the University during any term must initiate official withdrawal procedures in the Service Center, Rendleman Hall, room 1309. All withdrawals must be completed by the end of the 13th week of classes during fall and spring, and by the end of the 8th week for summer full-term classes. Different deadlines apply to short-term classes or workshops scheduled in non-traditional formats. Questions about withdrawal deadlines should be directed to the Service Center. A 100 percent refund of tuition and fees (except the late registration fee) is possible only if withdrawal and refund requests are officially completed within the first two weeks of the term. All textbooks or library materials on loan must be returned before a withdrawal is considered effective and a refund is approved.

## Tuition and Fee Refund

Withdrawals generally must be completed by the end of the 8th week of classes. Different deadlines apply to short-term classes or workshops scheduled in non-traditional formats. Questions about withdrawal deadlines should be directed to the Service Center or the Office of Continuing Education as noted above. A 100 percent refund of tuition and mandatory fees (including the Student-to- Student Grant fee but excluding the late registration fee) is possible only if withdrawal and refund requests are officially completed within:

- the first 2 weeks of the term for a course that lasts 8 weeks or more;
■ the first week of the term for a course that lasts at least 4 weeks, but less than eight weeks; or
- the 1st class meeting for a course that lasts less than 4 weeks.

All textbooks or library materials on loan must be returned before a withdrawal is considered effective and a refund is approved. A partial refund of 50 percent of tuition shall be given if the student's withdrawal from the University is processed after the dates outlined above, and before the deadlines outlined below:

■ the last day of the 4th week for a course that lasts 8 weeks or more;

- the last day of the 2nd week for a course that lasts at least 4 weeks, but less than 8 weeks;
- the 4th class meeting for a course that lasts at least 11 days, but less than 4 weeks;
- the 2nd class meeting for a course that lasts 10 days or less.
Students enrolled in courses lasting longer than 8 weeks and who receive a partial refund of tuition shall be given a 100 percent refund of mandatory student fees if they officially withdraw from the university by the last day of the third week.
For all other students who receive a partial refund of tuition, no mandatory fees shall be refunded. Students who receive a partial refund of tuition shall be assessed an administrative fee of $\$ 100$. No tuition or mandatory fees shall be refunded after the deadlines stated above except for students entering military service for six months or longer, or students in grave circumstances who demonstrate to the satisfaction of the chancellor or the chancellor's designee that, for reasons beyond their control, the students are unable to continue their educational program. Nothing in this policy shall preclude the chancellor from complying with any applicable state or federal law or regulation.

Students receiving notification of academic suspension after completing registration for the next term automatically will be withdrawn from the University.

Students who already have paid tuition and fees for the next term must contact the Service Center or the Office of Continuing Education to initiate a refund. Please consult the Registrar's website at siue.edu/registrar for withdrawal and refund deadlines. Students who receive Title IV Financial Aid (Pell, SEOG, Direct and/ or Perkins Loans), and withdraw completely are subject to the federal Return of Title IV Funds policy. According to Return of Title IV Funds policy, students earn their financial aid on the basis of the portion of the semester that is completed. The University also earns a portion of the financial aid. Aid that is determined to be unearned by the student and/or University must be returned to the appropriate Title IV program. Students who are subject to Return of Title IV funds will be contacted by the Financial Aid Office and informed of the impact of withdrawing under this policy, as well as the amount of any balance owed to the University after unearned aid has been returned.

## Academic Policies and Requirements

Classification of Students

Students seeking their first bachelor's degree are classified according to the number of credit hours they have earned.

## Class Semester Hours Earned

| Freshman | $0-29$ hours |
| :--- | :--- |
| Sophomore | $30-59$ hours |
| Junior | $60-89$ hours |
| Senior | 90 or more |

One semester hour represents the work completed in a lecture course that students attend for 50 minutes each week for 15 weeks; laboratory courses may require more than 50 minutes each week for one semester hour. One quarter hour of credit is equivalent to two-thirds of one semester hour; one semester hour equals one and one-half quarter hours.
Classifications not determined by the number of credit hours, are non-degree, senior with degree, and visiting student.

## Class Attendance

Upon registration, students accept responsibility for attending classes and completing course work or officially withdrawing from classes in which they are not in attendance. It is the student's responsibility to ascertain the policies of instructors with regard to absence from class, and to make arrangements satisfactory to instructors with regard to incomplete course work. Although absence from class does not constitute dropping a class or withdrawing from the University, faculty have the authority to request the removal of students who fail to meet attendance requirements. It is particularly important to attend the first meeting of a class. Failure to attend the first session could result in your place being assigned to another student. However, failure to attend the first session of a course does not necessarily mean that you have been withdrawn from it. If you wish to withdraw from a course, and possibly qualify for a reduction of tuition and fees, you must formally withdraw from the course at the Service Center. Students are financially and academically responsible for all classes in which they are enrolled regardless of their attendance; however, eligibility to retain federal, state and institutional financial aid will be dependent on institutional record of continued attendance or active participation in class.

## Academic Load

The normal academic load for students is 15 hours. The maximum is 19 hours. Students with a 3.25 grade point average or above for the
preceding term may be permitted to take more than 19 hours with the approval of the dean or director of their academic unit. A normal load is 6 hours for summer term; the maximum summer load is 12 . Students on scholastic probation may not take more than 12 hours without approval of the advisor. Students employed full-time should not register for more than six hours.
Students who carry 12 or more credit hours in fall or spring semesters or 6 credit hours in summer are considered full-time students. However, a student attending the University under scholarships, loans, or other types of financial aid requiring full-time enrollment should check to make certain this meets the requirements of the specific financial aid program. For enrollment certification purposes, Universitysponsored cooperative education participation is considered equivalent to full time enrollment. This requires formal enrollment in an approved cooperative education course through the Career Development Center.
Undergraduate students are expected to spend at least two hours in preparation for every hour in class.

## Application for a Major or Minor

Undeclared students who wish to apply for a major or minor should make an appointment with an advisor in Academic Advising to complete a major and/or minor approval form. Acceptance into the major program of study is at the discretion of the academic department. Students who are completing courses to meet high school course deficiencies and/or to satisfy entry competencies (i.e., required academic development courses) may apply for a major or minor only after successful completion of those requirements. Students are advised by the department of their major after acceptance into the major.

To change your major or minor, go to the department of your intended new major to complete a major and/or minor approval form.
Those who have applied for a major and wish to apply for a second major or minor should submit their request to the department of the primary major. You may request a minor when applying for a major, or later, by submitting a request to the major department.

## Double Majors

Students may receive a single degree with a major in more than one discipline. A double major may provide richer preparation for
graduate study or for a vocation. Those with a double major will have a first major, usually the one for which they first applied, and a second major. Students must satisfy all requirements for both majors, although some requirements need be accomplished only once. For example, general education requirements need to be satisfied only once. If both majors require a foreign language, only one foreign language is needed. Some majors require a minor concentration; students with a second major would satisfy the minor requirement. Students may apply for a double major when applying for the first major. Students who have been admitted to a major and wish to apply for a second major should first discuss the process with the advisor for the first major. A double major is not the same as completing two degree programs. Requirements for a second baccalaureate degree appear in the graduation section of this catalog.

## Transfer Credit

Students who plan to take one or more classes from another institution and apply that credit to an SIUE degree should obtain prior approval for the course from the appropriate academic advisor to ensure the course is acceptable for program credit. This is especially important for students declared into a major.

## Credit Earned by Examination, Extension and Correspondence

While the University does not maintain a correspondence school or extension courses, such courses taken from institutions accredited by appropriate regional accreditation associations are regularly accepted, if the grade earned is D or above. A maximum of 48 semester hours may be completed through correspondence and extension courses; of this total, not more than 15 semester hours may be taken through correspondence.

## Proficiency Examinations

Students may earn course credits by demonstrating proficiency in certain subjects. Instructional Services (Student Success Center 1256) maintains a list of those courses for which out-of-class proficiency examinations are regularly available and provides information pertaining to those exams at siue.edu/is/test/ proficiency.
Students wishing to take a proficiency examination in any course (general education courses as well as others) should pick up a proficiency exam form at Instructional Services. In many cases, course guides and reading lists
are available from either Instructional Services or the academic department for which the exam is given. For information regarding general education credit for proficiency examinations, please refer to the section titled Proficiency Examinations for General Education Credit. Students may take any available proficiency examinations subject to the approval of the department and the following limitations:

- Proficiency credit may not be awarded for a course in which a grade has been previously awarded. This includes withdrawal grades of W, WR,WP, or WF;
- A proficiency examination for a specific course may not be taken more than once.
Academic schools or the College of Arts and Sciences may apply additional restrictions, so students should check with the department before taking a proficiency examination. Departments will determine grades on proficiency examinations based on either an A, B, C, no credit scoring option, or a pass/no credit scoring option. After a student has completed a proficiency examination, credits and grade points are granted as follows:
For a grade of $\mathrm{A}, \mathrm{B}$, or C on a proficiency examination, the academic record shows the name of the course, hours of credit granted, grade earned, and a notation "out-of-class proficiency" or "in-class proficiency." The grade earned counts in the grade point average. For a pass score, credit is given without a calculated grade. The academic record shows the name of the course, hours of credit granted, a grade of "P," and a notation of "out-of-class proficiency" or "in-class proficiency." The grade earned does not count in the grade point average.
For a grade of D or F on a proficiency examination, no credit is awarded. The academic record shows nothing regarding the proficiency examination. However, the proficiency examination grade report form is retained in the student's file for reference.

Students have the option of enrolling in the course for which they have taken the proficiency examination if they are not satisfied with their proficiency examination grades. In-class proficiency examinations are administered early in the term. A student must be enrolled in the course to receive in-class proficiency credit. Examinations are graded in time for those who pass the test to add another course. Names of students who have passed the early examinations are carried on the class roll; students receive credit for the course at the end
of the term. Students who fail in-class proficiency examinations continue in the course.

## Advanced Placement Program of the College Board

High school students who wish to seek advanced placement and college credit should apply through the Advanced Placement Program of the College Board, P.O. Box 6671, Princeton, New Jersey 08540-6671. Advanced classes, which qualify for this purpose, are offered in many
high schools. A national examination measures the achievement of students to determine at what point they should begin college study of that subject. Scores are assigned as follows: 5 , extremely well qualified; 4 , well qualified; 3 , qualified; 2 , possibly qualified; and 1 , no recommendation.
Courses for which earned hours credit may be awarded through advanced placement are the following:

| EXAM TITLE | REQUIRED MINIMUM SCORE | SIUE EQUIVALENT COURSE AWA | AWARDED HOURS |
| :---: | :---: | :---: | :---: |
| Art History | 4 | ART 111 - Introduction to Art | 3 |
| Studio Art: Drawing* | 4 \& favorable portfolio review | ART 112A - Basic Studio: Drawing I | 3 |
| Studio Art: 2-D Design* | 4 \& favorable portfolio review | ART 112B - Basic Studio: Visual Organization I | 13 |
| Studio Art: 3-D Design* | 4 \& favorable portfolio review | ART 112D - Basic Studio: Visual Organization II | III 3 |
| Biology | 4 | BIOL 111 - Contemporary Biology | 3 |
| Calculus AB | 3 | MATH 150 - Calculus I | 5 |
| Calculus BC | 3 | MATH 150 - Calculus I AND MATH 152 - Calculus II | 10 |
| Calculus BC | 1 or 2 plus 3 on Calculus AB subpart | MATH 150 - Calculus I | 5 |
| Chemistry | 3 | CHEM 121A - General Chemistry | 4 |
| Chemistry** ${ }^{\text {a }}$ | 3 and successful petition for lab credit | CHEM 121A - General Chemistry AND CHEM 125A - General Chemistry Lab | 5 |
| Chemistry | 4 | CHEM 121A - General Chemistry AND CHEM 121B - General Chemistry | 8 |
| Computer Science A | 4 | CS 140-Introduction to Computing I | 4 |
| Computer Science AB | 4 | CS 140 - Introduction to Computing \| AND <br> CS 150 - Introduction to Computing II | 7 |
| Economics - Macro | 4 | ECON 111 - Principles of Macroeconomics | 3 |
| Economics-Micro | 4 | ECON 112 - Principles of Microeconomics | 3 |
| English Language \& Comp | 4 | ENG 101 - English Composition | 3 |
| English Literature \& Comp | 4 | ENG 111 - Introduction to Literature | 3 |
| Environmental Science | 5 | ENSC 220 - Principles of Environmental Sciences | nces 3 |
| European History | 4 | HIST 111A - Intro to History of Western Civilizatio HIST 111B - Intro to History of Western Civilizatio HIST 113 - Survey of Ancient History OR HIST 114 - Survey of Medieval History | zation OR3 zation OR |
| Foreign Languages |  | Credit awarded on an ad hoc basis Students must contact department directly. |  |
| Government \&Politics - U.S. | S. 4 | POLS 112 - American National Government \& Politics 3 |  |
| Government \& Politics -Comparative 4 |  | POLS XXXX - Social Sciences Breadth Social Science Distribution | 3 |
| Human Geography | 4 | GEOG 205 - Human Geography |  |


$\left.$| EXAM TITLE | REQUIRED <br> MINIMUM | SIUE EQUIVALENT COURSE |
| :--- | :--- | :--- | :--- | | AWARDED |
| ---: |
| HOURS |
| SCORE | \right\rvert\,

## *Art and Design

Students scoring a 4 or 5 on the AP Drawing, AP 2-D Design, or AP 3-D Design Portfolio exams may arrange to bring their complete portfolio/s to the Art and Design Department for faculty review. If the review is favorable, students will receive credit for the comparable SIUE course indicated. . [Process: Students should go to Instructional Services (SSC 1256) indicating which Art studio course they wish to receive credit, pick up the proficiency form, submit to Art \& Design (location AD 1201) and set up appointment to show portfolio. If credit is awarded, it will be posted as SIUE proficiency credit.]
**Chemistry
Students must have successfully petitioned the Chemistry Department for lab credit. Chemistry will notify the Office of the Registrar that lab credit should be granted. [Process: Students should go to Instructional Services (SSC 1256), pick up proficiency form, submit to Chemistry Chair (location SL 2325) and set up appointment to show high school chemistry information such as lab notes, text book, etc. Student may need to demonstrate lab technique by taking a proficiency exam. If credit is awarded, it will be posted as SIUE proficiency credit.]

Students should send official results of advanced placement examinations to the Office of the Registrar. Credit earned through Advanced Placement examinations may be applied toward the 120 hours required for graduation. Please note this credit is not used in computing the SIUE grade point average. Advancement Placement credit granted at another accredited university or college is transferable to SIUE. Advanced Placement examinations are considered proficiency examinations. See the section about proficiency examinations in this catalog.

## College Level Examination Program (CLEP)

SIUE will grant credit to students for successful completion of College Level Examination Program (CLEP) tests under the following conditions:

■ A maximum of 32 hours of CLEP credit is applicable toward a baccalaureate degree. For information regarding general education credit for CLEP examinations, please refer to the section titled Proficiency Examinations for General Education Credit.

■ Credit will be awarded for a CLEP subject examination when approved by the SIUE department offering a comparable course.

- Test credit will not be allowed when students previously have received credit for comparable courses or when currently enrolled in a comparable course.
- Students may take the tests before enrolling at the University. Final recording of credit on the SIUE record is contingent upon matriculation at the University and acceptable scores.

■ When approved, credit will normally be awarded for subject examinations on the basis of the number of credit hours in the pertinent courses.

CLEP exams are available by computer only. For information, please call Testing Services at 618-650-1246 or follow the link to CLEP on the testing web page at siue.edu/is/test. Persons who wish to apply for credit through SIUE should have official results sent to the Office of the Registrar.

DANTES/DSST Examinations
SIUE will grant credit to students with passing scores. Credit granted for DANTES/DSST and

CLEP is subject to a maximum of 32 hours toward a baccalaureate degree. See siue.edu/ transfer/ for details.


Accountancy, Biological Sciences, Chemistry, Computer Sciences, Mathematics \& Statistics, or Physics Majors at SIUE should be alert to restrictions in credit granted through CLEP. No credit toward graduation can be earned through CLEP after credit has been received for more advanced work in the subject.

## Military Experience Credit

Students who have completed military basic training may be eligible for 2 hours of credit for physical education and 2 hours for health
education credit and will have satisfied the University's Health Experience requirement.. Those who have served six months or more of active duty may receive an additional 2 hours of credit for military studies.
In evaluating course work in formal service school training programs, SIUE follows the recommendations of the American Council on Education Guide to the Evaluation of Educational Experience in the Armed Forces.
Evaluation of military experience credit and course work in formal service school training
programs is done in the Office of the RegistrarTransfer Center, Rendleman Hall, Room 1218.

## Grading System

The University uses the following grading symbols:
A Excellent - 4 credit points
B Good - 3 credit points
C Satisfactory - 2 credit points
D Poor - 1 credit point
F Failure
AU Audit - no grade or credit hours earned
DE Deferred - used only for the first semester course of a two-semester Senior Assignment sequence.
H Passed with Honors
I Incomplete - all work required for the course during the term was not completed; students have the permission of the instructor to do so within a specified time period. For more information about the incomplete grade policy, see the section titled Incomplete Grades.

PR Progress - awarded only for skills courses. PR grades are not included in grade point average calculations. To earn credit for a course in which a PR grade was earned, students must repeat the course and earn a passing grade.
P Pass - used for courses taken under Pass/No Credit option.
$\mathbf{N C}$ No Credit - used for courses taken under Pass/No Credit option; no credit hours earned.
NS Non attendance - used when the instructor has no record of attendance or active participation
S Satisfactory - used for noncredit courses and thesis and may be used for internships or practica at the program's discretion

U Unsatisfactory - used for noncredit courses and thesis and may be used for internships or practica at the program's discretion
UW Unauthorized Withdrawal - calculated as an F in grade average
W Withdrawal. Authorized withdrawal - work may not normally be completed
WP Withdrew Passing
WF Withdrew Failing - calculated as F in grade average

For more information about withdrawal grades and procedures, refer to the sections titled Changes in Registration and Withdrawing from the University.

## Grade Point Average (GPA) Calculation

Only SIUE courses are used in calculating the cumulative grade point average (GPA). The GPA is calculated as follows:

A-4 Points
B - 3 Points
C -2 Points
D-1 Point
F-0 Points
AU — Audit (0 Points)
DE — Deferred (0 Points)
I — Incomplete (0 Points)
H — Passed with Honors (0 Points)
PR — Progress (0 Points)
P — Pass (0 Points)
NC — No Credit (0 Points)
NS - Non attendance (0 Points)
S - Satisfactory (0 Points)
U - Unsatisfactory (0 Points)
UW - Unauthorized Withdrawal (0 Points)
W - Withdrawal (0 Points)
WP — Withdrew Passing (0 Points)
WF — Withdrew Failing (0 Points)
WR — Withdrawal by the Registrar (0 points)

- Quality hours are multiplied by grade points to obtain quality points for each course. Quality hours are awarded for courses with grades of A, B, C, D, F, UW, and WF.
- The quality hours column is totaled.
- The quality points column is totaled.
- Total quality points are divided by the total quality hours. Grade point averages are rounded to the third decimal.


## Example

|  |  |  |  | Quality |  |
| :--- | :---: | :--- | :---: | :---: | :---: |
| Courses | Hours |  | Grades |  | Points |
| AD 075A | 0 | $\times$ | $\mathrm{P}(0)$ | $=$ | 0.0 |
| AD 090A | 0 | $\times$ | $\mathrm{NC}(0)$ | $=$ | 0.0 |
| BIOL 111 | 3 | $\times$ | $\mathrm{A}(4)$ | $=$ | 12.0 |
| ACS 101 | 3 | $\times$ | $\mathrm{F}(0)$ | $=$ | 0.0 |
| THEA 141 | 3 | $\times$ | $\mathrm{B}(3)$ | $=$ | 9.0 |
| Total | 9 |  |  | $=$ | 21.0 |

Twenty-one (21) quality points divided by 9 quality hours yields a 2.333 GPA (grade point average).

WR Withdrawal by Registrar

## Incomplete Grades

A grade of I (Incomplete) may be awarded when a student has completed most of the work required for a class but is prevented by a medical or similar emergency from completing a small portion of the course requirement. Unless instructors have specified a shorter period of time, incomplete grades not completed within one year will automatically be changed to an $F$ (graduation in the meantime notwithstanding). Instructors who specify a shorter period of time must communicate that stipulation in writing, with copies to the registrar, the department chair, and the student, at the time the incomplete is granted. Students who feel that mitigating circumstances justify an extension of the time limit may petition the faculty member who granted the incomplete. Faculty members who agree to grant extensions must inform the student, the department Chair, and the Registrar. Students completing work for a course in which they have a grade of Incomplete should not formally re-enroll in that course, but should meet with their instructor to determine requirements for completing the course.

## Pass/No Credit

Under the Pass/No credit option, students receive a Pass for grades A, B, C, and No Credit for grades of $D$ or $F$. At the time of requesting Pass/No Credit, students may stipulate that they would rather receive the grade of $D$ than No Credit.

Pass/No Credit is limited to courses outside general education requirements and major and minor requirements. Students may enroll in no more than 9 hours of undergraduate coursework under the pass/no credit option. These limitations do not apply to courses offered only for Pass/No Credit.

A decision to take a course on a Pass/No Credit basis must be declared no later than the eighth week of the fall or spring term and the sixth week of the summer session, and must be approved by the advisor. Undergraduate students registering for a course for credit may change to or from audit status during the first six weeks of fall or spring terms and through the first four weeks of the summer term. Thereafter, no change may be made. Some graduate schools and employers consider Pass equivalent to a C grade.

## Auditing Courses

You may register for Audit status for courses, but will receive neither a letter grade nor credit. Students auditing classes pay the same tuition
and fees as those registered for credit. If auditing students do not attend regularly, the instructor may determine that they should not receive "AU" grades for the courses.

Veterans attending under the GI Bill do not receive benefits for audited classes. Illinois State Assistance Commission Monetary Award and Pell (Basic) Grant recipients may not include audit classes as part of the total hours to qualify for payment.

## Repeated Courses

Students may repeat courses at SIUE under the following conditions and restrictions:

- When a course is repeated, only the grade earned in the final attempt will be used in computing the grade point average. All grades will appear on the transcript.
- Credits earned for any course will be applied only once toward degree requirements, no matter how often the course is repeated.
■ Students will not be permitted to repeat for credit a course which is a prerequisite for a course already successfully completed.
- Courses may not be repeated more than three times.

The University is not obligated to offer a course simply to provide students an opportunity to repeat a previously attempted course. Additionally, individual academic units and programs may set more stringent conditions and restrictions regarding repeated courses.

## Final Examinations

Students who have more than two final examinations scheduled for the same day, or who have two examinations scheduled for the same time, may request that one of the examinations be rescheduled. This can be accomplished by submitting a written request to the Assistant Vice Chancellor for Enrollment Management, in Rendleman Hall, Room 1207. The request must include the student's name, student identification number, and list of scheduled courses, and must be received by the Assistant Vice Chancellor for Enrollment Management at least two weeks before the first day of the examination period.

## Transcripts

Students may request official copies of their SIUE academic record, provided they have fulfilled all financial obligations to the University. Transcripts may be requested through

CougarNet, in person at the Service Center, by mail or fax. Unofficial copies are available on CougarNet. Transcripts are released only with the student's written consent. Telephone and electronic mail requests for transcripts cannot be honored, but faxed requests bearing your signature or requests made through CougarNet are acceptable. The fee is $\$ 5$ per transcript. Visit siue.edu/registrar for more information regarding transcript requests.

## Academic Probation and Suspension

If you have a cumulative grade point average of 2.00 or above, you are in good academic standing.
When your cumulative grade point average falls below 2.00, you will be placed on academic probation and will be subject to the restrictions placed on probationary students. Early in the term immediately following the assignment of probationary status, you will receive notification of probation and information regarding the suspension policy. If you are placed on academic probation, you are strongly urged to consult with an advisor in Academic Advising during the next term of enrollment. An advisor will help you identify solutions and develop a plan of action. If you are on academic probation, you will not be returned to good standing until your cumulative average is 2.00 or higher.
If you are on academic probation and fail to attain a 2.00 average for the next term of attendance, you will be placed on academic suspension. Once suspended, you will no longer hold major status in an academic program. If you are suspended and wish to submit an appeal for reinstatement, you may do so after sitting out for a minimum of one term. You may re-enroll only upon favorable action by the Suspension Appeals Committee, provided that you agree to the stipulations, if any, set by the committee and that you agree to work closely with an advisor in Academic Advising. You and your advisor in Academic Advising must reach agreement upon a plan of action. The Suspension Appeals Committee is administered by Academic Advising and, in cases in which a student had been accepted to a major, the committee may include a representative from the major department. You must file an appeal before any action will be taken by the Suspension Appeals Committee. The deadline for appeal is as follows: July 1 for consideration for fall term reinstatement; October 1 for consideration for spring term reinstatement; and March 1 for consideration for summer term registration. If
these dates fall on a weekend or holiday, the deadline will be the following business day. If you are suspended and permitted to re-enroll, you will automatically revert to undeclared status. However, upon your reinstatement to the University, the faculty of the major department may be asked to indicate whether you will be readmitted as a major. Upon reinstatement to the University, you may request a major when you meet the admission criteria for a given program.
Suspended students who have been permitted to re-enroll will return on probation. Ordinarily, if you are suspended more than once, you will not be reinstated at SIUE.

## Plan of Action

A plan of action consists of specific steps designed to promote your successful return to good standing. A plan of action may include:
■ reduction in number of credit hours attempted;

- change in academic major;
- enrollment in courses prescribed by the advisor, e.g., writing, reading, study skills;
■ enrollment in courses in which you previously received a failing grade;
- career counseling;
- more frequent meetings with advisor;

■ other advisor-recommended measures.

## Academic Recognition

Students who demonstrate outstanding scholarship are included on the Deans' List and recognized at Honors Convocation and Commencement.

To be included on the Deans' List, a student's term quality hours must be equal to or greater than 12 with a minimum grade point average of 3.5 for the term. Credit earned for out-of-class proficiency is not used in qualifying for the Deans' List (published at the end of each term).
Graduating seniors who have achieved outstanding scholarship are recognized at Commencement in the graduation program; their diplomas and insignia on their regalia designate summa cum laude (3.9 or higher), magna cum laude (3.75-3.89), or cum laude (3.50-3.74).

## Graduation

Undergraduate students may elect to complete their degree under the requirements that appear in the undergraduate catalog in force at the time
of their original matriculation as SIUE degreeseeking students or, subject to the approval of an academic advisor, may elect the requirements that appear in a succeeding catalog. This policy is subject to the following: No student may graduate under general education major or minor requirements published in a catalog more than seven years old without the written permission of the Dean of the college or school of the student's major or first major. Written permission shall be submitted to the Registrar with the application for graduation.
A student may satisfy general education requirements from one catalog and major or minor requirements from a second catalog, provided that neither catalog exceeds the seven-year limit stated above. Bachelor's degree candidates are expected to satisfy all general education requirements as well as all requirements for their academic major and any academic minor. Students intending to teach must meet the requirements for teacher certification. In addition, all candidates for a bachelor's degree must satisfy all other University requirements, including a senior assignment (see Assessment and the Senior Assignment), and maintain a minimum grade point average of 2.00 for work completed at SIUE. Academic program requirements may exceed University requirements.

Candidates for the degree must complete a minimum of 120 hours of credit in approved courses. Students transferring from an accredited two-year institution must earn at SIUE, or at any other accredited four-year institution, at least 60 of the semester hours required for the degree. All candidates for the degree must complete a minimum of 30 semester hours in residence at SIUE. Written requests for exceptions should be directed to the Graduation Appeals Committee through the Registrar. Students are responsible for meeting all degree requirements and financial obligations.

## Application for Graduation

Candidates for a baccalaureate degree should file an application for graduation at the beginning of their senior year. Applications may be completed in person at the Service Center or through CougarNet.
Once a completed application is received, graduation evaluations are performed. The Registrar determines completion of general education and University degree requirements, while the major and minor requirements are established and reviewed by the academic
department through which the degree is sought. Students also must satisfy all outstanding financial obligations to the University. Diplomas will not be issued for students with outstanding financial obligations.

Applications must be submitted no later than the first day of the term in which you plan to graduate. If all graduation deficiencies (incompletes, for example) are not completed within two weeks following the end of the intended term of graduation, you will be graduated at the end of the academic term in which requirements are completed. Commencement ceremonies are held at the end of each fall and spring term. Attendance at the exercises is voluntary; however, you will not be eligible to participate unless you have applied for graduation and your major program advisor has certified that you will complete degree requirements by the end of the term in which you have applied for graduation. Summer degree candidates may be eligible to participate in the preceding spring commencement ceremony if no more than 9 hours remain for degree completion at the conclusion of spring term. Summer degree candidates wishing to participate in the preceding spring commencement ceremony must have their application for graduation on file by the first day of the spring term. Participation in a commencement ceremony does not guarantee that degree requirements have been completed. Once you have participated in a commencement ceremony, you may not participate in another commencement ceremony for the same degree. A graduation fee of $\$ 60$ is payable at the time of application. The fee does not cover the cost of the cap and gown. These items are purchased through the University Bookstore in the Morris University Center. Questions regarding the cap and gown and invitations are referred to the bookstore.

## Second Baccalaureate Degree

Students seeking a second baccalaureate degree must complete a minimum of 30 semester hours beyond completion of the first degree and must satisfy the requirements of the major of the second degree. At least 15 of these hours must be in residence at SIUE.

## Graduation Appeals Committee

The SIUE Graduation Appeals Committee hears students' petitions to graduate even though they have not satisfied all University graduation requirements. The committee hears only those cases involving University requirements for a baccalaureate degree. Appeals relative to a major
or academic unit requirement are made through the appropriate administrator.

Requests for waiver of general education requirements are made to the General Education Committee of the Faculty Senate. Ordinarily, the Graduation Appeals Committee will give
consideration to an appeal only if there is tangible evidence that the matters at issue are of an unusual nature and that they have resulted from conditions beyond the control of the student. Appeals are initiated through the Office of the Registrar.

## Financial and Scholarship Information

## Financial Aid Services

Student Financial Aid offers the following services to help finance your education at SIUE:

■ general information by phone, e-mail, or in person;
■ one-on-one advising on a walk-in basis;

- review for special circumstances (e.g. death of wage earner, divorce, loss of job);
- websites at siue.edu/financialaid/ and siue. edu/studentemployment;
■ online Student Job Finder at siue.edu studentemployment;

■ online record of required documents and awards offered/paid at siue.edu/cougarnet; and

■ short-term loans for educational expenses.

## Planning for University Costs

When you are planning for University costs, it is important to research several factors:
■ available financial aid programs and eligibility requirements;

- steps to apply;

■ application deadlines;

- cost of tuition and fees and other expenses;
- date payments are due versus date financial aid will be disbursed; and
$\square$ student responsibilities related to receiving financial aid.


## Eligibility for Financial Assistance

To be eligible for federal and State of Illinois financial aid programs, an undergraduate must:
■ have a Social Security number;
■ be a U.S. citizen or eligible non-citizen;
■ be registered with Selective Service (if required);

- be working toward a degree offered by the University, ERTC, or teacher certification;
■ be enrolled for at least six hours each semester for which you wish financial aid (fall, spring, and summer);
- demonstrate financial need;

■ maintain satisfactory academic progress; and

- owe no refund on a federal grant and not be in default on a federal student loan.

Note: most international students do not meet citizenship requirements for financial aid programs administered by the Office of Student Financial Aid. International students should contact the International Student Services office, (618) 6503785 for information about financial assistance.

## Applying for Financial Assistance

If you are applying for need-based financial aid, you should submit the Free Application for Federal Student Aid (FAFSA) as soon after January 1 as you can each year to be considered for all programs, and list SIUE (code 001759) to receive the processed information. If you apply after February 1, you will find that funds in some programs are no longer available. In addition, students who apply after February 1 should be prepared to make their first fall tuition payment (usually due in the middle of August) in order to prevent being dropped from their classes. Due to the large number of financial aid applications, students who file after February 1 may not have their financial aid available to make that first fall payment. The application may be submitted online at fafsa.ed.gov.
All undergraduates applying with a FAFSA will automatically receive consideration for the Pell Grant, the primary undergraduate grant program. Illinois residents also will be considered for the state's Monetary Award Program (MAP).

## Definition of Independent Student

For federal and State of Illinois programs, you are considered independent if at least one of the following criteria describes you:
■ born before January 1, 1992;

- married as of the date of filing;

■ a veteran of the U.S. armed forces or currently serving on active duty;
$\square$ at the beginning of the 2015-2016 academic year, will be enrolled in a graduate or professional program;

- at any time since age 13 , were an orphan, in foster care, or were a ward of the court;
■ have children for whom you will provide more than half of their support;
■ have legal dependents other than a spouse or children for whom you will provide more than half of their support;
■ prior to turning 18 were an emancipated minor as determined by a court in your state of legal residence; 26 Southern Illinois University Edwardsville

■ prior to turning 18 had a legal guardian as determined by a court in your state of legal residence; or

■ at any time on or after July 1, 2014, were determined by your high school or school district homeless liaison, HUD, or the director of a homeless youth center to be an unaccompanied youth who was homeless.

## Determining the Financial Aid Package

The Office of Student Financial Aid assesses your financial need and determines the programs for which you are eligible. An offer of financial aid, or financial aid package, which includes awards from the programs for which you are eligible, is then available to you on CougarNet. Your financial need and awards are determined as described below:

A budget is assigned that reflects such factors as place of residence and your academic program. The budget includes tuition, fees, room and board, books and supplies, transportation, and living and personal expenses. The Expected Family Contribution (EFC) is a result of the federal processor calculating all the information contained in the FAFSA, including family income and assets, and is sent to the Office of Student Financial Aid by the federal FAFSA processor. The EFC is subtracted from the school year budget assigned to you by the school. From that amount is subtracted any private scholarships, veteran benefits, and/or third-party payments. The remaining amount is your financial need and is the maximum amount you can receive from all financial aid programs except the Federal Unsubsidized Loan and the PLUS Loan. Once financial need is determined, you are considered initially for grant eligibility, then for work-study, and finally for loans. Students who submit the FAFSA soon after January 1 will be considered for all programs. In the awarding of SIUE-administered need-based grants, on-time applicants are ranked in order of greatest need, and awards are made on the basis of the size of financial need. If funds are still available after these students are awarded assistance, additional students will be considered.

If you have significant changes in your family financial situation (death, disability, divorce, or other extreme circumstances) after filing your forms, you may request a review of your application called a Special Circumstance. Additional assistance may be awarded based on available funds.

## Paying the Semester Bill with Financial Aid

To use financial aid as credit for paying the semester bill, follow these basic steps:

- Apply for financial aid at least four months before the term for which you wish financial aid to cover the costs.
■ Register for at least half time each semester for which you wish financial aid-fall, spring, and summer ( 6 hours for undergraduates and 5 hours for graduate students).
- Access your award letter on CougarNet.
- Confirm acceptance of your awards on CougarNet as directed in the information provided online.
■ If appropriate, go online to complete entrance loan counseling and the Electronic Master Promissory Note (EMPN).

■ Have adequate financial aid to cover all new charges for the term and all balances due from a prior term.
■ Have no "holds" on your records from the Office of Student Financial Aid, Records, Office of the Bursar, or the Office of the Vice Chancellor for Student Affairs (for example, satisfactory progress termination, bad check, disciplinary hold). In most cases, students who apply for financial aid soon after January 1 , accept their financial aid awards by midJune, and register for classes by the end of June will receive credit for their grants, scholarships, waivers, and loans on the first fall semester bill. Students with no past-due charges are considered financially cleared for the next term in one of two ways: 1 . Sufficient financial aid (grants, scholarships, waivers, and/or loans), covering 100 percent of the charges for the term, is applied to the student's Bursar account by the first payment deadline; or 2. Financial aid is applied to the student's Bursar account and the student pays the first installment payment appearing on the bill by the first payment deadline.
Being financially cleared allows a student to have his/her ID validated and use SIUE services such as the library and fitness center, and protects his/her class schedule from cancellation due to non-payment.

## Withdrawal with Financial Assistance

Students who are registered and need to fully withdraw from classes for the term must initiate
the withdrawal process in the Service Center. Withdrawal during the 100 percent refund period cancels your obligation to pay tuition and fees for the term. However, students who receive Title IV financial aid (Pell, TEACH, SEOG, direct loans, and/or Perkins loans) and withdraw completely are subject to the federal Return of Title IV Funds policy. The policy states that students "earn" their financial aid on the basis of the portion of the semester in which the student is enrolled; SIUE also "earns" a portion of the financial aid. Aid that is determined to be "unearned" by the student and/or the university must be returned to the appropriate Title IV program. Students who are subject to Return of Title IV Funds will be notified by the Office of Student Financial Aid of any award changes and instructed to view their balance owed to SIUE on CougarNet.

## Grants

Grants normally are awarded to students with significant financial need in combination with work-study and loans as part of the financial aid package. The federal Pell and Supplemental Educational Opportunity Grants, as well as the Illinois MAP grant and the Student-to-Student Grant, are awarded based on information provided on the FAFSA. To receive federal, Illinois, or institutional grant assistance, a student must not be in default on any student loan and not owe a refund on any state or federal grant.

## Federal Pell Grant

This federally sponsored program helps eligible undergraduate students to meet educational expenses when parental or student resources are insufficient. The Pell Grant program is used as the base in determining the total financial assistance "package" of an undergraduate student.

## Federal Supplemental Educational Opportunity Grant

The Federal Supplemental Educational Opportunity Grant program helps students with extreme financial need (i.e., eligible for Pell Grant) who would be unable to enter or remain in school without this grant. At SIUE, annual awards are for a maximum $\$ 1,400$ for in-state students and $\$ 2,200$ for out-of-state students.

## Illinois Bonus Incentive Grant

Holders of Illinois College Savings Bonds for at least 12 months may be eligible for a non-needbased grant if the bond proceeds are used to pay for educational expenses. Grant amounts range from $\$ 40$ to $\$ 440$ per $\$ 5,000$ of compound
accreted value at maturity, depending on the maturity of the bond. The program is dependent on funding from the Illinois General Assembly. A bondholder must apply between August 1 and May 30 of the academic year in which the bond was redeemed or in the academic year immediately following the redemption. Additional information is available from the Illinois Student Assistance Commission at isac.org.

## Illinois Monetary Award Program

The Monetary Award Program (MAP) provides for full or partial payment of in-state tuition and fees, based on significant financial need, to Illinois resident undergraduate students enrolled at least half time during the fall and spring semesters. To be considered, students must submit the FAFSA before the MAP deadline and list SIUE as their first-choice institution. Additional information is available from the Illinois Student Assistance Commission at isac. org and the front page of the FAFSA On The Web Worksheet.

## Illinois National Guard Program

Members of the Illinois National Guard are eligible to receive a grant for payment of tuition, the activity fee, and the graduation fee for undergraduate or graduate students after one full year of service in the Illinois National Guard as an enlisted person or company grade officer up to the rank of captain. Recipients must maintain good academic standing during the period of the award. For full-year award consideration, candidates should apply to the Illinois Student Assistance Commission (ISAC) by October 1 of the academic year for which assistance is being requested. The application is available online as an interactive application on the ISAC website at isac. org along with complete details of the program. Awards are available for a maximum of 8 full-time semesters; no minimum enrollment is required.

## Illinois Veterans Grant

Veterans who qualify for the Illinois Veteran Grant (IVG), which covers tuition, most mandatory fees, and the graduation fee, may use it concurrently with GI Bill benefits. This grant is available to graduate or undergraduate students who have at least one full year of full-time active duty in the U.S. armed forces, are honorably discharged, and meet the IVG residency requirements. Any veteran who resided in Illinois within 28 Southern Illinois University Edwardsville six months before entering the service and returned to Illinois within six months of discharge from the service may be eligible.

Applications and additional information are available at isac.org.

## Other Illinois Grants

Grants also are available to spouses and children of Illinois police or fire officers killed or permanently disabled in the line of duty, and to spouses and children of State of Illinois Department of Corrections officers killed or permanently disabled in the line of duty. Recipients must be enrolled in undergraduate courses at least half time, or 6 hours, each semester. The awards cover tuition and some fees, and are available for up to 8 semesters. Applications and additional information are available at isac.org.

## Student-To-Student Grant

The Student-to-Student (STS) Grant is funded through a voluntary student fee assessed each term and through matching state dollars. Grants ranging from $\$ 600$ to $\$ 1,000$ per year are made to students based on financial need. Students may request a refund of their STS assessment by contacting the Office of the Bursar during the first two weeks of the term.

## Loans

Loans are available to SIUE students through federal, state, and institutional programs to assist with educational costs. Some loans require financial need, but others are available to students with no financial need.

## Federal Direct Stafford Loans (Subsidized and Unsubsidized)

## Federal Direct Subsidized Stafford Loans

Subsidized federal loans are low-interest loans made to undergraduate students attending at least half time (minimum 6 hours). Students qualify for a subsidized loan based on financial need. Repayment begins six months after a student graduates, leaves school, or drops below half time. Interest on subsidized loans does not begin accruing until graduation, termination of studies, or a drop below half-time enrollment. Undergraduates may borrow up to $\$ 3,500 /$ year as a freshman, $\$ 4,500 /$ year as a sophomore, and $\$ 5,500 /$ year as a junior or senior. For periods of undergraduate study of less than a year, the amount a student can borrow may be less than noted above. Students enrolled for only one semester in an academic year should see a financial aid advisor to determine how much they can borrow. Most students are limited to borrowing their annual maximum across three terms (fall, spring, summer). The fixed interest
rate is determined every July 1.

## Federal Direct Unsubsidized Stafford Loans

The unsubsidized federal loan program is similar to the subsidized loan program (described above); however, students are not required to have financial need for these loans. Unsubsidized loans are appropriate for students with no financial need or very moderate need. A $\$ 2,000$ unsubsidized loan will be offered to all students. Independent undergraduates may borrow an additional $\$ 4,000-\$ 5,000 /$ year of unsubsidized loan. For students whose financial need (or eligibility for a subsidized loan) is less than the maximum for their class standing, it is possible to receive a federal loan partly based on financial need (subsidized) and partly not based on financial need (unsubsidized). The difference between these two loans is the repayment terms. Repayment for unsubsidized loans can be deferred until after graduation, but the interest begins to accrue while the borrower is in school. The fixed interest rate on an unsubsidized loan is determined every July 1.

## Federal PLUS Loan

Federal PLUS loans enable parents with good credit histories to borrow for each son or daughter who is enrolled at least half time and is a dependent student. An eligible parent may borrow the cost of education (as defined by SIUE) minus any estimated financial aid the son or daughter may be receiving. The fixed interest rate is determined every July 1. Parents may defer repayment of the PLUS loan until the student begins repayment; however, interest begins to accrue upon disbursement of the loan. The student must have a FAFSA on file for the parent to be eligible to apply for the PLUS loan.

## Alternative Loans

Alternative loans, also called private loans, are offered by lending institutions as an additional source of funds for higher education. We encourage you to pursue Federal Direct Stafford Loans before seeking Alternative Loans. These loans are not part of the federal government loan programs, but they are good options after other financial aid sources have been exhausted. Interest rates are variable and vary from lender to lender.

## Federal Perkins Loan

A Federal Perkins Loan is awarded based on financial need and is normally repaid after graduation at a low interest rate ( 5 percent).

At SIUE, funds are limited and first preference is given to students in high-cost programs (generally dental medicine and nursing anesthesia programs) and needy students who are unable to obtain adequate direct subsidized or unsubsidized loan funds to cover their expenses. Repayment begins nine months after the date the borrower ceases to attend school at least half time. Repayment may be granted for up to 10 years. The requirement to repay the loan or a portion of it may be cancelled if the recipient enlists in certain specialties of the U.S. Army, Army Reserves, Army National Guard, or the Air National Guard, or is employed as a teacher in selected school districts.
Students eligible for the Federal Perkins Loan may borrow up to $\$ 3,000$ a year for each year of undergraduate study; the total loan debt for an undergraduate cannot exceed $\$ 15,000$. Graduate students may borrow up to $\$ 6,000$ each year of graduate or professional study, but cannot exceed $\$ 30,000$ of loan debt for undergraduate and graduate study combined.

## VA Educational Benefits

SIUE is approved by the State Approving Agency for Veterans Education. Veterans who qualify for the Illinois Veterans Grant (through ISAC) may use this award concurrently with their VA benefits. Veterans do not normally receive VA educational benefits for the grades of W, WP, WF, No Show (NS), No Credit (NC), Audit (AU), and Progress (PR). However, under certain circumstances, the VA may authorize payment of VA benefits for these grades. Non-degreeseeking students are not eligible for VA benefits. Veterans must meet specific academic progress requirements to remain eligible for VA benefits. Veterans applying for VA benefits may obtain the necessary application forms from the Veterans Affairs Regional Office or from SIUE's Veterans Certification Section, Records,Room 1207, Rendleman Hall. These forms, along with a copy of the Veteran's DD-214 (Report of Separation from the Armed Forces) and certified proof of any dependents, such as marriage certificate or birth certificates of children, should be provided to Veterans Certification. This office in turn will complete the enrollment certification and mail it with the application to the Veterans Affairs Regional Office. Veterans who experience any changes in dependent status after receiving benefits must immediately notify the Veterans Administration Regional Office.
VA benefits are determined by the veteran's length of active duty in service, number of
dependents, enrollment status, "kickers" awarded by the branch of military service in which the veteran served, and other factors. Benefits for non-traditional courses may vary. Students attending courses that meet in nontraditional formats should contact the Veterans Certification Section, Records, Room 1207, Rendleman Hall. After registering each term, students receiving VA benefits should report their registration to the Veterans Certification Section of the Records Office by completing a Veteran Benefits Information form. Any change in enrollment after registration should be reported to Veterans Certification as soon as possible.
A student who withdraws or leaves SIUE should refer to the registration section of this catalog titled "Withdrawing from the University."

## Employment

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

## Student Employment

SIUE offers a broad range of part-time student work opportunities in almost every phase of university operation or service. Many positions are in the clerical, maintenance, or food service areas, and many challenging positions help develop the administrative, research, or technical skills of students. Students usually work $15-$ 20 hours per week as class schedules permit. Generally, students begin working at the state minimum wage and receive increases as total accumulated hours increase. Available jobs are listed online in the Student Job Finder at siue. edu/studentemployment. Students apply for jobs via the Internet and must be financially cleared (minimum payment made) before they can begin working.

## Federal Work-Study Program

The Federal Work-Study Program is designed to help students with financial need to secure employment and help defray costs. Students who qualify are awarded federal funds that pay part of their wages; the unit in which they work pays the remainder. Federal Work-Study eligibility is awarded as part of a package of scholarships, grants, and/or loans. Students must complete a FAFSA and indicate on their FAFSA they are interested in Federal Work-Study. Students must also be financially cleared (minimum payment made) before they can begin working.

## Job Locator and Development Program

The Job Locator and Development Program helps students seeking part-time jobs with employers in the communities surrounding SIUE. Designed to place SIUE students in part-time jobs related to their career and academic interests, the Job Locator Program provides financial assistance and job experience to students. Enrolled students may participate in the Job Locator Program. Employment opportunities are found online in the Student Job Finder at siue. edu/studentemployment. 30 Southern Illinois University Edwardsville

## University Scholarships

University funds provide scholarships that are awarded to students with good academic records and, sometimes, financial need. Visit our website at siue.edu/financialaid to print scholarship applications, or contact Student Financial Aid for details. Scholarships, like grants, need not be repaid.

## Meridian Scholars Program

- New freshman undergraduates only
- Admission to the University by December 1 required
■ Deadline for application: December 1
■ Value: in-state tuition, fees, on-campus room and board for eight semesters
■ Selection based on exceptional academic record, leadership qualities, and interview; preference for AP and honors course credit in high school

■ Minimum of 27 ACT (1220 SAT) and upper 10 percent class rank

■ Means for 2014-15 freshmen: 3.98 GPA, 30.78 ACT, upper 6 percent rank

- Admission to Honors Scholars Program, Undergraduate Research Academy projects and other academic opportunities


## Cougar Pride Scholarships

- Admission to the University by December 1
- Through a competitive process, up to $\$ 4,000$ awarded annually as funding is available

■ Freshmen must have a minimum 23 ACT (1070 SAT)
■ Transfer students must have a minimum 3.0 GPA with minimum 24 semester hours in course work that is transferable to SIUE or an associate degree

- Award is good for up to eight semesters; students must complete 12 hours per semester and maintain a 2.9 CGPA


## Johnetta Haley Scholarships

■ Admission to the University by December 1

- Through a competitive process, $\$ 3,000$ awarded annually as funding is available
■ Freshmen must have a minimum 23 ACT (1070 SAT)
- Transfer students must have a minimum 3.0 GPA with minimum 24 semester hours in course work that is transferable to SIUE or an associate degree

■ For students from underrepresented backgrounds planning on careers in nursing, engineering, sciences, or teacher education; all persons are encouraged to apply

- Award is good for up to eight semesters; students must complete 12 credit hours per semester, 12 hours of volunteer service each semester, and maintain a 2.9 CGPA


## The "e" Guarantee

- Resident of Illinois

■ Admission to the University by December 1

- FAFSA on file, preferably by February 1
- Award amounts vary depending on available funding
- Freshmen must have a minimum 19 ACT
- EFC from FAFSA must be $\$ 0$ and family income levels at or below federal poverty guidelines

■ Student's financial eligibility for the program will be reviewed annually. Award is good for up to eight semesters; students must complete 12 hours per semester and maintain a 2.0 CGPA

## GEO

This is not a scholarship, but a tuition rate for out-of-state students only. Students with this award will pay 1.2 times the in-state tuition rate instead of the normal 2.5 times for the out-ofstate tuition rate. This award does not apply to fees, room, board, or any other charges. Students for this award will be selected by Athletics, Fine Arts, or Admissions offices. The GEO is available for only one academic year.
■ Admission to the University by December 1
■ First-time, full-time freshman or transfer

■ Minimum ACT of 23 (1070 SAT) for freshmen or 3.0 CGPA in at least 24 transferable hours for transfers

- Complete financial aid file
- Live on campus at SIUE for entire first year
- Awarded as funding is available


## High Achievers Award

This is not a scholarship, but a tuition rate for out-of-state students. Students with this award will pay the in-state tuition rate instead of the normal 2.5 times for the out-of-state tuition rate. This award does not apply to fees, room, board, or any other charges. The High Achievers Award is available for only one academic year.

- First-time, full-time freshman or transfer
- Minimum ACT of 27 (1220 SAT) for freshmen or 3.5 CGPA in at least 24 transferable hours for transfers
- Complete financial aid file
- Awarded as funding is available 2014-2015 Undergraduate Catalog 31


## Legacy

This is not a scholarship, but a tuition rate for out-of-state students with alumni connections to SIUE (verified parent, grandparent, sibling, stepparent, or guardian). Students with this award will pay the in-state tuition rate instead of the normal 2.5 times for the out-of-state tuition rate. This award does not apply to fees, room, board, or any other charges. In order to receive the Legacy Tuition Rate students must indicate their alumni connection to the university in question number 10 on the undergraduate application.

- First-time, full-time freshman or transfer

■ Minimum ACT of 27 (1220 SAT) for freshmen or 3.0 CGPA in at least 24 transferable hours for transfers

- Awarded as funding is available


## SIUE University/Foundation Scholarships

Undergraduate students may compete for scholarships provided by the University or donor gifts to the SIUE Foundation by filing a University Foundation Scholarship Application by March 1 prior to the year in which the award is given. The application is available online at siue. edu/ financialaid, may be requested by email at finaid@siue.edu, or can be obtained from the Office of Student Financial Aid.

Applicants will be considered for the scholarships described below:

James R. Anderson Scholarship - A oneyear, \$2,000 scholarship for University housing charges to a current student with a 3.00 cumulative grade point average and academically motivated; first preference will be given to those from the Chicago area. Student must have demonstrated civic leadership in community service or housing activities.
Bessie May Briggs Mason Scholarship - Fouryear scholarship awarded to worthy Alton High School graduate with financial need, academic merit, and a desire to obtain a degree in the field of primary or secondary education or a teaching certificate.

Martha Huckelberry Scholarship - Awarded to a single parent with a minimum 2.50 CGPA and who has financial need.

Teddi and Merle Inman Scholarship - Awarded to Calhoun County, IL, residents entering SIUE as freshmen.

## Leo and Hilda Kolb Memorial Scholarship

- Awarded to worthy students with financial need who are residents of Madison County, IL, with preference given to applicants from Marine Township.
Arthur and Dorothy Metz Scholarship Awarded to Dupo High School graduates entering SIUE with a minimum 2.75 CGPA and above the 85th percentile of graduating class; graduates of Valmeyer High School may be considered.
James M. and Aune P. Nelson Minority Student Grant - Awarded to minority graduates of Alton High School entering SIUE who have at least a 2.0 CGPA on a 4.0 scale in high school or a continuing student with at least a 2.50 CGPA at SIUE.


## Joseph (Cobby) Rodriguez Memorial

Scholarship - Awarded to a needy student who is a police officer or the child or spouse of a police officer residing in St. Clair County, Ill.

Maurice and Catherine Sessel Alton Student
Grant - Awarded to graduates of Alton High School entering SIUE who have at least a 2.50 CGPA on a 4.0 scale in high school or a continuing SIUE student who has at least a 2.50 CGPA.

Louise Wilkins Saunders - Awarded to support an SIUE student who is returning to college to pursue a bachelor's or master's degree. Preference will be given to non-traditional students with financial need.

Thelma Thompson Memorial Scholarship/<br>Grant - Awarded to a single parent with financial need with a minimum 2.50 CGPA.

## Zimmer Academic Achievement Award -

 Preference will be given firstly to APO members and then other sorority or fraternity members. To be considered, you must have financial need and a minimum 2.50 CGPA.
## Athletics Scholarships

SIUE offers scholarships to talented athletes in accord with National Collegiate Athletic Association rules and procedures. For information, contact the Director of Intercollegiate Athletics, Box 1129, SIUE, Edwardsville, IL 62026-1129.

## ROTC Scholarships

Both the Air Force and Army ROTC Programs at SIUE offer scholarships to qualified students. The scholarships pay up to full tuition/fees and books, and some provide monthly subsistence allowances. Students should contact the appropriate unit for complete information: Air Force ROTC Program, Alumni Hall, Room 3340, SIUE, Edwardsville, IL 62026, (618) 650-3179; Army ROTC Program, Founders Hall, Room 3106, SIUE, Edwardsville, IL 62026, (618) 650-2500.

## Illinois Scholarships

Illinois resident students may be eligible for scholarships administered by the Illinois Student Assistance Commission (ISAC). Applications and information about these programs are available from ISAC by calling 1-800-899-ISAC or at isac. org. The number of scholarships, and individual dollar amounts awarded, are subject to sufficient annual appropriations by the Illinois General Assembly and the governor.

## Merit Recognition Scholarship (MRS) Program

Students who ranked in the top five percent of their high school class at the end of their third semester before graduation, or scored among the top five percent of scores in the ACT, SAT I or Prairie State Achievement Exam, may be eligible to receive $\$ 1,000$ from the Merit Recognition Scholarship (MRS) Program. This one-time, nonrenewable scholarship can be used to help pay for tuition, fees, or other educational expenses at any approved Illinois institution or one of the nation's four approved Military Science Academies. There is no student application to complete for the MRS Program; high school counselors submit information to ISAC for the
selection process. (Note: This scholarship has not been funded since 2004-2005).

## Minority Teachers of Illinois Scholarship

 Students planning to become preschool, elementary, or secondary school teachers of African-American/Black, Hispanic American, Asian American, or Native American origin may qualify for up to $\$ 5,000$ per year as part of the Minority Teachers of Illinois (MTI) Scholarship Program to pay for tuition, fees, and room and board, or commuter allowances, if applicable. As part of the application process, the applicant must agree to the terms and conditions in the application's Teaching Agreement/ Promissory Note. Recipients of this scholarship must teach in Illinois. If this teaching obligation is not fulfilled, the scholarship converts to a loan, and the recipient must repay the entire amount plus interest. The Teacher Education Scholarship Programs application, which must be submitted each academic year in order to apply for the Minority Teachers of Illinois (MTI) Scholarship program, is available online as an interactive application at isac.org. For priority consideration, a complete application must be received at ISAC on or before March 1 preceding the academic year for which the applicant is applying. For persons who are unable to apply electronically, and who receive ISAC approval for an alternate means of applying, the application received date will be based on the U.S. Postal Service postmark date.
## Robert C. Byrd Honors Scholarship

Students who received exceptional grades in high school and show promise of continuing academic excellence may be eligible for the Robert C. Byrd Honors Scholarship Program. The award is up to $\$ 1,500$ per year, for a maximum of four years. There is no student application to complete for the Byrd Honors Scholarship Program; high school counselors submit information to ISAC for the selection process. This scholarship is not limited to tuition and fees; however, awarding of Robert C. Byrd Honors Scholarship is subject to federal funding and no funding was appropriated for the 2015-16 Byrd Program.

## Illinois Special Education Teacher Waiver Program

Teachers or academically talented students pursuing a career in special education as public, private, or parochial preschool, elementary, or secondary school teachers in Illinois may be eligible for the Illinois Special Education Teacher Tuition Waiver Program. This program will exempt such persons from paying tuition
and mandatory fees at an eligible institution for up to four calendar years. Recipients of this scholarship must teach in Illinois. If this teaching commitment is not fulfilled, the scholarship converts to a loan, and the recipient must repay the entire amount plus interest. To apply, an Illinois Special Education Teacher Tuition Waiver Application must be obtained by requesting it from ISAC. See isac.org for contact information. Submit a complete application to ISAC's Deerfield office postmarked on or before March 1 immediately preceding the initial academic year for which the tuition waiver is requested. Once eligible for the program, applicants need not reapply for consideration for additional years. Those who are eligible for the Illinois Special Education Teacher Tuition Waiver will receive a notice of eligibility by July 1 .

## Golden Apple Scholars of Illinois (Illinois Scholars Program)

Created in 1988 by the award-winning teachers of the Golden Apple Foundation, the Golden Apple Scholars of Illinois program recruits and prepares bright and talented high school graduates who represent a rich ethnic diversity, for successful teaching careers in high-need schools throughout Illinois, and provides scholarships to students pursuing teaching degrees. The Golden Apple Foundation is a not-for-profit organization based in Chicago. The foundation promotes excellence in Pre-K through 12 education through the work of excellent teachers. Golden Apple Scholars receive mentoring support from outstanding, award-winning teachers who are part of the Golden Apple network. In exchange for successful completion of undergraduate college and a commitment to teach for five years in an Illinois school of need, scholars receive financial assistance for four years to attend one of the 54 public and private universities across the state and to take part in summer programs that include teaching internships and enhanced teacher preparation. To apply, students must be nominated to be a Golden Apple Scholar of Illinois by a teacher, counselor, principal, or other non-family adult. Students also may nominate themselves. For more information about how to apply, go to isac.org.

## MIA/POW Scholarship

Dependents of a person who was an Illinois resident at the time he or she entered active duty and has been declared to be a prisoner of war, missing in action, dead as a result of a serviceconnected disability, or disabled with a 100 percent disability as the result of a service-connected cause
as recognized by the U.S. Department of Veterans Affairs or the U.S. Department of Defense, may be eligible to receive the MIA/POW Scholarship. This scholarship may be used at public colleges in Illinois and is administered by the Illinois Department of Veterans Affairs.

## Other Scholarships

In addition to considering the scholarships listed, students may wish to contact their major departments or school/ college at SIUE to determine whether funds are available. Also, students should check the Internet for scholarship information, consult the student newspaper for notices about scholarships provided by campus organizations, check with their employers or their parents' employers for scholarship opportunities, or go to their local libraries for information. The Office of Student Financial Aid's website, siue.edu/financialaid, contains several links for free, reputable scholarship search services, as does isac. org. Beware of scholarship scams, and never pay for a scholarship search.

## Satisfactory Academic Progress Policy for Financial Aid Recipients

The following is an excerpt from the Satisfactory Academic Progress policy. Eligibility to receive financial aid from federal Title IV aid programs requires that students maintain satisfactory academic progress. In response to requirements within the law for these programs, the University has developed this policy in addition to existing academic policies, and designated that it also be extended to selected state and institutional programs of assistance.

## Purpose

The intent of this policy is to:
■ ensure that students using financial aid programs are demonstrating responsible use of public funds in pursuit of their educational goals;
■ set standards for monitoring all financial aid recipients' course completion rates each term (or each year for dental medicine students), warning individual students when progress is so slow that financial aid eligibility may run out before completion of the degree program; and

■ give students whose progress does not meet the standards of this policy at least one term of financial aid on a warning basis in which to improve their academic progress.

## Definitions

Attempted course - a course that remains on the student's record after the first two weeks of the fall/spring term. Summer terms have different dates depending on the length of the course.
Completed course/earned credit - a course in which a grade of $\mathrm{A}, \mathrm{B}, \mathrm{C}, \mathrm{D}$, or P was received. Withdrawals (WP, WE, WF, W and UW), progress grades (PR), no show (NS), no credits, blank grades, incomplete grades (I), audits (AU), and failures ( $\mathrm{E}, \mathrm{F}$ ) are not considered "earned credit" for meeting progress requirements.

Developmental course - a course with the prefix of "AD" or numbered "OXX" (not 100-level skills courses).

Financial aid - Including but not limited to the federal Title IV programs, plus the state and institutional programs listed below.

- Federal Pell Grant
- Federal Perkins Loan

■ Federal Supplemental Educational Opportunity Grant

- Federal Work Study
- Federal TEACH Grant

■ William D. Ford Federal Direct Loan (subsidized and unsubsidized)

- William D. Ford Federal Direct Parent PLUS Loan
■ William D. Ford Federal Direct Graduate PLUS Loan
- Illinois Monetary Award Program (MAP)
- Illinois Merit Recognition Scholarship
- Illinois Paul Douglas Teacher/MTI/ITEACH Scholarship
- SIUE Foundation Grant

■ SIUE Foundation Loan

- SIUE Regular Student Employment
- SIUE Scholarships
- SIUE Student-to-Student Grant
- SIUE Tuition Waiver (except graduate assistantship waivers and selected employee waivers)

Financial aid probation - a status assigned to a student who fails to meet satisfactory academic progress and who has appealed that determination and has eligibility for aid restored.

Financial aid warning - A term in which a student who has been identified as not meeting one or more standards in this policy can continue to receive financial aid. If, at the end of the warning term, a student has achieved a cumulative completion rate greater than or equal to 67 percent and their cumulative GPA is greater than or equal to 2.00 , they will be considered to be making satisfactory academic progress for financial aid. If, at the end of the warning term, a student has not achieved a cumulative completion rate greater than or equal to 67 percent and their cumulative GPA is not greater than or equal to 2.00 , they will be placed on Financial Aid Termination.
Financial aid termination - The point at which a student is no longer eligible to receive financial aid as defined in this policy. Normally, this is following an unsuccessful term of warning.
Incomplete - A grade of "I" received for an attempted course; no credit until the course is completed.

Maximum time frame - Time limit set for receipt of financial aid that is specific to a student's program of study. For undergraduate programs, federal law defines this limit as 150 percent of published program length.
Satisfactory Academic Progress/Satisfactory Progress - Completion of courses at a rate and achieving a cumulative GPA that meets the standards defined in this policy.
Transfer credit - Course accepted for credit at SIUE from another institution.

## Authority

The Higher Education Act of 1965 as amended and final regulations set by the United States Department of Education (34CFR668.16) require that institutions of higher education establish reasonable standards of satisfactory academic progress as a condition of continuing eligibility for federal aid programs. Nothing in this policy shall be construed as an exemption from the requirements of any other federal assistance the student receives, nor does this policy limit the authority of the Director of Financial Aid when taking responsible action to eliminate fraud or abuse in these programs.

## Satisfactory Progress Standards

To remain eligible for financial assistance, students must:
■ complete courses at an overall rate that will ensure graduation within the maximum time frame;

■ complete their developmental and incomplete courses in a timely manner;
■ graduate prior to the maximum timeframe specific to their degree programs; and
■ maintain academic standing, usually a specific term and cumulative grade point average, consistent with SIUE academic policy.
Maximum time frame - To retain financial aid eligibility, a student must complete his or her degree program within 150 percent of the published program length, defined in cumulative attempted hours for undergraduate/graduate students and years for dental medicine students. Attempted hours for this purpose include regular and developmental course hours, as well as accepted transfer credit. Once a student reaches the maximum time frame, he or she is ineligible for financial aid unless additional time to complete the degree is approved through appeal. Maximum time to complete degree is 150 percent of the published program length.

Overall completion rate - Completion rates reflect the rate at which students earn credit for courses attempted (for example, a student earning credit for 9 of 12 attempted hours would have a 75 percent completion rate). A student must complete at least 67 percent of his/her attempted hours. A student's attempted hours are determined by his/her official enrollment status as of the end of the 100 percent refund period for a given term or class.

## Developmental course completion -

Students taking developmental courses are eligible to receive financial aid for their first 30 hours of developmental classes attempted.
Developmental courses must be completed at the same rate as other courses ( 67 percent).
Grade point average/suspension - Students must meet the University's policy on academic standing, grades, and grade point average as defined in the appropriate catalog. A student on academic suspension has not maintained acceptable academic progress. The Office of Student Financial Aid initially will block that student from receiving financial aid in any subsequent term. If readmitted or reinstated to the University, the student must appeal to the Office of Student Financial Aid to receive financial aid during a term of financial aid probation.

## Notification of Financial Aid Warning or Termination

The Office of Student Financial Aid will post on CougarNet the status of any student who is placed on financial aid warning or financial aid termination. It is the responsibility of the student to monitor his or her current standing on CougarNet.

## Reinstatement

An undergraduate student who exceeds his/ her program's maximum time frame but has not received a degree - The student must appeal on the appropriate form and provide a graduation plan signed by his or her academic advisor. If the plan is considered reasonable, the student will receive financial aid on probation for one or more specified terms until the degree is completed.

## Student on financial aid termination -

Students who have been terminated from financial aid may seek reinstatement by achieving, without the benefit of the aid from which they have been terminated, both the cumulative 67 percent completion rate and the cumulative 2.00 GPA required. Reinstatement may be requested for the term after this occurs.
Student with grade changes - The student can regain financial aid eligibility by notifying the Office of Student Financial Aid of the grade change, including grades posted for incomplete courses.

Student previously suspended - A student loses financial aid eligibility at the time of suspension from SIUE and must appeal on the appropriate form to receive approval for a term of financial aid probation if reinstated or readmitted.

## Appeals

A student who does not meet the undergraduate, graduate, or ERTC overall completion rates specified in this policy will be put on warning for one term following identification of unsatisfactory progress. A dental medicine student who does not complete the degree program within four years will be reviewed by Student Financial Aid and the school's Student Progress Committee to determine whether the student can continue on financial aid probation for the fifth or sixth year. For all other purposes, a student who desires to appeal termination of his or her financial aid eligibility must appeal in writing, usually on a form designated for that purpose, to the Office of Student Financial Aid.

The Director of Student Financial Aid may take action on the appeal or may forward it to the Financial Aid Appeals Committee for review. The committee's decisions may be appealed to the director, and the director's decisions may be appealed to the assistant vice chancellor for Enrollment Management. The committee comprises at least three faculty and/or staff members familiar with SIUE academic policy. The committee considers in a timely manner appeals that are referred to it. The committee reviews only the written record and does not conduct a hearing unless unusual circumstances warrant it. A student must submit third-party written documentation to support his or her appeal.

## Additional Financial Information

 Installment Payment PlanStudents may pay in full their tuition, fees, housing, and meal plan charges by the first payment due date for the semester or may choose to follow the installment payment plan. The University automatically enrolls students in the installment payment plan if tuition, fees, housing and meal plan charges are not paid in full by the first day of class for the semester. There is a $\$ 20$ charge per semester for use of the Installment Payment Plan. For details about the plan, visit siue.edu/bursar/installments.

## Gainful Employment Disclosure

To access the Gainful Employment Disclosure Statement for the gainful employment program at SIUE, go to siue.edu/financialaid/ certificate-programs2014.shtml and click on the disclosure links.

## Advanced Studies

## University Honors Program

The University Honors Program is designed for outstanding students to plan individualized academic programs. The program serves students from all disciplines. Students admitted as honors scholars plan their academic programs with the help of faculty mentors and advisors in their major areas of interest. Some graduation requirements are modified to afford scholars opportunities to explore a number of areas of interest or to study more intensively in an area of concentration. Freshmen with a high school class rank in the top 15 percent, an ACT score of 25 or higher, and a GPA of at least 3.5 are eligible for admission into the Honors Scholars Program. Sophomores or transfer students who wish to be considered for admission to the Honors Scholars Program should contact the director of the program.
In addition to a completed application, letters of recommendation or evaluation forms are required from at least three instructors familiar with the student's high school or university work. Selection of honors scholars is based on the candidates' previous academic work, community service and letters of recommendation/evaluations from instructors. An application and additional information can be found at siue.edu/admissions/honors.shtml.

## General Education Requirements for Honors Scholars

To fulfill the General Education requirement, the Honors Scholars student will take at least 30 semester hours. Of these, a minimum of 8 courses to total at least 24 credit hours must be in the breadth areas. At least one course with at least three credit hours must be taken from each of the following breadth areas: fine and performing arts, humanities, information and communication in society, life sciences, physical sciences, and social sciences. No more than 9 hours may be taken at the 111 level. In addition, Honors Scholars students must complete a course or an approved project or activity for each of the following experiences: (i) global cultures, (ii) United States cultures, (iii) health, and (iv) laboratory. These experience requirements can be fulfilled by appropriate breadth area courses. The experience requirements cannot be satisfied by Foundations courses.

To complete their 30 hours, Honors Scholars students will be required to take three semester hours of an Honors Scholars Seminar (HONS 120), which includes work on composition and oral communication and is required of all
entering Honors Scholars freshmen. Honors Scholars students also will be required to take three semester hours of an interdisciplinary honors seminar (HONS 320). Questions as to whether certain courses count toward the fulfillment of the general education requirements for honors scholars will be resolved by the director of the University Honors Program in consultation with the student's advisor.
Transfer students accepted as honors scholars must meet the requirements outlined above through courses accepted for transfer or through University courses approved by the director of the University Honors Program. This stipulation also applies to SIUE students accepted as honors scholars after their first semester at SIUE.

## Student Colloquium

Students wishing to study subjects not in the regular curriculum or to experiment with new approaches to learning may propose a student colloquium. Approved student colloquia enable students to plan and carry out units of study and to receive course credit for their work. Five or more students who agree on a subject for study during the semester may form a class section. Students wishing to participate in a colloquium must have sophomore or higher standing at the time of registration. A minimum of five students must complete the colloquium and participate in determining grades in order to be eligible to receive credit.
Students interested in forming a colloquium must identify a faculty member willing to serve as a sponsor for the group. The faculty sponsor must approve the topic and the terms of the proposal. The faculty sponsor, upon the request of the participants, will be available for help and advice during the course of the term.
After obtaining the advisor's approval, the student should submit the proposal to the dean of the College of Arts and Sciences. Course proposals must reach the dean in final form no later than one week before the beginning of the semester during which the colloquium will be conducted. The dean will determine whether the proposed colloquium is appropriate for credit and the number of credit hours the colloquium course will receive. The dean also makes certain that the proposed colloquium does not duplicate courses already available in the university curriculum. In the final weeks of the semester, members of the colloquium summarize their accomplishments and evaluate their achievements; they submit a final report
to the faculty advisor before the close of the final examination period of the term for which the colloquium will be credited. The faculty advisor forwards the final report to the dean, recommending approval or disapproval, along with reasons supporting the recommendation. The dean determines whether credit should be granted for the colloquium.
Students who complete the colloquium receive grades of pass or no credit. A colloquium proposal is essentially a contract from which registrants may not be able to withdraw without the consent of the other participating students. Students may obtain up to three hours of colloquium credit in any one term, but may not obtain more than six hours of such credit during their undergraduate careers. Although colloquium credit normally applies toward elective hours only, in special areas students may appeal for general education credit or for credit toward a major or minor field of study. In cases of such appeal, the dean of the College of Arts and Sciences or the chair of the appropriate department will decide.

## Undergraduate Research and Creative Activities Program

The Undergraduate Research and Creative Activities (URCA) Program at SIUE encourages, supports, and enables students to participate in research and creative activities at the undergraduate level. An undergraduate research or creative activity experience enhances the quality of the baccalaureate experience by giving students opportunities to engage in scholarship, to interact with faculty, and to connect more fully in the educational process of discovering and creating. The URCA Program recognizes that student talents can be uncovered in ways that do not always appear through the usual format of classroom instruction and testing. In cooperation with the academic departments at SIUE, the URCA Program recruits eligible students as URCA Associates or Assistants. URCA Associates work one-on-one with a faculty mentor to lead their own research projects or creative activities over the course of an academic year. This is an extremely competitive program, and only a maximum of 10 Associates will be selected per academic year. Associates are the principal investigators in their projects. The process involves several stages:
■ submitting a proposal and budget for approval,
■ being accepted into the program,

- doing the research or creative activity during
the semesters specified in the proposal,
- participating in periodic URCA events,
- preparing a final report, and

■ presenting the results at the URCA Symposium.
URCA provides budgetary support for conducting the scholarly activity as well as advisory support during preparation of the proposals and reports. The Office of Academic Innovation and Effectiveness, in which URCA is housed, assists students during their work by providing prompt administrative support as needed. Academic departments and supervising faculty mentor(s) provide all necessary research guidance and facilities. Academic departments also arrange the purchase of commodities and services required for the projects, using the project budget funds provided by the Provost's Office. In addition, URCA Associates receive a monetary award in two installments - one per each semester of participation. Full-time undergraduate students who have been accepted as a major in any of the disciplines at SIUE and who maintain a grade point average of 3.0 or better are eligible to compete for URCA Associate positions. Students must have junior or senior standing at the time they conduct their URCA Associate work and may use the URCA Associate project to fulfill the Senior Assignment requirement for graduation (with departmental approval). Proposals must be signed and submitted in the prescribed form by the third Friday of March to the Undergraduate Research and Creative Activities Program, Office of Innovation and Effectiveness, Box 1300, SIUE, Edwardsville, IL 62026-1300.
URCA Assistants work approximately nine hours per week on faculty-led research or creative activities over the course of one semester. These positions provide students with an introductory experience in the research or creative activities of a specific field. Up to 80 Assistants per semester will receive a monetary award for their participation, and many students participate each semester without receiving the monetary award. In this program, first interested faculty submit their research or creative activity proposals to the URCA Program coordinator. Faculty who have their proposals approved are then eligible to mentor URCA Assistants. After the faculty proposals are selected, students apply online for the Assistant positions through the URCA Web site (siue.edu/ urca). This typically happens in the middle of the semester before the work will be completed. Students accepted as Assistants must meet the learning outcomes set forth by the faculty member who is principal
investigator on the project. Some Assistant positions are available for course credit, but no tuition waiver is associated with the URCA program. Full-time undergraduate students at SIUE who have a minimum GPA of 2.3 are eligible to apply for URCA Assistant positions, and students may apply for Assistant positions at any time during their SIUE careers (freshman through senior years)

More information and application/proposal forms are available on the URCA website: siue. edu/urca.

## Study Abroad

Through its study abroad programs, SIUE complements the work of its academic departments by facilitating the placement of students at overseas institutions. Study abroad is
an academically focused time in a foreign setting that allows undergraduate, degree-seeking students to earn SIUE credit for approved courses taken outside the United States. SIUE-approved study abroad fulfills SIUE undergraduate academic requirements and generally qualifies for financial aid.
SIUE offers opportunities for undergraduate study abroad in more than 20 countries. These opportunities take different forms, including summer programs, semester-long programs and short-term ( $2-4$ weeks) study abroad programs led by SIUE faculty. Some of these study abroad programs are taught in English.
For more information about study abroad, visit siue.edu/studyabroad.

## Instructional Services

Academic Development Courses and Services
■ College reading courses help students develop critical comprehension skills necessary for understanding and effectively using university texts.
■ Mathematics courses prepare students for college algebra if their major programs require such, and to enter general education science and mathematics courses.

■ Basic writing courses help students write logical, clear expository essays relatively free of mechanical errors. This preparation promotes success in English composition and in introductory general education courses, all of which require written assignments.

- Other enhancement courses are offered in reading speed and efficiency, study skills, career planning and development.
Classroom activities in all Instructional Services courses actively involve students in developing their skills. Computer aided instruction frequently is incorporated into courses. Out-ofclass study groups also are encouraged.


## Testing Services

A complete range of testing options are available to students. Instructional Services administers the Miller Analogies Test (MAT), the subject tests for the Graduate Record Examinations (GRE), the ACT, the College-Level Examination Program (CLEP), SIUE proficiency examinations and placement tests, and standardized examinations for the School of Nursing. Students may earn academic credit for their prior knowledge by taking CLEP and proficiency examinations. For more information, please refer to the section titled Credit Earned by Examination, Extension and Correspondence. Students who are required to complete placement tests prior to advisement may obtain information from the Testing Services website at siue.edu/is/test, by calling (618) 6501246, or by visiting the office - room 1246 in the Student Success Center.

## Instructional and Tutorial Assistance

Instructional Services provides assistance to students enrolled in mathematics, science and business courses through its Tutoring Resource Center in the Student Success Center, room 1252. Students are helped on a first-come,
first-served basis by nationally certified tutors and instructors. Small groups are welcome, and students are encouraged to use the area for working with other students on their assignments. For more information, call (618) 650-2055.
The Writing Center provides individual assistance with papers, reports, and theses. Selfinstructional materials also are available on a wide variety of writing topics such as formatting, organization, paragraphing, grammar, and English as a second language. The Writing Center is in the Student Success Center, room 1254, and is open for daytime, evening and limited Saturday use. For more information, email wcenter@siue.edu or call (618) 650-2045.
The SIUE Speech Center is dedicated to providing the University community with quality assistance in improving public speaking abilities for both academic and professional development by improving speech development and delivery with training in presentational skills. One-onone assistance, workshops, and informative handouts are available. For more information, email speech_center@siue.edu or call (618) 650-3085.
Instructional Services offers supplemental instruction - regularly scheduled voluntary group study sessions in selected major and general education courses that are traditionally considered difficult. For more information call (618) 650-3193.

Additional support is available to students in the form of academic survival workshops, which Instructional Services staff provide on request. Workshops include topics such as time management, organizing for study, test and final examination preparation, managing academic stress, and strategies for beginning research papers. These workshops are free to students and usually are arranged by campus groups such as residence hall councils and student organizations. For more information or assistance students should visit the Instructional Services website at siue.edu/is, stop by the office in the Student Success Center, or call (618) 6503717.

## Student Development and University Activities

Campus Activities Board

The Campus Activities Board is a student-run, volunteer organization that serves both as a programming board and an advisory board. Its purpose is to provide diverse programs for the campus community; to aid in the social, educational, cultural, recreational, and leadership development of students; and to serve as the advisory board for the student programming fee. The Campus Activities Board plans and implements a wide variety of entertainment, cultural, educational and recreational programs for the SIUE community. The board consists of an executive council and 12 programming committee chairs - one for each of the following areas: Black Heritage Month, concerts, Cougar Welcome, current affairs, entertainment, family programs, Homecoming, multicultural programs, novelty, recreation, special events, and Springfest. Students interested in becoming a part of the Campus Activities Board may contact the Kimmel Student Involvement Center in Morris University Center at (618) 650-2686 or visit the website: siue.edu/cab.

## Fraternity and Sorority Life

Fraternities and sororities provide a rich tradition of leadership and service to the SIUE community. Fraternity and sorority chapters foster the personal growth of their members through their commitment to values such as academic achievement, brotherhood/sisterhood, service and integrity. Fraternity and sorority membership offer students the opportunity to form lifelong friendships, gain leadership experience, help their communities through philanthropy and community service, and participate in many fun and worthwhile programs. Students interested in becoming a member of a fraternity or sorority may contact the Kimmel Student Involvement Center in Morris University Center at (618) 650-2686 or visit the Fraternity and Sorority Life website: siue.edu/ kimmel/greek.

## Kimmel Student Involvement Center

Students enrolled at the University will find many opportunities for developing their potential and obtaining challenging leadership and service roles. The Kimmel Student Involvement Center, located on the first floor of Morris University Center, provides students with numerous services, programs, and activities to help them connect with SIUE outside of the classroom. The Kimmel Student Involvement Center is the focal point for Student Government, the Student

Leadership Development Program (SLDP), Community Engagement, the Campus Activities Board, student organizational activities, and several related student-sponsored activities. To learn more, check out siue.edu/kimmel.

## Student Government

Student Government provides opportunities for students to become involved in the decision-making processes of the University. As one of three constituency bodies of the University, Student Government represents the interests of students and collaborates with the administration on many policy matters. In addition, Student Government allocates student funds, appoints representatives to various university and student committees, recognizes student organizations, and reviews student fees. Student Government is composed of eight executive officers: the student body president, the vice president, the financial officer, the external affairs officer, the internal affairs officer, the organization relations officer, the marketing and communications officer and the student trustee - a member of the SIU Board of Trustees. In addition, there are 16 Student Senators, including two (2) graduate student senators and two (2) appointed Freshman senators, who complete Student Government. Students interested in becoming part of Student Government may call (618) 650-3819, or visit their website at siue.edu/kimmel/sg.

## Student Leadership Development Program

The Student Leadership Development Program provides opportunities for students to develop professional and leadership skills, gain practical experience, and enhance their civic awareness through participation in leadership modules and volunteer services on and off campus. The Student Leadership Development Program is open to all enrolled students. Students are encouraged to begin the program during the freshman year. The program, designed to accommodate varying students' interests and schedules, may be completed at each student's own pace. For more information, contact the Kimmel Student Involvement Center at (618) 650-2686 or siue.edu/ kimmel/sldp.

## Student Organizations and Activities

Students interested in developing their leadership potential may wish to become active in one or more of the 260 recognized student organizations. In addition to honorary
organizations that encourage and recognize academic achievement, student organizations address educational, religious, social, recreational, and political interests. All enrolled students may take part in student organizations and their activities. Throughout the year, seasonal activities offer students opportunities to become involved in campus life. The Kimmel Student Involvement Center plans, coordinates, and co-sponsors a variety of campus programs. Students taking part in the Student Leadership Development Program, and other interested students, may contribute service to such events as the Red Cross blood drives, Preview SIUE, Springfest, and Cougar Welcome. Students interested in student organizations may contact the Kimmel Student Involvement Center at (618) 650-2686 or visit the website: siue.edu/kimmel.

## Community Engagement

The Kimmel Student Involvement Center offers volunteer opportunities through organized group projects, spring break trips (both domestic and international trips), individual volunteer placement, service-learning classes, and nonpaid internships. Community engagement allow students to apply academic knowledge, gain skills and experience, and contribute to the community. Volunteer opportunities are available throughout the St. Louis area and within the University community. For more information, contact the Kimmel Student Involvement Center at (618) 650-2686 or siue. edu/kimmel/volunteer.

## Intercollegiate Athletics

The SIUE Athletics Department plays host to more than 100 home NCAA Division I events per year. SIUE students with a valid Cougar Card receive free admission to all regular season home events. The 2,660-acre campus features some of the best athletics facilities including:
■ 3,500-seat Ralph Korte Stadium for track and field, which also houses Bob Guelker Field for men's and women's soccer;

■ the 4,000-seat Vadalabene Center for basketball, wrestling and volleyball;

■ a varsity softball complex with an adjoining indoor practice facility;

- Roy Lee Field at Simmons Baseball Complex, which has a full turf infield at the 1,500-seat stadium;
- Six varsity tennis courts;
- A national-caliber cross country course.

SIUE Intercollegiate Athletics consists of 18 NCAA Division I varsity sports - men: baseball, basketball, cross country, golf, soccer, tennis, indoor track and field, outdoor track and field, and wrestling - women: basketball, cross country, golf, soccer, softball, tennis, indoor track and field, outdoor track and field, and volleyball. The Cougars compete in the Ohio Valley Conference with associate memberships in the Missouri Valley Conference (men's soccer) and the Southern Conference (SoCon) (wrestling). Students interested in getting involved in Intercollegiate Athletics can join the Red Storm, the official fan group of SIUE Athletics.
Students interested in participating in intercollegiate athletics should call (618) 6502871 or contact the head coach via the Athletics website at siuecougars.com.

## Recreational and Leisure Activities Campus Recreation

Students may take part in a wide variety of recreational and leisure activities offered through Campus Recreation. Opportunities for involvement include a wide selection of intramural sports, sport clubs, aquatics, informal recreational activities, family programs, outdoor trips and special events.
The Student Fitness Center/Vadalabene Center is available days, evenings and weekends to serve the recreational needs of the University community through extensive opportunities for fitness and recreational pursuits.

The Student Fitness Center contains:
■ six indoor courts for basketball, volleyball, tennis, indoor soccer and roller hockey;

■ a suspended jogging track;
■ a 4,000-square-foot weight room;

- two group fitness rooms (most group fitness classes are free for SIUE students);
- two, 4,000-square-foot cardiovascular exercise rooms;

■ a 3,000-square-foot indoor cycling studio;

- the Wellness Center that offers fitness services such as Fitness Assessments and Personal Training;

■ a student social lounge with big-screen TV;

- the "Energy Zone" food and beverage service.

■ a bouldering cave that includes inverted climbing options
The adjoining Vadalabene Center offers:

- a 25 yard indoor pool with diving board;

■ three racquetball courts;
■ a rock-climbing gym with 24 foot vertical climbing options;

■ two group activity rooms;
■ equipment issue office with many free and low cost items to check out or purchase;

■ shower and locker rooms equipped with dry saunas.

For more information about programs, services, and recreational opportunities, contact Campus Recreation at (618) 650-B-FIT (2348).

## Wellness Activities

SIUE provides a wide variety of fitness/wellness activities for developing healthful habits and offers many opportunities for students, faculty, and staff. Programs and activities promote healthful lifestyles and enhance physical, social, spiritual, occupational, emotional and intellectual development. Housed in the Student Fitness Center, the program provides personal fitness and lifestyle assessments, along with recommendations for change. Help also is available for stress management, development of good nutritional habits, and many other elements affecting personal well-being. For more information about fitness and wellness services, call (618) 650-B-WEL (2935).

## Spiritual Development

Students and other members of the university may participate in the activities of the Center for Spirituality and Sustainability, which is home to campus ministries of several denominations. Individual ministries maintain their own schedule of varied events, including worship services, and may collaborate on ecumenical
activities. The Center seeks to assist students and others who wish to enrich their spiritual lives. Ministers offer listening sessions, spiritual counseling, varied activities, and facilitate the connection of individuals with other resources on and off campus.

## Students' Advocate

The Office of the Vice Chancellor for Student Affairs is vitally interested in developing students' potential and in providing an environment that helps students meet their educational and career objectives. Students are encouraged to seek assistance from the office on any matter that concerns them. The Dean of Students serves as the students' ombudsman and may be particularly helpful in resolving problems involving more than one office or agency of the University. The Dean of Students may be consulted on matters of student rights and responsibilities, student conduct, and grievance procedures.
Students who wish to seek the assistance of the Office of the Vice Chancellor for Student Affairs may call (618) 650-2020 or make an appointment in Rendleman Hall, room 2306.

## University Center Advisory Board

The University Center Advisory Board (UCB) functions as a committee of students, faculty, staff and alumni representatives responsible for making recommendations to the director of Morris University Center. Board members represent building services, University Bookstore, Dining Services, finance, programming, and policy review. Students interested in becoming part of the University Center Board may contact the Morris University Center director's office, (618) 650-2300 or universitycenter@siue.edu.


## Services for Students

## Academic Advising

Students confer at least once each term with an academic advisor who provides advice regarding appropriate courses, career options and related matters. Advising is mandatory for all students before registration each term. For more information, see the section on Registration. Academic advisors for undecided and undeclared students are in the Student Success Center, room 1220. Appointments for undecided and undeclared students are necessary and may be made by calling (618) 650-3701 for new students; or by using Starfish, the Web-based appointment scheduler, for continuing undeclared students.

## Bursar

The Bursar's Office assesses tuition and fees to students and alerts students and authorized third parties of updated billing information available on CougarNet. The Bursar's Office accepts payments on student accounts, issues refunds, and generates Form 1098Ts for tax reporting.
The Bursar's Office is located on the first floor of the Rendleman Hall. Office hours are 8 a.m. to 4:30 p.m., Monday through Friday. Payments may be made online through Cougarnet or siue. edu/paymybill. Payments also may be mailed to Box 1042, Edwardsville, IL, 62026-1042. For more information, call (618) 650-3123, email bursar@siue.edu, or visit siue.edu/bursar.

## Career Development Center

The Career Development Center is a comprehensive center for the development of career objectives and direction for students and alumni. The center helps students and alumni relate their academic majors to career fields; implement and enhance their career development; explore and confirm career/ major choices; and develop job-search strategies and professional skills. These are accomplished through the integration of various career development theories, career interest inventories, and personal style inventories. Career guidance is provided through personal counseling as well as the course AD 117, Career Planning and Development.
A Cooperative Education (Co-op) and Internship Program is a major component of the career development process, assisting students in all majors to gain career-related work experience in paid paraprofessional positions or unpaid internships while attending SIUE. Some of the many other services provided by the center include workshops on
various topics, resumé referral, on-campus interviewing, and a Career Resource Center.
Accessing the Career Development Center's home page (siue.edu/careedevelopmentcenter) allows complete access to the center. Students can register with the Cougar Jobline to view career, Co-op and internship positions and to sign up for on-campus interview opportunities.
Career fairs are held annually, allowing students and alumni to network with employers, both local and national. For details about the Career Development Center, please call (618) 650-3708, stop by the office at Student Success Center 0281, or visit siue.edu/ careerdevelopmentcenter.

## Computer Network

The campus network interconnects all computers throughout the Edwardsville campus, Alton Dental School campus, and East St. Louis Higher Education Center. The network consists of more than 15,000 direct connections to the SIUE enterprise systems and the Internet. Wireless access is available at most locations throughout the campuses. Information Technology Services (ITS) manages the campus network and servers, which provide account, Internet and email services.

## Internet, Email Accounts

All students are provided a campus network account as soon as they are admitted. To obtain their account, they must go to the e-ID website, siue.edu/e-id. This includes a campus network account, Banner, email, Blackboard and GradesFirst. Campus email addresses are in the form <e-ID>@siue.edu.

## Counseling Services

Counseling Services provides short-term, time-limited counseling for students coping with personal, psychological and/or interpersonal issues. The office also provides crisis intervention, sexual assault counseling and advocacy, alcohol/drug information, consultation, and psycho-educational workshops, and serves as a practicum site for students enrolled in clinical psychology and related programs. The counseling staff is committed to helping our diverse student population adjust to living and learning in a university environment and to realize their worth and potential. Appointments are conducted in a private setting; all consultations are confidential.
Counseling Services is located in the same office suite as the Health Service, in room 0222 on the lower level of the Student Success Center.

We are open Monday through Friday, 8 a.m. to $4: 30$ p.m., and our phone number is (618) 650-2842. More information about the office is available on our website: siue.edu/counseling.
Currently-enrolled SIUE students may schedule an initial appointment by phone, online, or in person. Online appointments can be scheduled on the Counseling Services website or by going directly to cougarcare.siue.edu. After an initial session with an intake counselor, clients are matched with the most appropriate treatment based on their needs. Persons in crisis during regular business hours can come to Counseling Services and ask to speak to the first available counselor. For life-threatening emergencies, immediate help is available by calling 911 or going to the nearest hospital emergency room.

## Dining Services

Dining Services offers meal plans for residence hall and Cougar Village/Evergreen Hall residents. Meal plans can be used at Commons Dugout, Skywalk Food Court, Bluff Café, Energy Zone and at all food outlets in Morris University Center, including Union Station convenience store, Starbucks Coffee, Kaldi's Coffee, and Auntie Anne's pretzels.
Meal plans provide flexibility, convenience and savings. There is no need to carry cash; the plans use a computerized meal card. Residence hall students are required to purchase one of two meal plans. Because Cougar Village/Evergreen apartments include kitchens, meal plans are optional for those residents. Center Court, on the lower level of Morris University Center, offers hot breakfast, lunch and dinner. It also features gourmet coffees, salads, and hot entrées including meat, vegetarian and vegan menu items and a carving station. The Wok offers a variety of cooked-to-order Asian foods. Center Court also has a Knyras Grill Area; Baker's Nook featuring a dozen varieties of breads and bagels; Sweet Surprises with freshly baked cakes and pies. The Picc.a.deli area includes a variety of made-to-order sandwiches, wraps, and hot panini sandwiches. Garden Patch offers salads, soups, and fresh fruit. Chick-fil- A Express and Grab 'n' Go also are available. Cougar Den, next to Center Court, houses a Pizza Hut Express, offering pizzas, breakfast sandwiches, hot sandwiches, hot wings and bread/pizza sticks. Concina Southwest Cuisine offers tacos, burritos, nachos, gorditas, quesadillas, and other specialties. Sweetie's offers an extensive assortment of hand-dipped ice cream. Starbucks Coffee, on the first floor of Morris University

Center, includes espresso, cappuccino, latté, frappuccino, gourmet sandwiches, salads, desserts, and chocolates. Across the way is Auntie Anne's pretzels. The University Restaurant, on the second floor of Morris University Center, offers complete table service in a relaxed atmosphere, with a varied menu, and a salad and entrées bar at modest prices.
Dining Services locations outside Morris University Center include the Skywalk Food Court (top floor between Founders and Alumni Halls), Bluff Café, Commons Dugout (Commons Building, Cougar Village), Woodland/Prairie Food Cart (Woodland Hall), Kaldi's Coffee (Student Success Center) and the Energy Zone (Student Fitness Center).

## Disability Support Services

Disability Support Services is responsible for providing all academic accommodations at SIUE. Any student with a documented disability who requires accommodations should make an appointment with Disability Support Services to coordinate academic accommodations. All students with disabilities are encouraged to visit DSS in the Student Success Center, Room 1270. Students may contact the office at (618) 650-3726 (V/T) or disabilitysupport@siue. $e d u$. The office's website is at siue.edu/dss.

## Early Childhood Center

Child care is available for children of SIUE students and employees. The Early Childhood Center, on Northwest University Drive off Circle Drive, is open daily 7:30 a.m. to 5:30 p.m... Parents may choose from all-day or half-day morning programs. Children age 2-5 may be enrolled. The Center operates off a waiting list. A wait list application can be accessed at siue.edu/ earlychildhood/enrollment/ application/shtml
University students interested in early childhood education may use the center for observation, practicum, or student teaching requirements. Students interested in pursuing this opportunity should contact their academic advisor and the director of the Early Childhood Center. For more information, call (618) 650-2556.

## Health Service

Health Service, in the Student Success Center room 0220 , provides acute medical care, laboratory diagnostic testing, women's health services, and pharmacy services to the University community. Students must be enrolled and have paid the Student Welfare and Activity Fee in order to use the services at the student rate.

All students entering SIUE are required to provide Health Service with a completed Immunization Record Form and proof of immunization against measles, mumps, rubella and tetanus/diphtheria in compliance with Illinois law. Students who fail to comply with the immunization requirement will not be allowed to register for any future term at the University. International students should note that a PPD (Mantoux) tuberculin skin test is required within 1 month after entering the university. This test can be administered on the same day as an MMR, but the student must otherwise wait a period of four weeks before receiving an MMR immunization after the PPD test is administered. For more information about other services available through Health Service, please call (618) 650-2842 or go to siue.edu/healthservice.

## Information Technology Services

Information Technology Services manages computer laboratories and classrooms for student and instructor use. Hardware and software for curriculum support are purchased in consultation with school-based technology committees. General-purpose student computer laboratories are housed in Lovejoy Library, Bluff Hall, Evergreen Hall, Prairie Hall, Woodland Hall, Cougar Village Commons, Founders Hall, Peck Hall, Dunham Hall, the Science Building, the Art and Design Building, the Engineering Building and the Student Success Center.

## International Student and Scholar Services

International Student Services provides a comprehensive range of services for international students at SIUE. These services include immigration advisement, orientation, facilitating student adaptation and integration into co-curricular environment, assimilation to community hospitality program, and general support. International student coordinators serve as University liaisons with U.S. and foreign government agencies. The office is in the Student Success Center, Room 0300. For assistance or questions, please call (618) 650-3785.

## General Support Services

The office provides various workshops and cross-cultural counseling. International student coordinators maintain contact with University departments and community resources and make referrals as appropriate.

## Immigration Advisement

The office provides several kinds of assistance
for students and university employees. Help with United States immigration regulations and procedures, work eligibility, and visa information are among the services provided. In addition, the office is responsible for University compliance with immigration record keeping and reporting requirements.

## Orientation

A required orientation tailored to the needs of international students is offered before each academic term. International Student and Scholar Services offers a comprehensive orientation that coordinates with other University offices including Academic Advising, Service Center and Health Services.

## Community Interaction

The International Hospitality Program, a community volunteer organization, works closely with the office to welcome international students. Its activities include an active host family program and numerous social activities.

## Lovejoy Library

Library and Information Services provides information resources and technology to support teaching, learning and scholarship. In partnership with other academic units, Library and Information Services teaches information literacy skills and discernment needed for lifelong learning.
Lovejoy Library maintains more than 793,565 volumes, 32,733 journals and periodicals, 1,679,236 microfilm materials, and 34,033 media items. Remote access is available to a large number of library services and resources, including more than 46,822 electronic books and 32,276 electronic serial subscriptions. Faculty librarians and staff in Lovejoy Library offer assistance to students, faculty, and staff, demonstrating and teaching procedures for locating and assessing information and resources for papers, theses, or other research projects. The Library is a depository for U.S. and Illinois state documents with more than 650,000 state and federal documents, and maintains a map library of more than 144,000 maps.

Library and Information Services' resourcesharing agreements allow SIUE students, faculty, and staff to use other academic, public, and special libraries in the St. Louis area. In addition, the Library is a member of CARLI (Consortium of Academic and Research Libraries in Illinois), thus providing SIUE users access to the holdings of 76 university
libraries in Illinois through the I-Share system. Electronic access provides the opportunity to search the collections of other libraries throughout the world and to request materials from those collections through interlibrary loan. See siue.edu/lovejoylibrary for details.
Library and Information Services is available through social media such as Facebook, YouTube, and Twitter and the Library's mobile website - SIUE Libraries Mobile. Traditional reference services have been augmented by chat reference and text reference. Facilities are available for information literacy instruction. The Library also offers 3D printing services.
Library and Information Services provides check-out services for a variety of equipment, such as laptop computers, DVD players, tape and CD recorders, digital cameras, camcorders, etc. Media, such as DVDs, videotapes, CDs, etc., are available for checkout by students, faculty, and staff. The first and second floors of the Library provide space and seating for individual library research and group study.

## Morris University Center

Morris University Center (MUC) is the center of student life on campus. The University Center serves the entire campus and surrounding community. Services include meeting rooms, conference center, a ballroom, locker rental, wireless Internet access, multiple dining options, University Bookstore and other services for students, faculty, staff and visitors.

The main level features the Meridian Ballroom as the preferred venue for campus lectures, dances, Arts \& Issues events, luncheons, receptions, and many other University and community activities. The Goshen Lounge is frequently the forum for debates, special events, exhibits, and entertainers. The University Bookstore features SIUE clothing and gifts, school and art supplies, general interest books, Apple computers, iPods, Ipads, software and accessories, greeting cards, supplemental course materials and graduate-level textbooks. The Welcome Desk serves as the information center for the building, the lost-and-found for the campus, and sells bus passes and tickets for Campus Activities Board (CAB) events, late night dances, and other events. Union Station is the campus convenience store, providing grab and go meal items, snacks, groceries and beverages. TheBANK of Edwardsville provides complete banking services, including an ATM. Auntie Anne's pretzels offers handmade pretzels, and Starbucks offers
coffee and other beverages and pastries.
On the lower level, Cougar Lanes includes bowling with cosmic lighting, pool, billiards, video games, air hockey and table tennis. University Hair offers complete hair styling services for men and women. For appointments, call (618) 650-2299. Many SIUE dining options are located in the lower level of the Morris University Center, including the Center Court food area, Chick-fil-A, Pizza Hut Express, Cocina Southwest Cuisine and Sweete's ice cream, shakes and smoothies. The Multicultural Center, Fixins the University Restaurant, Event Services, MUC Marketing, MUC Business Office, meeting rooms and the Conference Center are on the upper level.

## Student Success Center

The SIUE Student Success Center consolidates student services and resources to help improve recruitment, retention and graduation rates. The Student Success Center houses, among others, International Student Services, Academic Advising, Career Development Center, Counseling Services, Disability Support Services, and Health Service. Kaldi's Coffee is located on the main level of the Student Success Center.

## Museum/Gallery

The founders of SIUE intended that art should be part of everyone's daily experience on campus, and it is part of the mission of the Museum to realize this goal. The University Museum is responsible for the care and display of SIUE's extensive collection of cultural objects. These are presented throughout the campus in a series of permanent and temporary exhibitions designed to reflect the creative diversity of the people and cultures of the world. Included in the collections are objects from Pre- Columbian, Native American, African, Oceanic, Oriental, Greek, Roman, and Egyptian cultures as well as works by contemporary artists.
Among the most interesting collections is the Louis H. Sullivan Architectural Ornament Collection, which includes fragments from many of the best buildings by this noted American architect as well as objects from buildings by many of his contemporaries and students, including Frank Lloyd Wright. These pieces are displayed primarily in the gallery in the southeast corner of the second floor of Lovejoy Library and in the basement hallway of Alumni Hall.
The Museum also makes objects from the collections available for classroom use by

University faculty members and for use by area school teachers and educators.

## Parking

SIUE parking is based on color-coded lots with corresponding permits. All students who park a vehicle on University property must purchase and display a current, valid SIUE permit. Commuter and resident student permits may be purchased online on the Parking website, siue.edu/parking or at Parking Services, Room 1113, Rendleman Hall. Evening students have the option of purchasing one of a limited number of evening permits. These permits are sold on a first-come, first-served basis and are valid for parking in Lots A and E after 3:30 p.m. Students may not purchase a permit if they have outstanding parking fines. Payment for a citation must be received by Parking Services within 14 days of the citation issue date to avoid the addition of a late fee.

## Parking for Persons with Disabilities

Students who have state-issued disability hangtags, parking cards or plates also are required to purchase and display SIUE parking permits in order to use parking spaces for persons with a disability on University property. Vehicles with appropriate permits may be parked in handicapped spaces only when a person with a disability is the driver or passenger. For shortterm health problems, one 30-day temporary disability permit may be authorized by Health Service. If a student has a note from a doctor, it may be taken directly to Parking Services for the 30-day permit. The student also must have a current SIUE permit. An SIUE temporary disability permit does not authorize a person to park in a space for persons with a disability. Rather, Health Service and Parking Services work together to provide parking that is closer and more convenient. A state-issued permit is suggested if the need persists beyond 30 days.

## Service Center

At the Service Center, in Rendleman Hall, room 1309, SIUE students can find information and help with registration, class adds, drops and withdrawals, transcript requests and other student administrative business.
Among the many services provided are:
■ address, name and student identification number changes

- applications for admission (undergraduate and graduate)

■ applications for graduation
■ Bursar satellite cashier station

- class registration and schedule changes (adds, drops, withdrawals)

■ CougarNet access to student records and web registration
■ enrollment certification requests

- forms and general information related to a variety of student concerns

■ Graduate Records matters
■ reclassification-of-residency applications

- transcript requests
- tuition calculation
- Cougar ID cards
- Cougar Bucks deposits

Service Center hours are 8 a.m. to 6 p.m. Monday and Thursday, and 8 a.m. to 4:30 p.m. Tuesday, Wednesday and Friday. During summer term (approximately May 1 through August 15), hours of service may be reduced. The Service Center offers additional hours of service at the beginning of each term. These hours are subject to change when classes are not in session and at other times as needed.

## Special Information for Evening Students

For evening students, the Service Center offers limited assistance for Parking Services and selected other offices when those offices are closed. Bursar services are available in the evening at the satellite cashier station. In addition, several offices, including Parking Services and Textbook Service, offer extended evening hours whenclasses are in session.
Some services, including Lovejoy Library, Academic Counseling and Advising, and the University Bookstore, have extended hours Monday through Thursday evenings when classes are in session. Inquire at each office for specific hours of operation.

For more information about the Service Center, call (618) 650-2080, or (888) 3285168, ext. 2080, visit the Service Center website at siue.edu/registrar, or send email to servicecenter@siue.edu.

## The SIUE Experience

Before the first day of fall semester classes, the University hosts The SIUE Experience - the official welcome to the University for incoming
freshmen. The SIUE Experience is a series of activities designed to acquaint new students with the university, including academic programs and related requirements, and student life. The program provides opportunities for freshmen to meet other students, faculty, and staff. The SIUE Experience begins the weekend before the first day of classes. The first activity is movein day for those who will live in University Housing. Required events include a service project and small group sessions that introduce students to SIUE's core values: Excellence, Wisdom, Inclusion, Citizenship, and Integrity. It explores the purpose and expectations of a college education, and the meaning of membership in the SIUE community. The University expects the entire freshman class to fully participate in The SIUE Experience.

## New Student Registration

Entering freshmen will attend Springboard to Success, a mandatory pre-entry advisement program that will begin their University experience and allow a smooth transition to SIUE. Students will meet with an academic advisor, register for classes, get an SIUE student ID and take care of other university business.

Entering transfer students who are undeclared are required to attend an hour-long advising appointment with an academic advisor in the Office of Academic Advising.
All students, except visiting students, must meet with an academic advisor before registration. During this advising session, a registration hold will be released that will be required to access Web registration. It is important that you plan your schedule appropriately, ensuring that all prerequisites and class restrictions have been satisfied prior to enrollment. Prerequisites and class restrictions may be reviewed in the class schedule published through CougarNet. To avoid unnecessary problems with enrollment, please follow these guidelines:

- Meet with an advisor.
- Have your registration hold released.

■ Ensure that you have cleared any additional holds that may be on your record.

- Ensure that pre-requisites and class restrictions are satisfied.
- Obtain approval to enroll when necessary.
- Register early in the registration period.
- Obtain your billing information through CougarNet.
-Make payment by the due date.
Registrations may be cancelled by the University for academic, disciplinary or financial reasons. While the University reserves the right to cancel students for administrative reasons, it is the student's responsibility to drop classes in which enrollment is no longer desired. Schedule changes may be made online through the Friday preceding the first day of the term.
Students are expected to register before the term begins. It is advisable to register as early as possible to ensure sufficient space availability in desired classes. Beginning with the first day of the term, students will be assessed a non-refundable $\$ 25$ late registration fee. No registrations will be accepted after the second week of the semester.


## Student Identification Cards - Cougar Card

Students receive an identification card, called a Cougar Card, which bears their image and identifies them as enrolled students at SIUE. The Cougar Card is an all-purpose card required for identification, meal plans, debit plans, vending, and admittance to SIUE buildings and events.
Every student, faculty member and staff member is eligible to obtain a card by providing a government-issued photo identification (e.g. driver's license or other photo ID). Students, faculty and staff may open Cougar Bucks and Bank of Edwardsville debit accounts. Although entrusted to you while you are enrolled at or employed by SIUE, the Cougar Card remains the property of the University. Unauthorized use or use by a party other than the person identified on the Cougar Card, or tampering with or altering the card warrants confiscation and possible disciplinary action by the University. The Cougar Card should be carried at all times in order to use a multitude of campus services. For more information about Cougar Cards and how to establish a Cougar Bucks account, contact the Service Center at (618) 650-2080, stop by Rendleman Hall, room 1309, or visit the Cougar Card website at siue.edu/cougarcard.

## Student Legal Services

Students may seek free legal counsel and referrals through a licensed attorney. Through the services of the attorney, students may gain an understanding of legal processes and the law. The attorney advises and assists students on matters such as landlord/tenant disputes, contracts, consumer rights, family matters, bankruptcy, small claims matters, traffic matters, and wills. In addition to providing legal
consultation, the attorney provides referrals to other attorneys as well as notary service.

Enrolled students may receive assistance through the Student Legal Services Program. For details, call the Kimmel Student Involvement Center at (618) 650-2686.

## Student Opportunities for Academic Results (SOAR)

The objective of the SOAR program is to retain and graduate underrepresented students. It is open primarily to
first-generation college students. Services offered through the program include academic counseling and advising, tutorial assistance, supplemental instructional support, meetings with an assigned advisor, and opportunities to attend cultural events. Students who meet the criteria and have a need for academic support are encouraged to apply to the program.
For details about the SOAR program, please visit siue. edu/soar, call (618) 6503790 , or stop by the office in the Academic Advancement Center of the Student Success Center (enter via Suite 1220).

## Textbook Service

For a nominal rental fee per credit hour, undergraduate students are entitled to rent the majority of their required books for their courses, including off-campus classes. The textbook rental fee is charged to the student's account, along with tuition and other fees. Students enrolled in classes simply visit Textbook Service, present their ID and obtain their books for the semester. Supplemental and optional texts for undergraduate courses are available for purchase in University Bookstore on the first floor of Morris University Center. The University Bookstore also provides purchase texts for graduate, professional, and online courses. Textbook Service is located in University Park on the edge of campus. Students may park in adjacent parking lot P4.
Textbook Service has expanded hours of operation for issue and return periods at the beginning and end of each term. Call (618) 650-3020 for dates and times of expanded hours, or check the web at siue.edu/muc textbooks.shtml. During the rest of the semester, regular business hours are Monday, 8 a.m. to 6 p.m., and Tuesday through Friday, 8 a.m. to 4:30 p.m. Students dropping classes or withdrawing from all classes must return their texts immediately to avoid penalties. Textbooks
may be returned at any time if they are not needed. At the end of each semester, textbooks must be returned to Textbook Service by 5 p.m. the Saturday of finals week. Books not returned by the deadline will be charged to the student's account. The amount charged will be the full replacement cost of each book.

## University Housing

University Housing accommodates about 3,500 residents in smoke-free residence halls and apartments. Each fully furnished, air-conditioned suite or apartment has data jacks, wireless access to the SIUE network and expanded basic cable television. Laundries are located in each residence hall and in various locations throughout Cougar Village.
Trained, professional residence life staff are available to assist students 24 hours a day. Residents may participate in hundreds of academic and social activities and programs each year.

## First Year Living Options

First-year residents live in Bluff Hall, Prairie Hall or Woodland Hall. Students may opt for a general assignment or may participate in one of our first-year Focused Interested Communities (FICs). FICs are housed throughout all three buildings and are designed to complement an academic major or interest. These communities allow residents to interact with other students with similar goals and interests, receive academic support, explore a specific concentration or career and connect with faculty outside the classroom. More information about first-year living options and Focused Interest Communities can be found at siue.edu/housing.

## Residence Hall Features:

■ suite-style living, with two residents sharing a room and four residents sharing a bath;
■ air conditioning;

- data jacks;
- wireless access to the SIUE network;

■ expanded digital cable TV service with access to UHTV- 2.1, an in-house movie channel;
■ 24-hour security;
■ access for persons with disabilities;
■ social lounges (includes kitchenette, TV, and microwave) and study lounges on each wing;
■ individual mailboxes;
■ wall-to-wall carpet;

■ 24-hour computer lab;

- sand volleyball and disc golf courses;
$\square$ social and academic programs and activities; and
■ support programs and personnel to assist in adjusting to college/campus life.


## Upperclass Living Options

Sophomore students and above have three on-campus living options: Evergreen Hall, Cougar Village Apartments and the upperclass wing in a residence hall. Evergreen Hall combines the independence of apartment-style living with the amenities of a residence hall. Students can choose a space in one of four different floor plans:

- Studio apartment - one person, private unit with kitchen and bathroom
■ 4-bedroom suite - four people, private bedrooms, one bath, living room, no kitchen
- 4-person apartment - four people, private bedrooms, one bath, living room, full kitchen
■ 6-person apartment - six people, two private bedrooms, 2 shared bedrooms, two baths, living room, full kitchen

All Evergreen Hall units are air-conditioned and fully furnished. There are fully equipped kitchens throughout the building. Evergreen features 24-hour security, expanded digital cable television, and wireless access to the SIUE network (active data jacks also available) and an active telephone jack in each unit. The building also features social and study lounges on each wing, a 24-hour computer lab, fitness center, and social and academic activities.

Cougar Village is a 496-unit apartment complex that is home to single, graduate, and family residents. Each apartment is furnished with a stove/oven, refrigerator, dining table and chairs, desks, dressers, drapes, couch, end tables, chairs and beds. Single students may share an apartment with one, two, or three other students. Cougar Village also includes family housing, where residents may choose furnished or unfurnished two- or three-bedroom apartments. Special features for families include a children's playground, Family Resource Center, bus service to local schools, and family activities. Traditional freshmen are allowed to live at Cougar Village only as contracted family residents.
The activity center at Cougar Village is the Commons Building. The Commons features a lounge with a widescreen TV, the Commons Grill
and Convenience Store, computer laboratory with Internet access, laundry, multifunction room and staff offices. Several outdoor tennis courts, sand volleyball and basketball courts also can be found in Cougar Village. Apartments include: wireless access to the SIUE network, expanded digital cable television with access to UHTV-2.1, an in-house movie channel, locked mailboxes, storage closet assigned to each apartment and free shuttle to campus core.

## Application

To apply for on-campus housing at SIUE, students must submit a completed housing application along with a $\$ 300$ deposit (consisting of a $\$ 25$ non-refundable application fee, a \$75 security deposit, and $\$ 200$ applied toward room charges). The application/contract is not complete and will not be considered without the $\$ 300$ deposit. Students should apply for University Housing early due to limited availability. The deadline for fall-spring contracts is May 1; the deadline for spring only is December 1; and the deadline for summer only is April 1. The Family Housing application also is available online. Family residents are required to pay a $\$ 175$ deposit ( $\$ 25$ nonrefundable application fee and $\$ 150$ applied toward room charges). Penalties are assessed for cancellation of the housing contract. You must be admitted to the University in order to apply for University Housing. For more information about University Housing, write the Central Housing Office, P.O. Box 1056, Edwardsville, IL 62026-1056, call (618) 650-3931, or email housing@siue.edu. Messages may be left after hours, on holidays and on weekends. Additional information may be found at siue.edu/housing.

## Off-Campus Housing

University Housing offers information about off-campus facilities to help students, faculty, and staff locate available accommodations in the Edwardsville area. Students can visit offcampushousing.siue.edu for listings. The University reserves the right to deny the privilege of listing off-campus housing on the University Housing website if landlords do not comply with the Civil Rights Act of 1968, other laws governing discrimination, or governmental health and safety standards.

## University Police

SIUE police are committed to providing a safe and secure environment for students, employees and visitors, and to enforcing all state and federal laws and institutional policies and regulations to ensure such an environment. The University

Police Department is housed in the Supporting Services Building and provides services at all times. The non-emergency telephone number for University Police is (618) 650-3324. Emergency 911 calls are directed to the University Police Department, which is responsible for dispatching appropriate police, fire or ambulance services.
Other police services include helping retrieve keys from locked vehicles, jump-starting inoperable vehicles, and providing tools to engrave items for theft prevention. University Police provide a safety escort service for University community members. University Police operate under a Community Oriented Policing philosophy, which sets the foundation for providing quality service based on high ethical standards. It includes being responsive and responsible to the community by building partnerships with students, faculty and staff. University Police are highly visible through bicycle, foot and vehicular patrols.
The University Police Department publishes the SIUE Annual Security and Fire Safety Report, available online at siue.edu/securityreport. The report contains campus safety and security information, crime statistics, fire safety policies and fire statistics for the previous three calendar years. This report is published in compliance with Federal law, titled the "Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act" and the Higher Education Opportunity Act also known as the "Campus Fire Safety Right to Know." For those without computer access, a paper copy of the report may be obtained, with a 24 -hour notice, from the Office of the Vice Chancellor for Administration, Rendleman Hall, Room 2228, (618) 650-2536.
University campuses, like all other communities, are not immune to crime. Students, faculty, and staff are urged to take advantage of safety programs, to take all reasonable precautions for their own safety and to report all crimes. Non-Emergency Telephone Number: (618) 650-3324 Emergency: 911

## Veterans Certification

The Office of Veterans Certification is in Rendleman Hall, room 1207, within the Office of the Registrar, and helps students with use of educational benefits administered through the Department of Veterans Affairs, including:

- The Post-9/11 GI Bill
- Montgomery GI Bill - Active Duty (MGIB-AD)

■ Montgomery GI Bill - Selected Reserve (MGIB-SR)

■ Reserve Educational Assistance Program (REAP)
■ Veterans Educational Assistance Program (VEAP)
■ Survivors' and Dependents' Educational Assistance Program (DEA)
SIUE will certify your enrollment and charges, if appropriate, to the Department of Veterans Affairs upon receipt of the Veterans Benefits Information form and confirmation of enrollment. The Veterans Benefits Information form is available at siue.edu/registrar and at the Service Center, Rendleman Hall, room 1309. If you make changes to your enrollment or program of study following initial submission of your request, you should report these changes as soon as possible to Veterans Certification in person in Rendleman Hall, room 1207, or by telephone, (618) 650-2234. Information also is available on the Registrar's Veterans Certification website, siue.edu/registrar/ forms/veterans.shtm and on the Veterans Services website at siue.edu/veterans.
Additional information about veterans' education benefit programs is available at benefits.va.gov/gibill. Please note that SIUE does not certify eligibility to receive benefits. If you have questions related to your eligibility, you should contact the Department of Veterans Affairs at (888) 442-4551.
Information about the Illinois Veterans Grant, Illinois National Guard Funding, and POW/MIA benefits is available through the Office of Student Financial Aid, Rendleman Hall, Room 2308.
Staff in SIUE's Transfer Center in the Office of the Registrar are available to help students with transfer of credit and application of basic training/military credit. More information about transfer credit and military credit acceptance practices and procedures is available at siue.edu/transfer.

Veterans enrolled at SIUE daily make use of the many services offered to students, including Disability Support Services, Counseling and Health Services, Career Development Center, and academic support services.


## Degrees and Programs

Abbreviations

B.A. Bachelor of Arts
B.F.A. Bachelor of Fine Arts
B.L.S. Bachelor of Liberal Studies
B.M. Bachelor of Music
B.S. Bachelor of Science
B.S.A. Bachelor of Science in Accountancy
B.S.W. Bachelor of Social Work
D.M.D. Doctor of Dental Medicine
D.N.P. Doctor of Nursing Practice

Ed.D. Doctor of Education
Ed.S. Education Specialist
M.A. Master of Arts
M.B.A. Master of Business Administration
M.F.A. Master of Fine Arts
M.M. Master of Music
M.M.R. Master of Marketing Research
M.P.A. Master of Public Administration
M.S. Master of Science
M.S.A. Master of Science in Accountancy
M.S.Ed. Master of Science in Education
M.S.W. Master of Social Work
P.B.C. Post-Baccalaureate Certificate
P.M.C. Post-Master's Certificate
P.S.M. Professional Science Master's

Pharm.D. Doctor of Pharmacy
S.D. Specialist Degree

## College of Arts and Sciences

| Anthropology <br> Applied Communication Studies | B.A., B.S. |
| :---: | :---: |
|  | B.A., B.S., M.A. |
| Graduate Specializations: |  |
| Health Communication |  |
| Interpersonal Communication |  |
| Organizational Communication |  |
| Public Relations |  |
| Art B.A. | B.A., B.S., M.F.A. |
| Undergraduate Specializations: |  |
| Art Education |  |
| Art History |  |
| Art Studio |  |
| Graduate Specialization: |  |
| Studio |  |
| Art and Design | B.F.A. |
| Art Therapy Counseling | M.A. |
| Biological Sciences B.A., B | B.A., B.S., M.A., M.S |
| Undergraduate Specializations: |  |
| Ecology, Evolution, Environment |  |
| Genetics and Cellular Biology |  |
| Integrative Biology |  |
| Medical Science |  |
| Medical Technology |  |
| Chemistry B | B.A., B.S., M.S. |
| Undergraduate Specializations: |  |
| ACS Certified in Biochemistry |  |
| ACS Certified in Chemistry |  |
| Biochemistry |  |
| Forensics Chemistry |  |
| Medical Science |  |
| Criminal Justice Studies | B.A., B.S. |
| Earth and Space Science Education | on B.S. |
| Economics | B.A., B.S. |
| English | B.A., M.A. |
| Undergraduate Specialization: |  |
| Secondary English Language Arts | Arts |
| American and English Literature | P. P.C. |
| Teaching English as a Second Language | nguage P.B.C. |

Teaching of Writing
P.B.C.

Graduate Specializations:
Literature
Creative Writing
Teaching English as a Second Language
Teaching of Writing
Environmental Sciences M.S.
Environmental Science Management P.S.M.
Foreign Languages and Literature B.A., B.S.

Undergraduate Specializations:
French
German
Spanish
Geographical Studies M.S.
Geography B.A., B.S.
History
Museum Studies
Integrative Studies
Liberal Studies
Mass Communications
Media Literacy
Mathematical Studies B.A., B.S., M.A.
P.B.C.
B.A., B.S.
B.L.S.
B.A., B.S., M.S.
P.B.C.

Undergraduate Specializations:
Actuarial Science
Applied Mathematics
Pure Mathematics
Statistics
Mathematics
M.S.

Graduate Specializations:
Computational and Applied Mathematics
Postsecondary Mathematics Education Pure Mathematics
Statistics and Operations Research
Music
B.A., B.M., M.M.

Undergraduate Specializations: Jazz Performance
Music Business
Music Education
Music History/Literature
Music Performance
Music Theory and Composition Musical Theater
Piano Pedagogy P.B.C.
Vocal Pedagogy P.B.C.

Graduate Specializations:
Music Education Music Performance
Philosophy B.A. B.S.
Physics
B.S.

Undergraduate Specializations: Astronomy
Biomedical Physics
Photonics and Laser Physics
Political Science
Public Administration
Social Work
B.A., B.S.
M.P.A.

Graduate Specialization: School Social Work
Sociology B.A., B.S., M.A.
Undergraduate Specialization: Employment Relations
Theater and Dance
B.A., B.S.

Undergraduate Specializations: Dance Design/Technical History/Literature/Criticism Performance

## School of Business

Accountancy
B.S.A., M.S.A.

Graduate Specialization: Taxation
Business Administration
Undergraduate Specializations:
Economics
Entrepreneurship
Finance
General Business Administration
Human Resource Management
International Business
Management
Management and Information Systems
Marketing
Graduate Specializations:
General Business Administration
Management \& Information Systems
Business Economics and Finance
Computer Management and Information Systems
Economics and Finance
Marketing Research
B.S., M.B.A.

School of Dental Medicine
Dentistry
Advanced Education in General Dentistry
P.M.D.

## School of Education, Health, and Human Behavior

College Student Personnel
Curriculum and Instruction,
Early Childhood Education
Educational Administration
Educational Leadership
Elementary Education
Exercise Science
Health Education
Instructional Technology
Web-based Learning
Kinesiology
Graduate Specialization:
Exercise Physiology
Physical Education and Coaching Pedagogy
Exercise and Sport Psychology
Learning, Culture and Society,
Literacy Education Literacy Specialist
Nutrition
Psychology
Graduate Specializations:
Clinical Psychology
Clinical Child and School Psychology General Academic Industrial-Organizational
School Psychology
Special Education
Speech Language Pathology
B.S., M.S.Ed., P.M.C.

Speech-Language Pathology and Audiology
B.A., B.S.

School of Engineering
Civil Engineering
B.S., M.S.

Graduate Specializations: Environmental Engr/Water Resources Geotechnical Engineering Structural Engineering Transportation Engineering

Computer Engineering
B.S.

Computer Science B.A., B.S., M.S.

Construction Management
B.S.

Undergraduate Specialization: Land Surveying
Electrical Engineering B.S., M.S.
Industrial Engineering B.S., M.S. Undergraduate Specialization: Manufacturing Engineering
Mechanical Engineering
B.S., M.S.

## Graduate Studies and Research

Healthcare Informatics
M.S.

School of Nursing
Nursing
B.S., M.S.

Graduate Specializations:
Family Nurse Practitioner
Health Care and Nursing Administration Nurse Educator
Family Nurse Practitioner
P.M.C.

Health Care and Nursing Administration P.M.C.
Nurse Educator
P.M.C.

Nursing Practice
D.N.P.

Graduate Specializations:
Family Nurse Practitioner Nurse Anesthesia

## School of Pharmacy

Pharmacy Pharm.D.
Graduate Specialization:
Pharmacy Education
Pharmacy Pediatrics

## Minor Programs of Study

Aerospace Studies
African Studies
Anthropology
Art/Art History
Art/Studio Art
Asian Studies
Biological Sciences
Black American Studies
Business Administration
Chemistry
Classical Studies
Computer Engineering
Computer Science
Construction Management
Criminal Justice Studies
Electrical Engineering
English/Creative Writing
English/Linguistics
Environmental Sciences
European Studies
Forensic Sciences
French
Geographical Information Systems
Geography
German
Health Education
History
Industrial Engineering
Instructional Technology
Latin American Studies
For more information on gainful employment programs at SIUE, please visit siue.edu/financialaid/certificateprograms2014.shtml

## General Education

## Objectives for General Education and the Baccalaureate Degree

The purpose of baccalaureate education at Southern Illinois University Edwardsville is to provide students with a solid foundation for intellectual development and an ability and desire to make contributions to society. As a public institution, SIUE strives to develop students who are well-informed, effective citizens; who provide leadership in civic and community affairs; who appreciate the arts; who have increased capacity for self-reflection, self-assessment and healthy living; and who will pursue lifelong learning.

The undergraduate curriculum encourages students to see the events of the world in broad perspective and to bring a reasoned approach to the challenges they may face. To achieve these purposes, the University seeks to impart the following abilities and knowledge to its students through their general education and study in their academic majors and minors:
Analytic, Problem-Solving, and DecisionMaking Skills - All students will develop skills in information literacy and quantitative literacy, and develop the ability to understand and interpret written and oral texts, and to recognize, develop, evaluate, and defend or attack hypotheses and arguments. These skills are to be developed throughout all undergraduate programs in all courses.

Oral and Written Communication Skills All students will develop skills in expository, argumentative, and creative writing, and in effective speaking and listening through extensive and regular writing assignments, oral presentations, and participation in discussions.
Foundation in Liberal Arts and Sciences - All students will acquire a solid base of knowledge in liberal arts and sciences and of the contributions of these fields to civilization and to the quality of life. All undergraduate degree programs at SIUE, including professional programs, are rooted in the liberal arts and sciences through the integration of each major program with the general education program.
Value of Diversity - All students will gain an understanding of the traditions that influence individuals and communities in order to develop a respect for and a sensitivity to human diversity. Students will gain a deeper understanding of global interdependence.
Scientific Literacy - All students will have experience in the methods of scientific inquiry
in laboratory and field investigation and gain knowledge of scientific and technological developments and their influence on society.

Ethics - All students will understand the nature of value judgments, will have an ability to make reasoned and informed value judgments, and will appreciate the diversity among cultures with respect to mores and traditional standards of conduct.
Preparation in an Academic or Professional Discipline - Students completing the baccalaureate degree will have attained a level of achievement within an academic or professional discipline which will enable them either to begin a career in the discipline or to pursue graduate work in that or an appropriately related discipline.

## The Bachelor of Arts and Bachelor of Science Degrees

Recognizing the diversity of students who attend Southern Illinois University Edwardsville, the plurality of their interests and the complexity of the needs of contemporary society, the University provides parallel types of baccalaureate education: the Bachelor of Arts (BA), the Bachelor of Science (BS), the Bachelor of Liberal Studies (BLS) and professional baccalaureate degrees. University-wide criteria mandate the broad content of these respective degrees in order to assure that they are equivalent and meaningfully differentiated degrees. All types of degree impart the common Objectives described above, but they inflect them differently. The General Education Program described below is partially responsible for imparting the abilities and knowledge that constitute the baccalaureate education described above.

## General Education Program

SIUE's General Education Program—the Lincoln Program—plays a significant, foundational and guiding role in preparing students to meet the standards contained above in the Objectives of the Baccalaureate Degree. Why is it called the Lincoln Program? There are several ways in which Abraham Lincoln embodies the purposes of baccalaureate education at SIUE. Mostly self-educated, he took responsibility for his own education and this experience instilled in him a deep-seated respect for learning. Lincoln understood that education has utility and value for both the individual and the society. He understood that education is crucial to the free development of the individual, that education is crucial to the development of a vibrant economy,
and that education is crucial to the development of a free and democratic society. He approached education as a lifelong vocation for which each citizen was responsible.
Abraham Lincoln exemplifies the best qualities of an educated person: curious, courageous, humble and free. The Lincoln Program is designed to instill in SIUE students similar qualities: curious about the world, courageous in applying knowledge to the improvement of self, society and world, humble in the face of the limits of one's knowledge and the consequences of one's actions, and free to further develop one's wisdom and to change the course of one's actions. The Lincoln Program provides a foundation for liberal education.

What is a liberal education? Liberal education is an education that is liberating, providing students the opportunity to develop the skills and knowledge necessary to explore themselves, others and the world. The Lincoln Program is liberating in three senses:

■ Students develop and enhance foundational competencies in communication, rational thought and decision-making. By refining these competencies, they gain self-knowledge and self-control as well as prepare themselves to choose professional careers which express their individual interests and abilities;

■ Students have the opportunity to explore the breadth and richness of the world. By engaging in this broad exploration, they enrich themselves and bring more experience to their professional careers and can advance further in them;
■ Finally, as students come to enhance foundational competencies of communication and thought, exploring wider worlds, they become more attuned to the order and chaos, the justice and the injustice, and the beauty and ugliness of the world. University education offers experiences for students, providing them the opportunity to confront their own responses to these situations and to develop strategies for evaluating and dealing with them, thereby becoming more sensitive, ethical human beings, progressively freed from their prejudices. As students become more sensitive human beings they can become leaders who are inspirations in their private lives and who are visionaries in their professional lives.

The Lincoln Program lays the foundation for the development of life lived in accord with reason, curiosity and sensitivity. It prepares students
to develop specialized skills, through their major programs, that let them not only choose professional careers, but become leaders in their professions. Finally, general education prepares students to participate in political society through the development of their capacities for analysis, critical thinking, judgment and decision-making which are necessary for citizens of a democratic, free society.
The specific components of the Lincoln Program are:
FOUNDATIONS: All students are required to take five (5) Foundations courses which develop competencies in written and oral communication, logic, and quantitative literacy that form the bases of information literacy and scientific literacy;
BREADTH AREAS: All students are required to take six (6) Breadth courses (one from each of the following areas) which provide the opportunity to explore the breadth of human knowledge by introducing students to the principles, substance, and methodology of disciplines beyond their major. These courses are distributed across six Breadth Areas: Fine and Performing Arts, Humanities, Information and Communication in Society, Life Sciences, Physical Sciences, and Social Sciences;
INTERDISCiPLINARY STUDIES: All students are required to take one (1) Interdisciplinary Studies course to foster awareness of the interrelationships among branches of human knowledge;

## EXPERIENCES:

■ New Freshman Seminar: All new freshmen are required to enroll in a New Freshman Seminar that introduces students to university learning, expectations and procedures by exploring various topics of academic and civic interest with a faculty member;

■ Laboratory Experience: All students are required to take a laboratory course in order to develop scientific literacy that helps shape informed citizens;

■ United States Cultures Experience: All students are required to take a course or complete an approved project or activity that explores the diverse, pluralistic population of the United States and the contributions these diverse groups have made to our shared culture;
■ Global Cultures Experience: All students are required to take a course or complete an approved project or activity that explores one or more
non-U.S. cultures in order to gain an appreciation and understanding of human diversity in a dense, globally interconnected world;
■ Health Experience: All students are required to participate in a health-related course or complete an approved project or activity in order to promote improved health and well-being.
SENIOR ASSIGNMENT: All seniors are required to complete the Senior Assignment that demonstrates breadth commensurate with SIUE's general education expectations and proficiency in the academic major. The Senior Assignment represents the culmination of the entire undergraduate experience at SIUE and should integrate the best aspects of each student's baccalaureate education. Each academic major has its own Senior Assignment, so the specifics of the requirement vary, but they share a challenge to each SIUE student to achieve individual academic excellence. This is what distinguishes baccalaureate education at SIUE.

Students must satisfy all general education components to obtain a baccalaureate degree from Southern Illinois University Edwardsville.

## FOUNDATIONS

The Foundations requirements of the Lincoln Program lay the groundwork for all future coursework at the University. These classes are designed to provide students with transferable skills and competencies that can be applied through the rest of their college studies and beyond. Written and oral communication, logic and quantitative literacy are developed and practiced in the five required Foundations courses.
Written and oral communication is a vital tool in today's society. Therefore, three of the Foundations courses are devoted to this area. Students are required to take a two-semester sequence in English composition (ENG 101 and ENG 102). These two required courses are designed to help students think, argue and clearly express themselves in written form, as well as to develop basic skills in academic research. The various sections of English 102 develop basic research skills and basic information literacy and are theme-based, which allows students to select topics that pique their curiosities or are tailored to their potential majors. Further, students are required to take a course in oral communication, Applied Communication Studies 101, "Public Speaking." This course trains students in oral argumentation and requires them to prepare and deliver a number of formal speeches.

The remaining two Foundations courses focus on logic and quantitative literacy; these skills are explored, developed and practiced with the aim of enhancing students' practical capacities to think critically, to engage in analysis, to make judgments, and to solve problems. Reasoning and Argumentation (RA 101) is devoted to developing fundamental reasoning skills in diverse content areas. This course involves use of texts to identify, analyze, evaluate and construct arguments. The practical application of mathematics is explored in Quantitative Reasoning (QR 101), which focuses on the use of computational skills to address real-life problems. RA 101 and QR 101 lay the foundation for scientific literacy-the capacity to apply reason in making and evaluating arguments about the natural and social worlds around us.
Students must take and pass the first English composition course (ENG 101) and the Oral Communication course (ACS 101) within their first 30 college-level ( $100-$ level or above) credit hours at SIUE, the second English composition course (ENG 102) within their first 45 collegelevel credit hours at SIUE, and the Quantitative Reasoning and Reasoning and Argumentation Foundations courses (QR 101, RA 101) within their first 60 college-level credit hours at SIUE.

## BREADTH AREAS

Baccalaureate students are expected to gain a basic exposure to the liberal arts and sciences. They are expected to explore fields beyond their major interests, developing a well-rounded education that includes an appreciation of the breadth, richness, diversity and interrelation of human knowledge. Over the course of human history, human beings have created different branches of knowledge concerning themselves, others and the world. A central aspect of a university education is the exploration of these branches of knowledge. Because this diversity of knowledge has come to be organized in disciplines, SIUE's Lincoln Program develops a foundation in liberal arts and sciences through the Breadth requirement for general education. Students must take at least one course in each of these six Breadth Areas to ensure exposure to and exploration of the diverse ways that humans have organized knowledge and learned about the world, others and themselves:

■ Fine and Performing Arts (BFPA): Includes courses in Art and Design, Music, and Theater and Dance that expose students to the methods and products of human creativity;

■ Humanities (BHUM): Includes courses in English Language and Literature, Foreign Languages and Literature, Historical Studies, and Philosophy that explore and interpret various expressions of the human condition;
$\square$ Information and Communication in Society (BICS): Includes courses in Computer Science, Computer Management and Information Systems, Foreign Languages and Literature, Mass Communications, and Mathematics and Statistics that address the diversity of forms of communication in the contemporary world and the ways that communication shapes and is shaped by social institutions;
■ Life Sciences (BLS): Includes courses in Anthropology, Biological Sciences, Environmental Sciences, and Kinesiology and Health Education that explore the structures of and laws governing living organisms and related systems;
■ Physical Sciences (BPS): Includes courses in Chemistry, Geography, Mathematics and Statistics, and Physics that explore the structures of and laws governing the physical world and Universe;

■ Social Sciences (BSS): Includes courses in Anthropology, Economics, Geography, Historical Studies, Political Science, Psychology, and Sociology and Criminal Justice Studies that study human behavior and social systems.
The Breadth requirements may be fulfilled at any time during the student's career at SIUE, and students may take any level of approved coursework. Hence, students are not limited to just 100-level courses to fulfill their Breadth requirements but may instead choose a higherlevel, approved course as long as relevant prerequisites are met. Departments instructing in subjects of multiple Breadth Areas-such as Geography, Anthropology, and Historical Studies-determine which individual courses satisfy requirements in each area. Additionally, students can satisfy the Breadth requirements through courses in their major or minor areas of study, or through the New Freshman Seminar. For example, a student majoring in chemistry would automatically meet the Physical Sciences requirement through Chemistry coursework, while another student majoring in music would likewise fulfill the Fine and Performing Arts requirement. However, no more than two of the breadth requirements can be satisfied by courses from a single department.

Students may satisfy many of the Experience requirements while satisfying the Breadth requirements. In order to satisfy the Laboratory Experience requirement, students may take a laboratory course (EL-designated) in the Information and Communication in Society, Life Sciences, Physical Sciences, or Social Sciences Breadth Area. Finally, students may satisfy the United States Cultures Experience requirement, the Global Cultures Experience requirement and the Health experience requirement while taking a Breadth course.

## Interdisciplinary Studies (Is)

The Interdisciplinary Studies requirement provides students the opportunity to explore the interrelation of different branches of human knowledge. Interdisciplinary Studies courses are offered, generally, by two faculty from different departments who explore problems, questions or fields from their different disciplinary perspectives. In addition to showing connections between different disciplines and demonstrating the validity of multiple modes of human inquiry, these courses serve to reinforce and further enhance skills and abilities first introduced in the Skills courses, including analytical reading, analytic writing, and information literacy. At least one (1) upper-division interdisciplinary studies course (IS) must be taken by all students seeking baccalaureate degrees through SIUE in either their junior or senior year. Credit for this requirement cannot be transferred in from another institution of higher learning.

## Experiences

In addition to the Foundations, Breadth and Interdisciplinary Studies requirements, SIUE's Lincoln Program also ensures that all students have opportunities to engage in experiences which further foster academic, personal and professional development and refinement. These Experiences are designed to help students become more sensitive to the world so that they can become leaders in their private and professional lives. These experiences include the New Freshman Seminar, the Laboratory Experience, the United States Cultures Experience, the Global Cultures Experience, and the Health experience.

## New Freshman Seminar (NFS)

For new freshmen entering SIUE directly from high school or those transferring in with fewer than 30 credit hours, one of the early building blocks of their educations at SIUE is the New Freshman Seminar (NFS). The University requires that all new freshmen enroll in a new
freshman seminar ideally during their first term but no later than their second term. The seminar requirement may be met by any course that has been approved as a new freshman seminar and designated NFS. By introducing students to the expectations and procedures of the college learning environment as well as the unique culture of SIUE, they introduce students to the possibilities of university education. Small class size and out-of-classroom experiences help students build community, both with fellow classmates and with faculty and staff at the University. These courses are taught by faculty members who explore with students various topics of academic and civic interest. New freshman seminar courses have common goals: to assist new freshmen in making the transition to college-level work and expectations; to orient students to the services and culture of the University, and to engage students in an intellectual community of students and faculty. Resources and offices at SIUE that specifically facilitate student learning are utilized; assignments that emphasize written and oral communication and group activities are incorporated into coursework. Field trips and service learning may also be included in individual courses. The course that satisfies the new freshman seminar requirement also may be used to fulfill major, minor, elective and General Education requirements.

## Laboratory Experience (EL)

With the increasing integration of science into all aspects of contemporary life, educated citizens need to understand the methods of and interpret the products of scientific inquiry. To promote scientific literacy, all students are required to have a laboratory experience. One of the courses that students take as part of their general education program must be designated as a Laboratory course (EL). All Laboratory courses allow students to work with real-life data using evidence-based methods appropriate to various disciplines. Laboratory courses are included in the Information and Communication in Society, Life Sciences, Physical Sciences and Social Sciences Breadth Areas.

## United States Cultures Experience (EUSC)

Because the strength and uniqueness of the United States emerge from its rich, yet troubled, legacy of multiculturalism, students are required to take a course or complete an approved project or activity designated as dealing with United States Cultures (EUSC). Students choose approved courses, projects or activities from a list available on the dynamic

SIUE Undergraduate Catalog. These courses, projects or activities address the contributions, legacy and continuing dynamism of diverse peoples in the United States. An examination of issues of cultural pluralism contributes to the development of ethically sensitive people and citizens. Approved EUSC courses may be in any subject area that meets these criteria. EUSC courses can also satisfy one of the six Breadth requirements for general education or major and minor requirements. The United States Cultures course fulfills the Illinois state-mandated Intergroup Relations requirement, addressing issues of pluralism within this country. The State of Illinois requires that public institutions of higher education include in the general education requirements for obtaining a degree, course work on improving relations to include race, ethnicity, gender and other issues related to improving human relations to address racism and sexual harassment on their campuses' (Section 9.21 of the Board of Higher Education Act).

## Global Cultures Experience (EGC)

In order to gain an appreciation and understanding of human diversity in a dense, globally interconnected world, all students are required to take a course or complete an approved project or activity designated as focusing on Global Cultures that deals with nonU.S. groups (EGC). Students choose approved courses, projects or activities from a list available on the dynamic SIUE Undergraduate Catalog. An examination of the diversity and richness of human cultures across the world contributes to the development of ethically sensitive peoples and citizens. EGC courses may be in any subject area that meets these criteria. EGC courses can also satisfy one of the six Breadth requirements for general education or major and minor requirements.

## Health Experience (EH)

To promote mental and physical well-being, all students must complete a course or complete an approved project or activity associated with promoting good health. Designated courses (EH) that address the health experience can satisfy this requirement. Students may also complete the health experience by participating in approved non-credit activities. An approved list of such activities is available on the SIUE dynamic Undergraduate Catalog.

## Senior Assignment

The Senior Assignment represents the culmination of the entire undergraduate experience at SIUE and should integrate the
best aspects of each student's baccalaureate education. All seniors are required to complete the Senior Assignment that demonstrates breadth commensurate with SIUE's general education expectations and proficiency in the academic major. This requirement arises from the University's belief that the ability to integrate a general education perspective into one's academic discipline is an essential mark of a University-educated person. The Senior Assignment fosters creativity and self-reliance by encouraging each student to complete and reflect upon a meaningful project for the major. As such, the Senior Assignment represents a major commitment by the SIUE faculty to undergraduate learning. Each academic major has its own senior assignment and, therefore, an individual assignment may involve, for example, library inquiry, laboratory experiments, field inquiry, or artistic creativity. Therefore, a given Senior Assignment may culminate in an artistic performance, public speech, written thesis, gallery presentation, or a combination of these with other forms of expression. Individual Senior Assignments differ, but they share a challenge to each SIUE student to achieve individual academic excellence. This is what distinguishes baccalaureate education at SIUE.

## Summary Of University-wide Baccalaureate Requirements

The total number of General Education courses required of students depends on the number of courses that a student takes that satisfy multiple requirements. The Lincoln Program can be completed with between 12 and 17 courses. Taking courses that satisfy multiple requirements helps reach the lower part of that range.
Descriptions of the Foundations, Breadth Areas, Interdisciplinary Studies, United States Cultures, Global Cultures, Lab and Health courses appear in the course description section of the catalog.

| Requirement <br> Foundations <br> Written Expression I | Fulfilled By <br> English 101 (to be completed <br> within the first 30 college- <br> level credit hours at SIUE) |
| :---: | :---: |
| Written Expression II | English 102 (to be completed <br> within the first 45 college- <br> level credit hours at SIUE) |
| Grades of Cor better must be earned in both ENG 101 and 102 courses. |  |

Oral Expression
Applied Communication Studies 101 or 103 to be completed within the first 30 college-level credit hours at SIUE)

Logic/Critical Thinking Reasoning and Argumentation 101, IE 106 or PHIL 213
(to be completed within the first 60 college-level credit hours at SIUE)
Quantitative Literacy
Quantitative Reasoning 101 or Mathematics 150 (to be completed within the first 60 college-level credit hours at SIUE)

## Breadth

Fine \& Performing Arts Course designated BFPA
Humanities Course designated BHUM
Information \&
Communication
in Society Course designated BICS
Life Sciences Course designated BLS
Physical Sciences Course designated BPS
Social Sciences Course designated as BSS
Interdisciplinary Studies (Is)
Course With The Prefix Is

Experiences
New Freshman Seminar Course designated FRSM (For new freshmen)

Laboratory Experience Course designated EL United States Cultures
Experience
Course or approved project or activity designated EUSC

Global Cultures Experience Course or approved project or activity designated EGC

Health Experience
Course or approved project or activity designated EH
Senior Assignment Requirements established by individual departments or programs

## University-wide Criteria for the Bachelor of Arts (BA) and Bachelor of Science (BS) Degrees

To accommodate the diversity of knowledge, the diverse interests of students, and the needs of an increasingly technical society, the University offers the Bachelor of Arts (BA), the Bachelor of Science (BS), the Bachelor of Liberal Studies (BLS) and professional baccalaureate degrees. The Lincoln Program supports baccalaureate education at SIUE by playing a foundational role in imparting the abilities and knowledge that define the common core of all of these degrees. University-wide criteria mandate the manner in which departments and programs inflect
the broad content of these respective degrees in order to assure that they are equivalent and meaningfully differentiated degrees. The University requires students earning a:

- B.A. degree to complete at least eight (8) courses in the fine and performing arts and humanities, including, as part of those eight courses, a two (2) semester sequence of a foreign language;
$\square$ B.S. degree to complete at least eight (8) courses in the sciences (life, physical or social), including, as part of those eight courses, two (2) courses designated as labs (EL);
- BLS degree to complete requirements defined by the Liberal Studies program;
■ Professional baccalaureate degrees to complete requirements defined by professional program.


## Proficiency examinations for General Education Credit

Proficiency examinations are available for all Foundations courses in the general education curriculum. Students who successfully pass a proficiency examination for a course have fulfilled that Foundations requirement. Credit hours earned from successful completion of a proficiency examination in a Foundations course will contribute toward general education hours earned toward the baccalaureate degree.
Proficiency examinations may also be available for the Breadth and Cultures (EUSC and EGC) requirements in the general education curriculum. Some of these tests are administered by the Instructional Services Testing Office or by individual departments. Students interested in taking a proficiency examination should contact Instructional Services in Peck Hall, Room 1404 (618-650-2295) or the department involved. A list of proficiency examinations offered to students may be found at www.siue. edu/IS/TEST/Proficiency. Students who pass an SIUE departmentally administered proficiency examination, or receive a departmentally recognized AP score, may receive credit for the Breadth course and Cultures course as well as credit that counts toward the 120 hours required for graduation.
Proficiency examinations are not available for New Freshman Seminar or Interdisciplinary Studies courses.
Students are allowed to meet a total of five general education requirements through course
equivalency credit via proficiency examinations. This equivalency credit is allowed in the
Foundations, Breadth and Cultures areas, or any combination of these.

## Re-entering Students

Former students who have not attended SIUE for three or more terms, including summer, must apply for readmission. Re-entering students who have not attended in seven years are advised that they may not graduate under the general education major or minor requirements published in a catalog more than seven years old without the written permission of the dean of the school/college in which the student's major is housed. Such written permission shall be submitted to the Office of the Registrar with the application for graduation. Academic work for students who re-enter the University after a seven-year period will be re-evaluated according to the current catalog. Once students have been readmitted to the University, they will be instructed to make an appointment with an advisor to determine the most efficient means of completing degree requirements.

## Transferring Students

Transfer students may satisfy SIUE's General Education Program by:
1.) (a) satisfying the Illinois Articulation Initiative (IAI) General Education Core Curriculum (via an Associate of Arts, Associate of Science, or Associate of Science and Arts from a participating IAI institution or by a transcript statement indicating IAI General Education Core met), and;
(b) completing an Interdisciplinary Studies course, OR
2.) fulfilling all requirements of SIUE's Lincoln Program.

Note well: Students must satisfy the Written Expression Foundations requirements (English 101 and 102) with grades of C or better. Finally, no credit will be accepted for remedial or developmental courses or for any course work completed at unaccredited institutions.

## Transcript Evaluations

Appropriately qualified personnel at the University will perform an evaluation of transfer credit to determine completion of the General Education requirements of the University. Students are entitled to a full explanation of the evaluations they receive.

Transcript evaluations will be completed for course work earned at regionally accredited institutions. A course-by-course evaluation of transfer credit determining equivalency and/or general education requirements is provided to all freshman/transfer students upon admission, and to returning/continuing students upon receipt of official transcripts. Students seeking a second bachelor's degree do not receive an evaluation.
Questions relating to the transfer credit evaluation should be directed to the Transfer Center, Rendleman Hall, room 1218, (618) 650-2133, or email at transfercredit@siue.edu. Questions relating to how a course may transfer to SIUE should be directed to an admission counselor, Rendleman Hall, room 2120 (618) 650-3705.

## Course Numbering and Attribute System

The course numbering and attribute system identifies those courses appropriate for meeting the Breadth, Interdisciplinary Studies and Experience requirements. The Foundations requirements are each met by discrete courses. It also helps students select courses appropriate for their class level.

| Prefix/ <br> Designation/ <br> Attribute |  |
| :---: | :---: |
|  |  |
|  | Requirement |
| BFPA | Fine and Performing Arts Breadth requirement |
| BHUM | Humanities Breadth requirement |
| BICS | Information and Communication in Society Breadth requirement |
| BLS | Life Sciences Breadth requirement |
| BPS | Physical Sciences Breadth requirement |
| BSS | Social Sciences Breadth requirement |
| IS | Interdisciplinary Studies upperdivision course requirement |
| FRSM | New Freshman Seminar requirement |
| EL | Laboratory Experience requirement |
| EUSC | United States Cultures Experience requirement |
| EGC | Global Cultures Experience requirement |
| EH | Health Experience requirement |

In general, the first digit of a course number identifies the class level (freshman, sophomore, junior, or senior) appropriate for enrollment in the course. The following is a guide for the SIUE course numbering system:
000-099: Courses that do not carry credit toward graduation.
100-200: Courses most appropriate for freshmen and sophomores. Courses typically assume little or no previous exposure to specific subject matter beyond the secondary-level; focus on incorporating and recalling basic information and developing basic understanding of connection between terms and concepts; begin to develop the capacity to integrate skills, terms and concepts throughout the course and from other introductory courses.
300-400: Courses most appropriate for juniors and seniors. Courses typically assume familiarity with basic terms, concepts, techniques and approaches of the discipline; focus on development of specialized terms, concepts, techniques and approaches with more narrowly defined topics; develop students capacities to integrate across multiple topics to be able to recognize deeper, possibly predictive patterns; students willing to create products with limited guidance from instructor and to pose novel questions that may not have ready answers.
500: Graduate courses not accepted for application to a Bachelor's degree.

## Illinois Articulation Initiative

The purpose of the Illinois Articulation Initiative (IAI) is to identify common curriculum requirements across associate and baccalaureate degrees and across institutions in order to facilitate student transfer. The Illinois Transferable General Education Core Curriculum identifies the common general education course work. SIUE is a participant in the Illinois Articulation Initiative. Completion of the general education core curriculum at any participating college or university in Illinois assures transferring students that lower-division general education requirements for a bachelor's degree have been satisfied. This agreement applies to students transferring to SIUE during or after summer 1998.

For more information, contact the Transfer Center at (618) 650-2133 or e-mail us at transfercredit@siue.edu. Additional information is available on the IAI Website, itransfer.org.

## Illinois Articulation Initiative

## General Education Core Requirements

## Communication

3 courses ( 9 semester credits), including a two-course sequence in writing ( 6 semester credits, C grade required) and one course in oral communication (3 semester credits)

## Mathematics

1 to 2 courses ( 3 to 6 semester credits)

## Physical and Life Sciences

2 courses ( 7 to 8 semester credits), with one course selected from the life sciences and one course from the physical sciences and including at least one laboratory course

## Humanities and Fine Arts

3 courses ( 9 semester credits) with at least one course selected from humanities and at least one course from the fine arts

## Social and Behavioral Sciences

3 courses ( 9 semester credits), with courses selected from at least two disciplines

Total: 12 to 13 courses ( 37 to 41 semester credits)

## Assessment and the Senior Assignment


#### Abstract

Assessment The purpose of assessment of undergraduate education is to help the University determine the extent to which it is fulfilling its mission of educating undergraduate students. Assessment allows the University to improve its program structure, course content, and pedagogy. It also assists in advisement and placement, and provides students with indicators of their performance. Finally, assessment monitors the competence of graduating students, not just in terms of disciplinary expertise, but also with respect to the attainment of a general education. Much of assessment is embedded within the teaching function of the university and, ideally, occurs alongside each student's regular academic effort.


## The Senior Assignment

All seniors are required to complete a capstone experience called Senior Assignment (SRA). SRA demonstrates breadth commensurate with SIUE's general education expectations and proficiency in the academic major. The SIUE Senior Assignment (SRA) optimizes assessment that recognizes the importance of open-ended, holistic, problembased assessment that requires critical thinking. This requirement arises from the University's belief that the ability to integrate a general education perspective into one's academic discipline is an essential mark of a universityeducated person.
The SRA is the hallmark of a baccalaureate education at SIUE. It serves as a demonstrable connection between the student's major area of study and the general education skills and competencies. Each department or program has ownership over its Senior Assignments, thus the faculty has been given the autonomy to construct the SRA to assess the unique capabilities of their graduates as well as overall program effectiveness and the degree of interdisciplinary competence among graduates. Due to the diversity in programs, Senior Assignment may culminate in an artistic performance, public speech, written thesis, gallery presentation, or a combination of these with other forms of expression. Individual Senior Assignments differ, but they share a challenge to each SIUE student to achieve individual academic excellence. This is what distinguishes baccalaureate education at SIUE.

COLLEGE OF
ARTS \& SCIENCES

## College of Arts and Sciences

The College of Arts and Sciences is committed to the traditional academic pursuits of instruction, scholarship, and public service as a means of realizing, in close cooperation with other units, the mission and goals of Southern Illinois University Edwardsville. Consistent with the mission of the university, the college assigns first priority to excellence in undergraduate education. To this end, the college fosters the development of the following characteristics and capabilities of its graduates:
Communication: Organize and express ideas clearly and appropriately; master standard use of written and oral communication; appreciate alternative forms of expression, including art, dance, music and literature; distinguish between the medium and the message; listen, observe, interpret, and understand others.
Critical Thinking: Employ independent, objective, and rigorous reasoning; identify and integrate the elements of a task or problem; seek, organize, assimilate, synthesize, and use information; maintain a healthy skepticism; recognize the value of creativity, the limits of reason and the legitimacy of intuition.

Problem Framing and Solving: Appreciate the complexity of problems, go beyond conventional assumptions, understand parts of systems as well as the whole, recognize patterns and generalize, search and test solutions using analytical and intuitive skills, evaluate and monitor outcomes, work effectively and creatively in diverse groups.

Knowledge: Master basic facts, concepts, and literature of the arts and sciences; acquire knowledge of diverse ethical traditions and contemporary issues; develop competence in the use of technology, instrumentation, and research methods; develop expertise in a major; understand the evolution and trends of that major; acquire knowledge of career opportunities.

## Integration and Application of Knowledge:

 Recognize and value the interconnectedness of knowledge; learn creatively from practice and experience; apply knowledge in innovative ways; appreciate, use, and promote multidisciplinary and culturally diverse perspectives; foster connections wherein knowledge serves as a bridge to new levels of understanding and insight.Self Development: Assess personal strengths, weaknesses, and potential; develop individual goals and persevere to achieve them; build self confidence and motivation; identify and respect diverse backgrounds and viewpoints; deal
effectively with change; recognize and tolerate ambiguity; develop a well-considered personal ethic that includes responsibility for actions; assume responsibility for decisions and their results.

Citizenship: Participate in the local, national, and global community; be sensitive to the welfare of others; appreciate democratic values; acquire a sense of personal and collective responsibility for the social and natural environment.

Life-Long Learning: Maintain a sense of curiosity, appreciate and master the process of learning, recognize that learning is a means of fulfillment and success in one's personal and professional life.
The College of Arts and Sciences includes the departments of Anthropology, Applied Communication Studies, Art and Design, Biological Sciences, Chemistry, English Language and Literature, Foreign Languages and Literature, Geography, Historical Studies, Mass Communications, Mathematics and Statistics, Music, Philosophy, Physics, Political Science, Public Administration and Policy Analysis, Social Work, Sociology and Criminal Justice Studies, and Theater and Dance.

The College also offers degrees in economics, environmental sciences, and liberal studies and interdisciplinary minors in African Studies, Asian Studies, Black Studies, Classical Studies, Environmental Sciences, European Studies, Forensic Sciences, Latin American Studies, Native American Studies, Peace and International Studies, Pre-Law, Religious Studies, Urban Studies, and Women's Studies.

Each department provides one or more programs of specialization, which are described in detail in the following pages. Undergraduate programs are designed to provide a strong basic foundation in the chosen field and to serve as a preparation for many different careers and professional activities, as well as for graduate study. Departments within the College offer a variety of master's degree programs. The College is responsible for a large majority of the general education program; undergraduate courses in the College provide a general liberal arts education appropriate to all students. Faculty are active in basic and applied research and in professional service to the University and to the community. We invite you to learn more about the College and the academic opportunities we provide at siue.edu/artsandsciences/

## Anthropology

Peck Hall, Room 0212
siue.edu/artsandsciences/anthropology/

## Professors

Holt, Julie Zimmermann, Ph.D., 2000, New York University

## Associate Professors

Cairo, Aminata, Ph.D., 2007, University of Kentucky Lutz, Nancy, Ph.D., 1986, University of California-Berkeley
Rehg, Jennifer (Chair), Ph.D., 2003, University of Illinois at Urbana-Champaign
Willmott, Cory, Ph.D., 2001, McMaster University

## Program Description

Anthropologists study human populations across time and space. Anthropology develops knowledge of and respect for the biological and cultural diversity of humankind through the combined fields of biological anthropology, cultural anthropology, linguistic anthropology, and archaeology.

The program emphasizes applied areas of anthropology and offers courses relating to cultural heritage and the arts, community engagement, sustainability, and globalization. Special faculty interests include ethnohistory, political anthropology, religion, medical anthropology, language, material culture, visual culture, Illinois prehistory, zooarchaeology, primate behavior and ecology. Distinctive features of the program include opportunities for supervised archaeological and ethnographic fieldwork, experience in cultural resources management, training in museum work in conjunction with the Ethnology Museum Laboratory, field trips and involvement in community projects, and participation by qualified majors in the Alpha Chapter of Illinois of Lambda Alpha, the National Collegiate Honors Society for Anthropology. The Anthropology Department administers interdisciplinary minors in Asian Studies, Forensic Sciences, and Native American Studies, and participates in Black Studies, Women's Studies, Latin American Studies, Museum Studies, Religious Studies, Urban Studies.

## Career Opportunities

Undergraduate anthropology majors find employment in secondary education,
private business and industry, cultural resource management, contract archaeology, environmental studies, museums, health and human services, nongovernmental organizations, and legal and government agencies. Anthropology majors may pursue graduate degrees at both the masters and doctoral level; such degrees lead to careers in university-level teaching, basic and applied research, or museum affiliated work. Because of the diversity of subjects and methods in anthropology, students frequently combine anthropology with other disciplines such as history, sociology, geography, earth science, biology, psychology, medicine, law, and the arts. Such combinations enable students to understand complex community problems and many issues of contemporary life and to expand their opportunities for rewarding careers.

## Degree Programs

Bachelor of Arts, Anthropology
Bachelor of Science, Anthropology
The bachelor of arts and bachelor of science degrees are based on a common core set of courses. In addition, the bachelor of arts degree requires 8 hours of a foreign language, and the bachelor of science degree requires 6 hours in field school courses: Anthropology 473, 474, or 475. Field school courses are offered only during the Summer Session.

Students seeking a bachelor of arts or bachelor of science degree in anthropology must either select a minor in another discipline or design an interdisciplinary concentration. A concentration consists of 18 credits in one or more disciplines related to a subfield of anthropology. The courses will be selected by the student in consultation with an anthropology faculty mentor. Anthropology courses can be included in the concentration, but the same courses cannot be counted toward both the anthropology major requirements and the concentration. A second major serves the same purpose in lieu of a minor or concentration.

## Program Overview and General Department Information

Students in good standing wishing to apply for a major or minor are encouraged to consult with the Anthropology Department. Students may declare their major or minor through the Office of Academic Counseling and Advising or College of Arts and Sciences Advising. Pre-registration advisement with an Anthropology Department mentor is highly advised for all declared majors.

## Admission

Students wishing to declare a major must satisfy the following requirements:
■ Complete all Academic Development courses required by the University.

■ Complete any required courses to address high school deficiencies.

■ Achieve a cumulative grade point average of at least 2.0 in courses completed at SIUE.

## Retention

Students must maintain a cumulative grade point average of at least 2.0 to remain in good academic standing. Students whose cumulative grade point average falls below 2.0 will be placed on academic probation, returned to undeclared status and limited to a maximum of 12 hours of enrollment per term.

## Transfer

Coursework completed at regionally accredited institutions will be evaluated upon admission to the University. Results of transfer credit evaluations are available to students through

CougarNet. For more information regarding transfer, please visit siue.edu/transfer.

## Major Requirements

$\begin{array}{llll}\text { ANTH 111a } & \text { ANTH 111b } & \text { ANTH } 300 & \text { ANTH } 301 \\ \text { ANTH } 325 & \text { ANTH } 360 \mathrm{a} b \mathrm{~b} & \text { ANTH } 490 & \end{array}$
Archaeology and Biological Anthropology - Select one course
ANTH 332 ANTH 333 ANTH 334 ANTH 335
ANTH336 ANTH365 ANTH366 ANTH367
ANTH 369 ANTH430 ANTH432 ANTH469
Cultural and Linguistic Anthropology - Select one course
ANTH 303 ANTH 304 ANTH305 ANTH 306
ANTH 307 ANTH311 ANTH312 ANTH350
ANTH352 ANTH359 ANTH404 ANTH408
ANTH410 ANTH420 ANTH435
Anthropology Electives - 9 Hours

## General Education Requirements for the Major

University general education requirements are outlined in the General Education section of this catalog and included in the sample curriculum outline.

## Sample Curriculum for the Bachelor of Arts in Anthropology

Fall Semester
Year 1
ANTH 111B - Human Culture and Communication (BSS, EGC, EUSC) ..... 3
ENG 101 - Composition ..... 3
Foreign Language 101 (BICS) ..... 4
QR 101, MATH 150 or Higher ..... 3
Fine \& Performing Arts (BFPA) ..... 3
Total ..... 16
Year 2
ANTH Elective (biological or archaeological) ..... 3
Physical Science (BPS). ..... 3
Humanities (BHUM) ..... 3
Elective/Minor (FPA or HUM) ..... 3
Elective/Minor ..... 3
Total ..... 15
Year 3
ANTH 300 - Ethnographic Fieldwork. ..... 3
ANTH 301 - Ethnographic Analysis ..... 3
Interdisciplinary Studies (IS) ..... 3
Elective/Minor .....  3
Elective/Minor ..... 3
Total ..... 15
Year 4
ANTH 490 - Senior Assignment ..... 1
ANTH 483 - Individualized Study ..... 2
Elective/Minor (FPA or HUM) ..... 3
Elective/Minor ..... 3
Elective /Minor ..... 3
Total ..... 12
Spring Semester
Year 1
ANTH 111A - Human Ancestry and Adaptation (BLS) ..... 3
ENG 102 - Composition .....  3
Foreign Language 102 ..... 4
RA 101 - Reasoning \& Argumentation ..... 3
ACS 101 or 103-Oral Expression ..... 3
Total ..... 16
Year 2
ANTH Elective (cultural or linguistic) (FPA or HUM) ..... 3
Elective/Minor (FPA or HUM) .....  3
Elective/Minor (FPA or HUM). ..... 3
Experience - Health (EH) ..... 3
Elective/Minor ..... 3
Total ..... 15
Year 3
ANTH 360a - Biological Method \& Theory ..... 3
ANTH 360b - Biological Lab (EL) ..... 1
ANTH 325 - Archaeological Method \& Theory ..... 3
Elective/Minor ..... 3
Elective/Minor ..... 3
Elective/Minor ..... 3
Total ..... 16
Year 4
ANTH Elective/ANTH491 - Elective/Senior Project. .....  3
ANTH Elective ..... 3
ANTH Elective. .....  3
Elective/Minor ..... 3
Elective/Minor ..... 3
Total ..... 15

## Sample Curriculum for the Bachelor of Science in Anthropology

Fall Semester
Year 1
ANTH 111B - Human Culture and Communication (BSS, EGC, EUSC) ..... 3
ENG 101 -Composition ..... 3
ACS 101 or 103-Oral Expression ..... 3
Humanities (BHUM) ..... 3
Experience - Health (EH) ..... 3
Total ..... 15
Year 2 Year 2
Fine \& Performing Arts (BFPA) .....  3
Info \& Communication in Society (BICS) ..... 3
ANTH Elective (biological or archaeological) ..... 3
Elective/Minor ..... 3
Elective/Minor ..... 3
Total ..... 15Spring Semester

Spring Semester
Year 1
ANTH 111A - Human Ancestry and Adaptation (BLS) ..... 3
ENG 102 - Composition ..... 3
RA 101 - Reasoning \& Argumentation ..... 3
QR 101, MATH 150 or Higher ..... 3
Physical Science (BPS) ..... 3
Total ..... 15
ANTH Elective (cultural or linguistic) ..... 3
Elective/Minor ..... 3
Elective/Minor ..... 3
Elective/Minor ..... 3
Elective/Minor ..... 3
Total ..... 15
ANTH 473 or 474 or 475 - Field School ..... 6
Total ..... 6
Year 3 Year 3
ANTH 300 - Ethnographic Fieldwork ..... 3
ANTH 360a - Biological Method \& Theory. ..... 3
ANTH 301 - Ethnographic Analysis (EL) ..... 3
Interdisciplinary Studies (IS) ..... 3
Elective/Minor ..... 3
Elective /Minor ..... 3
Total ..... 15
ANTH 360b - Biological Lab ..... 1
ANTH 325 - Archaeological Method \& Theory ..... 3
Elective/Minor ..... 3
Elective/Minor ..... 3
Total ..... 13
Year 4
ANTH 490 - Senior Assignment
Year 4
ANTH Elective/ANTH491 - Elective/Senior Project ..... 3
ANTH 483 - Individualized Study 2 ANTH Elective ..... 3
Elective/Minor ..... 3
ANTH Elective ..... 3
Elective/Minor ..... 3
Elective/Minor ..... 3
Total ..... 12
Elective/Minor ..... 2
Elective/Minor ..... 3
Total ..... 14

## Minor Requirements

A minor in anthropology consists of 18 hours. Twelve of these hours must be in 300/400 level courses. Students are required to take an introductory anthropology course (111a or 111b). The remaining hours consist of anthropology electives. Minors are encouraged to consult with the Anthropology Department on course selection.

## Graduation Requirements

- Complete all specific program requirements.
- Complete all University requirements including:
- All general education requirements
- A minimum of 120 credit hours
- At least 30 of which must be completed at SIUE
- At least 60 of which must be completed at a regionally accredited 4-year institution
- A minimum cumulative grade point average of 2.0
- An average of 2.0 in all anthropology courses.

■ Bachelor of Arts only: one year of the same foreign language.
■ Bachelor of Science only: 6 credits of field school.

- File an Application for Graduation by the first day of the term in which you plan to graduate.


## Applied Communication Studies

Alumni Hall, Room 3108
siue.edu/artsandsciences/acs

## Associate Professors

Alexander, Alicia, Ph.D., 2004, University of Texas at Austin
Blankson, Isaac (Chair); Ph.D., 2000, Ohio University
Cheah, Wai Hsien, Ph.D., 2004, University of Kentucky
Liu, Min, Ph.D., 2006, North Dakota State University
Wrobbel, Duff, Ph.D., 1994, University of Texas at Austin
Zamanou-Erickson, Sonia, Ph.D., 1988, University of Oregon

## Assistant Professors

Brown, Jocelyn DeGroot, Ph.D., 2009, Ohio University
Nastasia, Sorin, Ph.D., 2010, University of North Dakota
Schaefer, Zachary, Ph.D., 2010, Texas A\&M University
VanSlette, Sarah, Ph.D., 2006, Purdue University

## Instructors

Bumpers, Komie, M.A., 2000, Southern Illinois University Edwardsville Fussell, Renee, M.A., 1991, Southern Illinois University Edwardsville Hayes, Diane, M.A., 2006, Southern Illinois University Edwardsville Howard, Stacey, M.A., 2009, Southern Illinois University Edwardsville Thornton, Tara, M.A., 2000, Southern Illinois University Edwardsville

## Program Description

The study of communication involves the development of theories and research tools to analyze, explain, and improve human interaction. Departmental courses focus on two-person interaction, small-group decision making, communication patterns in organizations and other complex systems, public relations, and speaker-audience interaction in public speaking.

The Applied Communication Department encourages students to work closely with faculty in advising, teaching, research projects, and informal interactions. Applied Communication Studies majors and minors receive their formal academic
advisement from the College of Arts and Sciences Undergraduate Advising. Students are encouraged to seek mentoring from a faculty member in the department. For more information, please contact the Applied Communication Studies Department at (618) 650-3090.

## Career Opportunities

In America, employers increasingly recognize the need for more effective communication. As a result, job opportunities for graduates trained in speech communication are prevalent in business and industry, government agencies, educational systems, non-profit organizations, and community-based resource centers. Graduates often have several career choices. Examples of communication careers some departmental graduates have entered are: teaching and administration; management, training and consulting in organizations; public relations; human relations and employee assistance programs; sales; and government service. Career opportunities in communication are expanding for women and minorities.
The department is committed to helping undergraduate majors identify jobs and work environments for which they are best suited; the department also helps them select internships, minors, and elective courses to complement the Applied Communication Studies major. To focus their academic programs most effectively, students also are required to select and follow the academic track most appropriate for their individual career goals.

## Applied Communication Studies Tracks

## Corporate and Organizational Communication Track

Students who choose the corporate and organizational communication track focus on communication within the context of businesses and other organizations. Effective communication in organizations is necessary both for the attainment of organizational goals and for individual productivity and satisfaction. This track is designed for those who will work in organizational settings and who want to become more effective in their interactions with others for a more successful and fulfilling work life. This knowledge is especially important now that the "world of work" is undergoing such rapid change. In addition to learning, understanding, and applying organizational theories and research, students will develop important organizational skills such as conflict
management, decision making, goal setting and team building. Students completing this track will be prepared for careers in a wide variety of organizational settings and roles (sales, management, human resources and training), as well as for graduate study in communication or business.

## Interpersonal Communication Track

Students in the interpersonal communication track are generally attracted to it for the solid preparation it provides for graduate school. This track provides students with a thorough theoretical and practical understanding of the ways in which verbal and nonverbal communication are used in defining, negotiating, and modifying relationships. This track also increases students' awareness both of the many types of, and the myriad influences on, interpersonal relationships. A thorough, systematic examination of relevant theory and research regarding interpersonal communication is provided. Students who select this track as pregraduate study preparation will find themselves with an excellent foundation upon which to begin careers in the academic community, such as professor, researcher, or administrator. Those choosing this track also will be well prepared for positions in the business sector such as recruiters and trainers.

## Public Relations Track

Students in the public relations track will study under a model program, designed to meet and exceed national guidelines for undergraduate public relations education described in Public Relations Education for the 21st Century: A Port of Entry, sponsored by the Commission on Public Relations Education. This track stresses written, oral, graphic, and technological applications of communication skills. Elements of the program are designed to keep entry-level students in touch with upper-division students, and past graduates in touch with all students. In addition, students will experience the "paired course" concept, an idea that helps students integrate materials across their sequence of study. And finally, students may join SIUE's award-winning chapter of the Public Relations Student Society of America, which is affiliated with the national professional association, Public Relations Society of America.

## Degree Programs

Bachelor of Arts, Applied Communication Studies
Bachelor of Science, Applied Communication Studies

## Program Overview and General Department Information

## Admission

To be admitted to the bachelor of science or bachelor of arts program, students must:

- Complete ACS 101, Public Speaking (or equivalent) with a grade of C or better
- Complete ACS 103, Interpersonal Communication Skills (or equivalent) with a grade of C or better
- Attain a cumulative grade point average of at least 2.0 (on a 4.0 scale).


## Retention

Students must maintain a cumulative grade point average of at least 2.0 to remain in good academic standing. Students whose cumulative grade point average falls below 2.0 will be placed on academic probation, returned to undeclared status and limited to a maximum of 12 hours of enrollment per term.

## Transfer

Students who choose to take one or more classes at another institution and apply that credit to an SIUE degree should obtain prior approval for the course from the appropriate academic advisor to make sure the course is acceptable for program credit.

* Applied Communication Studies Majors: a maximum of 18 semester hours of transferred Applied Communication Studies course work could be applied to 36 hour program
* Speech Minors: a maximum of 9 semester hours of transferred Applied Communication Studies courses work could be applied to 18-21 hour program


## General Education Requirements

University general education requirements are outlined in the General Education section of this catalog.

## Major Requirements

The sample curriculum outline highlights Applied Communication Studies courses only and assumes General Education courses have been completed prior to the student's declaration of a major. All Applied Communication Studies
majors are required to choose a minor course of study and complete ACS 200, 329, 330, 409 or 424 or 415 (depending on track), in addition to the track requirements identified below:

## Track Option: Corporate and Organizational Communication Track

Required Courses: ACS 203, 300, 303, 304, 403, plus three elective courses
Recommended electives: ACS 201, 210, 213, 311, 323, 331, 370, 430, 434, 491

## Track Option: Interpersonal Communication Track

Required Courses: ACS 201, 323, 421, 422, 434, plus three elective courses

Recommended electives: ACS 203, 210, 305, 311, 331, 423, 430, 433

## Track Option: Public Relations Track

Required Courses: ACS 213, 312, 313, 315, 413, 414, 415 plus two elective courses
Recommended electives: ACS 201, 210, 300, 304, 311, 331, 430, 431, 432, 434, 491

Notes

- ACS 111 does not count for major credit.
- ACS 309, ACS 419, ACS 491: no more than 3 credit hours, per course, may be counted toward 36-hour major.


## Sample Curriculum for the Bachelor of Science in Applied Communication Studies

Fall Semester
Year 1
ACS 101 - Public Speaking ..... 3
ENG 101 - Composition ..... 3
RA 101 - Reasoning \& Argumentation. ..... 3
Fine \& Performing Arts Breadth (BFPA) ..... 3
Humanities Breadth (BHUM) ..... 3
Total ..... 15
Year 2
ACS 200 (BICS), ACS 201 (BSS), ACS 203, or ACS 213 (BICS) . 3
ACS Track Requirement (or recommended ACS elective) ..... 3
Physical Science (BPS) ..... 3
Health Experience (EH) ..... 3
Life Physical or Social Science with a lab (EL) ..... 3
Total ..... 15
Year 3
ACS 329 (BSS) or ACS 330 (BSS) ..... 3
ACS Track Requirement (or recommended ACS elective) ..... 3
ACS Track Requirement (or recommended ACS elective) ..... 3
Interdisciplinary Studies (IS) ..... 3
Minor. ..... 3
Total ..... 15
Year 4
ACS Track Requirement (or recommended ACS elective) ..... 3
Life, Physical or Social Science ..... 3
Elective. ..... 3
Elective ..... 3
Minor. ..... 3
Minor. ..... 3
Total ..... 18
Spring Semester
Year 1
ACS 103-Interpersonal Communication (EUSC/BICS) . . . . . . . 3
ENG 102 - Composition ..... 3
QR 101, MATH 150 or Higher ..... 3
Elective. ..... 3
Life Science Breadth (BLS) ..... 3
Total ..... 15
Year 2
ACS 200 (BICS), ACS 201 (BSS), ACS 203, or ACS 213 (BICS) . 3
ACS Track Requirement (or recommended SPC elective) ..... 3
Life, Physical or Social Science with a lab (EL) ..... 3
Life, Physical, Social Science or Global Cultures ..... 3
Elective ..... 3
Year 3
ACS 329 (BSS) or ACS 330 (BSS) ..... 3
ACS Track Requirement (or recommended ACS elective) .....  3
ACS Track Requirement (or recommended ACS elective) .....  3
Minor. ..... 3
Minor ..... 3
Total ..... 15
Year 4
Senior Project: ACS 409 (Org. Com) or 424 (Interpersonal Comm) or ACS 414/415 - Public Relations Campaigns: Programming \& Implementation. ..... 3-6
Elective . .....  3
Elective ..... 3
Elective/Minor .....  3
Minor. ..... 3
Total ..... 15-18

Capstone Course (Senior Project): Students in the Public Relations track must complete ACS 415; Students in the Organizational Communication track must complete ACS 409, and students in the Interpersonal Communication track must complete ACS 424.

Applied Communication Studies Tracks and Applied Communication Studies Recommended Electives (choose one track) to total 24 hours:

- Interpersonal Communication track (see required and recommended electives above)
- Interpersonal Communication track (see required and recommended electives above)
- Public Relations track (see required and recommended electives above)

Students wishing to obtain a Bachelor of Arts degree must take two semesters of the same foreign language as well as 4 additional courses in fine and performing arts or humanities.

## Minor in Speech Communication

## Admission

To be accepted as a minor in speech communication a student must attain a cumulative grade point average of at least 2.0 (on a 4.0 scale).

## Requirements

Speech Communication Minor

- complete 18 semester hours of Applied Communication Studies courses (not including courses restricted to majors only) as follows:
- ACS 103
- ACS 203
- ACS 213
- Any two courses at the 300 level

■ Any one course at the 400 level
■ have a GPA of 2.0 or above for coursework completed at SIUE

■ earn at least 9 semester hours at SIUE
Note: Students should consult with their CAS academic advisor (618) 650-5525 or the Applied Communication Studies director of undergraduate studies, (618) 650-3090, if help is needed in identifying courses that best meet the students' academic and career interests.

## Speech Communication Education Minor

■ available to Language Arts Teacher Certification (K-12) students only (must apply through the Department of English Language and Literature)

- complete 18 semester hours of speech communication courses identified below:
- ACS 103
- ACS 261
- ACS 461

■ One course at the 200 level from the following: ACS 200, 201, 204, 210

■ Any two courses at the 300 or 400 level from the following: ACS 304, 305, 311, 419, 421, 423, 430, 433, 434.
$\square$ at least 9 semester hours must be earned at SIUE
■ courses may also be used to fulfill general education requirements
$\square$ must maintain a minimum major and minor GPA of 3.0

■ must pass the Department of English Language and Literature screening to be eligible for student teaching

- must gain advisement for professional education courses through the School Education Student Services


## Graduation Requirements for Bachelor of Science in Applied Communication Studies

- complete all general education and specific program/track requirements

■ complete all requirements for academic minor

- receive a C or higher in ACS 329 and ACS 330

■ have a GPA of 2.0 or above for coursework completed at SIUE

- file an Application for Graduation by the first day of the term in which you plan to graduate


## Graduation Requirements for Bachelor of Arts in Applied Communication Studies

- 8 hours of the same foreign language as well as 4 courses in fine and performing arts in lieu of 4 life, physical or social science courses. Refer to the General Education section of the catalog for specific requirements.


## Art and Design

Art and Design Building, \#1101
siue.edu/artsandsciences/art

## Distinguished Research Professor

Dresang, Paul, M.F.A., 1975, University of Minnesota

## Professors

Barrow, Jane, M.F.A., 1990, Indiana University Bloomington
Cooper, Ivy, Ph.D., 1997, University of Pittsburgh
Duhigg, Thad, M.F.A., 1989, Syracuse University
Klorer, Patricia, Ph.D., The Union Institute
Strand, Laura, M.F.A. 1993, University of Kansas

## Associate Professors

Anderson, Todd, M.F.A., 2004, University of New Mexico
Brown, Steve, M.F.A., 1994, University of Delaware
DenHouter, John, M.F.A., 1994, Eastern Michigan University
Dimick, Brigham, M.F.A., 1991, Indiana University Bloomington
Goebl-Parker, E., M.S., 2004, Washington University
Nwacha, Barbara, (Chair), M.F.A., 1998, The University of Iowa

## Assistant Professors

Howard, Aimee, M.F.A., 2009, University of Kansas
Park, Sangsook, Ed.D., 2004, University of Illinois
Poole, Katherine, Ph.D., 2007, Rutgers University
Robb, Megan, M.A., 2002, The George Washington University
Sutters, Justin, Ph.D., 2012, The Ohio State University

## Program Description

The Department of Art and Design offers three undergraduate degrees: a bachelor of arts degree in art with options in art history or studio art; a bachelor of fine arts degree in art and design; and a bachelor of science degree in art education.

Undergraduate offerings in art include introductory and specialized courses in drawing, painting, printmaking, sculpture, ceramics, textiles, glassworking, graphic design, photography/digital arts, jewelry and metals, museology, art historical studies, and professional preparation for the future art teacher
at the elementary or secondary level.
To augment the academic program, the Department of Art and Design has a comprehensive program in the visual arts that includes a Visiting Artist Program and an Exhibition Program. These programs provide an opportunity both for art majors and non-majors to become acquainted with well-known artists and art works brought to the University.
Students who have graduated from accredited high schools may be admitted to the bachelor of arts, bachelor of science, or bachelor of fine arts programs. A grade point average of 2.5 (on a 4.0 point scale) is required for acceptance into and graduation from the programs. Admission to the bachelor of fine arts program is by portfolio examination with applications accepted each fall and spring semesters. In addition, bachelor of fine arts candidates must have a 3.0 grade point average in studio courses for admission to and graduation from the program. A grade of $C$ or above is required in art classes used as prerequisites for other art classes.

## Career Opportunities

Students majoring in art find career opportunities in a wide variety of professional fields, including teaching in public and private schools; recreational, cultural, and craft programs in city, state and federal government agencies; design, advertising, and commercial art agencies; museums, galleries and other cultural institutions. The undergraduate programs in art also prepare students for graduate study in their fields of specialization; graduates have been able to compete very successfully for career and graduate education opportunities.

## Degree Programs

Bachelor of Arts, Art
Specialization required in one of the following: Art History Art Studio

Bachelor of Science, Art
Specialization is required in one of the following: Education Studio

Bachelor of Fine Arts, Art and Design

## Program Overview and General Department Information

## Admission

To be admitted to the Bachelor of Science or Bachelor of Arts program, students must:

■ complete all Academic Development courses required by the University.
■ complete any courses required to address high school deficiencies.
■ attain a cumulative grade point average of at least 2.5 (on a 4.0 scale); Art Education and Art History majors need a 2.5 (on a 4.0 scale).
In order to be admitted into the teacher licensure program, students must have:
■ received a grade of "C" or above in Eng 101 and 102;
■ successfully completed the introductory course Ci 200 (Introduction to Education) with a "C" or higher
■ completed 43 semester hours of course credit

- passed the ILTS Test of Academic Proficiency (formerly the Basic Skills Test) or the ACT equivalent with the approved substitute application. Information about the Test of Academic Proficiency is available at il.nesinc.com.
To be admitted to the Bachelor of Fine Arts program, students must:
- Currently be working toward the Bachelor of Science, or Bachelor of Art,
- Complete at least one semester at SIUE

■ Attain a cumulative grade point average of at least 2.5 (on a 4.0 scale) and a 3.0 average in studio courses.

- Submit application with 20 digital images from artwork completed at SIUE, artist statement, unofficial transcript.
Deadline for submission: November 1st or April 1st


## Retention

- Maintain a cumulative grade point average of 2.0 (BA) or 2.5 (BFA candidate)
- Attain C or above in all art classes used as prerequisites for other art classes.
- Students failing to meet above standards may be conditionally retained. Failure to meet the conditions established by the department will result in termination from the major and ineligibility to enroll in upper division Art and Design courses without written departmental permission.


## Transfer

Transfer students should contact the department for a review of credentials and placement at
least 30 days before the beginning of the term for which entry is desired.

## General Education Requirements for the Major

University general education requirements are outlined in the General Education section of this catalog and included in the sample curriculum outline.

## Major Requirements

## Art Education

ART112a,b,c,d......................................... . . 12
ART 202 (ART 202 e required). . . . . . . . . . . . . . . . . . . . . . . 15
ART 225a,b, Art History Elective . . . . . . . . . . . . . . . . . . . . . 12
Art Studio 300/400 level . . . . . . . . . . . . . . . . . . . . . . . . . . . 15
Art 289, 300b, 364, 365.................................. . . 12
ArtElectives . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 6
Ci 200, EPFR 315, EPFR 320, SPE 400, . . . . . . . . . . . . . . 11
Ci 352, Ci 451B (Student Teaching) ...................... 12
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 95

## Art Studio

ART 112a,b,c,d......................................... . . 12
ART 202 (ART 202 e required). . . . . . . . . . . . . . . . . . . . . . 18
ART 225a,b, Art History Elective . . . . . . . . . . . . . . . . . . . . . 12
Art Studio 300/400 level (major area) . . . . . . . . . . . . . . . . . 12
Art Studio 300/400 level (open) . . . . . . . . . . . . . . . . . . . . . . . 9
ART 405 ................................................. . . . . 3
ArtElectives . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 69

## B.F.A.: Art and Design

After completion of the first two years of the Bachelor of Science: Art Education or the Bachelor of Art: Art Studio, a student may apply for admission to the Bachelor of Fine Arts degree (see admission requirements for B.F.A.)

ART 112a,b,c,d. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12
ART 202 (ART 202e required). . . . . . . . . . . . . . . . . . . . . . . . . . . 18
ART 225a,b, Art History Electives . . . . . . . . . . . . . . . . . . . . 15
Art Studio 300/400 level (major area) . . . . . . . . . . . . . . . . . 15
Art Studio 300/400 level . . . . . . . . . . . . . . . . . . . . . . . . . . . . 9
ART 405 .................................................. . . 3
ART 441 .................................................. . 3
Art-related Electives . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 6
ART 499-Thesis . ........................................ . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 84
Art History
ART 225a, b . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 6
400-Level Art History courses. . . . . . . . . . . . . . . . . . . . . . 39
Choose from the following (at least two must be non-
Western topics, two must be pre-1700 (pre-modern
topics, and two must be post-1700 (modern) topics:
ART 424, ART 447a, b ART 448, ART 449, ART 467, ART
$468 a, b$, ART $469 a, b$, ART 470 (repeatable to 9 hours),

ART 471 (repeatable to 9 hours), ART 472 (repeatable to 9 hours), ART 473, ART 474, ART 475, ART 476, ART 480, ART 481, ART 482, ART 483 (repeatable to 9 hours)

Students are urged to elect philosophy 360 and anthropology 305 , courses in non-visual arts and history, additional language study, and art studio.
Studio Art Courses ..... 6
Art 485: Methods and Research in Art History ..... 3
Art 487: Senior Capstone in Art History ..... 3
Electives ..... 6
Total ..... 57

## Sample Curriculum for the Bachelor of Science, Art - Education (K-12)

Fall Semester
Year 1
ART 112a - Foundation Studio: Drawing I . . . . . . . . . . . . . . . . . . 3
ART 112b - Foundation Studio: Visual Org. I . . . . . . . . . . . . . . . . . 3
ENG 101 -English Composition I . . . . . . . . . . . . . . . . . . . . . . . . . 3
ACS 101 or 103 - Oral Expression . . . . . . . . . . . . . . . . . . . . . . . . 3
Life, Physical or Social Science with a lab (EL) . . . . . . . . . . . . . . . 3
Humanities (BHUM/EUSC) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18
Year 2
ART 202 - Introduction to Studio (FPA) . . . . . . . . . . . . . . . . . . . . 3
ART 202 - Introduction to Studio (FPA) . . . . . . . . . . . . . . . . . . . . . 3
ART 202 - Introduction to Studio (FPA) . . . . . . . . . . . . . . . . . . . . 3
ART 225A - History of World Art (BFPA, EGC) . . . . . . . . . . . . . . . 3
Life, Physical or Social Science with a lab (EL) . . . . . . . . . . . . . . 3
RA 101 - Reasoning \& Argumentation or PHIL 213 . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18
Year 3
Physical Science (BPS). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Interdisciplinary Studies (IS) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
ART 300-400-Level Art Studio . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Art History Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Art 289 - Practicum in Art Education. . . . . . . . . . . . . . . . . . . . . . . 3
EPFR 315 -Education Psychology . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18

## Year 4

ART 365-ArtEducation. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
ART 300-400-level Art Studio . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
EPFR 320 - Foundations of Educ in a Multicultural Society . . . . . 3
SPE 400 - The Exceptional Child . . . . . . . . . . . . . . . . . . . . . . . . 3
Art Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 6
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18

Spring Semester

Year 1
ART 112c-Foundation Studio: Drawing II . . . . . . . . . . . . . . . . . 3
ART 112d - Foundation Studio: Visual Organization II. . . . . . . . . 3
ENG 102 - English Composition II. . . . . . . . . . . . . . . . . . . . . . . . 3
Info \& Communication in Society (BICS) . . . . . . . . . . . . . . . . . . . 3
Life Science (BLS). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Life, Physical or Social Science/Health Experience (EH) . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18
Year 2
ART 202 - Introduction to Studio (FPA) . . . . . . . . . . . . . . . . . . . . 3
ART 202e - Introduction to Studio (FPA) . . . . . . . . . . . . . . . . . . . . 3
ART 300-400-level Studio . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
ART 225b - History of World Art (BFPA) . . . . . . . . . . . . . . . . . . . 3
QR 101, MATH 150 or Higher . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
CiED 100 - Introduction to Education . . . . . . . . . . . . . . . . . . . . . . 2
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 17
Year 3
Social Science (BSS) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
ART 300-400-level Art Studio . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
ART 300-400-level Art Studio . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Life, Physical or Social Science . . . . . . . . . . . . . . . . . . . . . . . . . . 3
ART 364 - Art Education. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
ART 300b - Art Education. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . ............................................................. . . . 18
Year 4
Ci 352a-Student Teaching-Secondary . . . . . . . . . . . . . . . . . . . 6
Ci 451b - Student Teaching - Elementary . . . . . . . . . . . . . . . . . . 6
Art History Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15
*Students must select 15 hours from ART 202a, b, c, d, e, f, g, h or i. Speak with an art advisor about specific state licensure requirements.

## Graduation Requirements

- Complete all general education and specific program requirements.

■ File an Application for Graduation by the first day of the term in which you plan to graduate.

- A minimum of one year must be completed as a B.F.A. before graduation.


## Sample Curriculum for the Bachelor of Arts, Art - Studio

Fall Semester Spring Semester
Year 1 Year 1
ART 112a-Foundation Studio: Drawing I ..... 3
ART 112b-Foundation Studio: Visual Organization I ..... 3
ENG 101 - English Composition I ..... 3
Humanities (BHUM) ..... 3
ACS 101 or 103-Oral Expression ..... 3
Total ..... 15
ART 112c - Foundation Studio: Drawing II ..... 3
ART 112d - Foundation Studio: Visual Organization II. ..... 3
ENG 102 -English Composition II. ..... 3
Life Science (BLS) with a lab (EL) .....  3
Social Science (BSS, EUSC). ..... 3
Total ..... 15
Year 2
Year 2
ART 202 - Introduction to Studio ..... 3
ART 202 - Introduction to Studio ..... 3
ART 202 - Introduction to Studio ..... 3
ART 225A - History of World Art (BFPA) ..... 3
Physical Science (BPS). ..... 3
QR 101, MATH 150 or Higher ..... 3
ART 202 - Introduction to Studio ..... 3
ART 202e ..... 3
ART 300-400 level Studio ..... 3
ART 225b - History of World Art (BFPA, EGC) ..... 3
RA 101 - Reasoning \& Argumentation or PHIL 213 ..... 3
Total ..... 15
Total ..... 18
Year 3 Year 3
Foreign Language 101 (BICS) ..... 4Fine \& Performing Arts or Humanities3 Elective4
4ART 202 - Introduction to Studio3
ART 300-400 Level Major Studio ..... 3
Art History Elective (FPA) ..... 3
ART 300-400-level Major Art Studio ..... 3
ART 300-400-level Art Studio ..... 3
Fine \& Performing Arts or Humanities ..... 3
Total ..... 16
Total ..... 17
Year 4
ART 300/400 Major Studio ..... 3
ART 300-400-level Art Studio
Art History Elective (FPA) ..... 3
Interdisciplinary Studies (IS) ..... 3
Year 4
ART 300/400 Major Studio ..... 3
ART 405-Seminar. ..... 3
Art Elective ..... 3
Health Experience (EH). ..... 3
Total ..... 12
Total ..... 12
A grade of $C$ or higher is required for those classes used as pre-requisites for another, i.e. ART 112a, b, c, d; Art 225a, b and any 200-level course for required major or advanced electives in art.

## Graduation Requirements

■ Complete all general education and specific program requirements.
■ Complete Senior Assignment

- File an Application for Graduation by the first day of the term in which you plan to graduate.


## Sample Curriculum for the Bachelor of Fine Arts, Art and Design

Fall Semester
Year 1
ART 112a - Foundation Studio: Drawing I . . . . . . . . . . . . . . . . . . 3
ART 112b - Foundation Studio: Visual Organization I . . . . . . . . . . 3
ENG 101 -English Composition I . . . . . . . . . . . . . . . . . . . . . . . . 3
ACS 101 or 103 - Oral Expression . . . . . . . . . . . . . . . . . . . . . . . . . 3
QR 101, MATH 150 or Higher . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15

## Year 2

ART 202 - Introduction to Studio . . . . . . . . . . . . . . . . . . . . . . . . . 3
ART 202 - Introduction to Studio . . . . . . . . . . . . . . . . . . . . . . . . . 3
ART 202 - Introduction to Studio . . . . . . . . . . . . . . . . . . . . . . . . . . 3
ART 225A - History of World Art. . . . . . . . . . . . . . . . . . . . . . . . . . 3
Social Science (BSS/EUSC) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15
Spring Semester
Year 1
ART 112c - Foundation Studio: Drawing II ..... 3
ART 112d - Foundation Studio: Visual Organization II. ..... 3
ENG 102 - English Composition II. ..... 3
Physical Science (BPS) with a lab (EL) ..... 3
RA 101 - Reasoning \& Argumentation or PHIL 213 ..... 3
Total ..... 15
Year 2
ART 202 - Introduction to Studio ..... 3
ART 202e - Introduction to Studio, Drawing ..... 3
ART 300-400 level Studio ..... 3
ART 225b - History of World Art (BFPA, EGC) ..... 3
Life Science (BLS)/Health Experience (EH) ..... 3
Total ..... 15
Sample Curriculum for the Bachelor of Fine Arts, Art and Design (continued)
Fall Semester
Year 3
Foreign Language 101 (BICS) ..... 4
Fine \& Performing Arts or Humanities ..... 3
ART 202 - Introduction to Studio .....  3
ART 300-400 Level Major Studio ..... 3
Art History Elective (FPA) ..... 3
Total ..... 16
Year 4
ART 300/400 Major Studio .....  3
ART 331 - Advanced Drawing (Pre-requisite to ART 441) 3
ART History Elective (FPA) ..... 3
Interdisciplinary Studies (IS) ..... 3Total12Spring Semester
Year 3
Foreign Language 102 ..... 4Humanities (BHUM)3
ART 300-400 level Major Art Studio ..... 3
ART 300-400 level Art Studio ..... 3
Total ..... 13
Year 4
ART 300/400 Major Studio ..... 3
ART 405 - Seminar ..... 3
ART 441 - Research in Drawing ..... 3
Art Related Elective ..... 3
Total ..... 12
Year 5
ART 300/400 Major Studio ..... 3
ART Related Elective ..... 3
ART 499 - Thesis ..... 3
Art History Elective (FPA) ..... 3
Total ..... 12

## Graduation Requirements

■ Complete all general education and specific program requirements.
■ File an Application for Graduation by the first day of the term in which you plan to graduate.
■ A minimum of one year must be completed as a B.F.A. before graduation.

## Sample Curriculum for the Bachelor of Arts, Art - Art History

Fall Semester

Year 1
ART 225a - History of World Art (BFPA/EGC). . . . . . . . . . . . . . 3
ENG 101 -English Composition I . . . . . . . . . . . . . . . . . . . . . . 3
Foreign Language 101 (BICS). . . . . . . . . . . . . . . . . . . . . . . . . 4
Breadth Humanities (BHUM). . . . . . . . . . . . . . . . . . . . . . . . . . . 3
ACS 101 or 103-Oral Expression . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16
Year 2
Art History 400 level (FPA) . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Art History 400 level (FPA) . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Physical Science (BPS) with a lab (EL) . . . . . . . . . . . . . . . . . . . 3
United States Culture Experience (EUSC) . . . . . . . . . . . . . . . . . 3
QR 101, MATH 150 or Higher . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15

## Year 3

Art History 400 level . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Art History 400 level . ....................................... 3
Art History 400 level . ...................................... 3
Interdisciplinary Studies (IS) . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Minor/Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15

## Year 4

Art History 400 level . ........................................ 3
Art History 400 level . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Art Studio Elective. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Minor/Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Minor/Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16

Spring Semester
Year 1
ART 225b - History of World Art . . . . . . . . . . . . . . . . . . . . . . . . . . 3
ENG 102 - English Composition II. . . . . . . . . . . . . . . . . . . . . . . . . 3
Foreign Language 102 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
RA 101 - Reasoning \& Argumentation or PHIL 213 . . . . . . . . . . . 3
Breadth Social Science (BSS). . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16
Year 2
Art History 400 level (FPA) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Art History 400 level . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Breadth Life Science (BLS) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Health Experience (EH). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Minor/Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15
Year 3
Art History 400 level . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Art History 400 level . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Art Studio Elective. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Minor/Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Minor/Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15
Year 4
Art History 400 level . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Art History 400 level . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
ART 485 Art History Methods \& Research. . . . . . . . . . . . . . . . . . . 3
ART 487 Senior Capstone in Art History . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12

Minor/Elective must consist of 29 hours. It is possible to pursue a double major or have two minors that utilize the hours allowed for elective/minor within this major.

## Graduation Requirements

■ Complete all general education and specific program requirements.

■ Complete Senior Assignment.

- File an Application for Graduation by the first day of the term in which you plan to graduate.


## Minor - Art History Requirements (18 hours)

ART 225a,b
12 hours from the following: ART 424, Art 447a,b, ART 448, ART 449, ART 451, ART 468a,b, ART 469a, b, ART 470 (repeatable to 9 hours), ART 473, ART 475, ART 476, ART 480, ART 481a,b, ART 483
Minor - Art Studio Requirements (27 hours)
ART 112a, b, c, d
ART $225 \mathrm{a}, \mathrm{b}$
9 hours from the following: ART 202a, b, c, d, e, $\mathrm{f}, \mathrm{g}$, h, or i.

## Biological Sciences

Science Lab West, Room 1155

siue.edu/BIOLOGY

## Professors

Duvernell, David D., Ph.D., 1998, Virginia Tech
Esselman, Elizabeth J., Ph.D., 1996, The Ohio State University
Kitz, Dennis J., Ph.D., 1980, University of Iowa
Krajniak, Kevin G., Ph.D., 1990, University of Florida
Lin, Zhi-Qing, Ph.D., 1996, McGill University
Retzlaff, William A., Ph.D., 1987, Clemson University
Romero, Aldemaro (Dean), Ph.D., 1984, University of Miami
Schulz, Kurt E., Ph.D., 1991, University of Wisconsin-Madison

## Associate Professors

AbuSharbain, Elaine M., Ph.D., 1992, Southern Illinois University Carbondale
Barry, Kelly J., Ph.D., 1992, University of Hawaii
Brunkow, Paul E., Ph.D., 1996, Arizona State University
Essner, Jr.,Richard L., Ph.D., 2003, The Ohio State University
Fowler, Thomas J., Ph.D., 1993, The Ohio State University
Kohn, LuciAnn P., Ph.D., 1989, University of Wisconsin-Madison
Liebl, Faith L.W., Ph.D., 2005, University of Illinois at Chicago
Luesse, Darron R., Ph.D., 2006, Indiana University, Bloomington
McCracken, Vance J., Ph.D., 2001, University of Illinois at Urbana-Champaign
Minchin, Peter R., Ph.D., 1984, University of Tasmania
Theodorakis, Christopher W., Ph.D., 1994, University of Tennessee

## Assistant Professors

Chan, Melissa, Ph.D., 2005, Kyoto University
Hubert, Amy, Ph.D., 2009, University of Wisconsin-Madison
Jennings, David, Ph.D., 1997, University of Colorado
Williams, Jason, Ph.D., 2005, Miami University
Yoon, Kyong Sup, Ph.D., 2006, University of Massachusetts

## Program Description

Biology includes the whole domain of living things: patterns of cellular structure; the underlying biochemical pathways; anatomy and function of whole organisms; the mathematical
predictability and molecular basis of inheritance; the flow of energy and matter through living systems; the regulation and interaction of basic life processes; the universality of adaptation; and the interdependence of the biosphere. Like all sciences, biology is both cumulative and openended in its discoveries. It teaches the wonders of life, the excitement of discovery, and the challenge of the unknown.
Students who are curious about living things, how they function, and how they relate to the environment may want to study biology.
The Department of Biological Sciences operates tissue culture facilities, microscopy facilities, warm and cold rooms, computer laboratories and a greenhouse. Preparative ultracentrifuges, spectrophotometers, confocal microscope and gel electrophoresis equipment are available to facilitate research in enzymes, proteins, and genetic engineering. A comprehensive collection of instruments is available to conduct research in plant physiological ecology: oxygen electrode system with fluorescence probe, infrared gas analyzer for measurement of CO 2 uptake, pressure chamber and thermocouple psychrometer for measuring water potential, and data loggers with a variety of sensors to measure environmental variables. The department maintains substantial collections of insects, fish, amphibians, reptiles, birds, mammals, and plants. The 2,660 -acre campus, with its wooded areas, lakes, and ponds, provides easily accessible habitats for ecological and other field work.

The Department of Biological Sciences offers five specializations or options for a bachelor of arts or science degree in biological sciences. These are:

## Ecology, Evolution, and Environment

Recent rapid advances in technology combined with a growing awareness of the impact of human activity on the environment have resulted in the development of broad opportunities in environmental biology. Ecology is the study of interactions between living organisms and their environment. Evolution provides the theoretical basis that binds all of biology together. These areas combine to help us understand human impacts on natural systems. These areas have both academic and practical importance because they stimulate intellectual curiosity about the natural world and provide a scientific basis for the solution of modern environmental problems.
The ecology, evolution, and environment specialization within the biological sciences bachelor's degree program prepares students for positions that require the application
of ecological principles to the solution of environmental problems. The specialization also prepares students for advanced study in all areas of biology, including wildlife ecology and forestry. Students selecting this specialization will take a planned sequence of courses that includes basic biological sciences, ecology, evolution, and environmental science. This study may include laboratory and field research. A variety of elective courses is available to allow students to pursue special interests such as plant or animal ecology, environmental management, and evolutionary biology at either the organismal or cellular level. Students should consult their advisor to devise a course schedule to fit their specific talents and interests.

## Genetics and Cellular Biology

Genetic engineering and cellular biology are rapidly expanding fields in biology. Genetic engineering is a defined method for producing genetic changes in a variety of organisms in the laboratory. Cellular biology is a field that studies all aspects of gene regulation, protein trafficking, cell physiology, and apoptosis. A large number of industrial companies and many research laboratories use genetic engineering and cell biology techniques in their work. Job opportunities are numerous and growing in number. Students with training in genetic engineering and cellular biology may be employed in diverse laboratory settings including plant breeding, insecticide development, and the production of pharmaceuticals.

## Integrative Biology

The curriculum in this program is designed to provide a firm basis in biological sciences for students with a variety of goals. It is an attractive major for students planning to enter graduate school or for students pursuing careers in biological research or in applied work in areas such as agriculture, conservation, and wildlife management. Students in this program may elect to concentrate in such specific disciplines as botany, microbiology, physiology, cellular and molecular biology, genetics, and zoology by completing their electives through courses in these areas. Some disciplines require chemistry courses beyond the minimum requirements.

## Medical Sciences

The medical sciences specialization, a pre-health professions curriculum, will prepare students for entry into medical, dental, pharmacy, veterinary, optometry, osteopathy, chiropractic, and podiatry schools, as well as into many other allied health programs.

Students considering a health-related profession should demonstrate above-average ability in the natural sciences. Students also should exhibit traits commonly associated with health practitioners, e.g., persistence, curiosity, good judgment, initiative, emotional maturity, attention to details, and good interpersonal skills. Pre-dental students should also have or develop good manual skills and the ability to make acute judgments on space and shapes. The biological sciences program described below is designed to provide students with a rigorous course of study that will satisfy the entrance requirements of professional schools, as well as to award students a bachelor of science degree either at the end of the four-year program, or in the case of early admission, at the end of the first year of professional school (see below). Students requesting acceptance for the medical science specialization will be advised by a biology/medical science advisor with regard to their academic curriculum. Because professional schools adhere rigidly to their entrance requirements and because there is strict course sequencing for completion of these requirements, students in this specialization should seek advisement early to ensure satisfactory progress.

The health professions advisors maintain a centralized evaluation service to aid students seeking entry into professional schools during the application process. The advisor is available in the College of Arts and Sciences Advisement Office to help and advise such students regarding application procedures.

## Medical Technology

This degree specialization is designed for students who wish to become medical technologists certified by the American Society of Clinical Pathologists. Medical technologists should have a firm understanding of the theory behind the diagnostic tests they perform in the clinical laboratory. Their responsibilities encompass all clinical laboratory disciplines, such as clinical chemistry, urinalysis, hematology, serology, immunology, blood and organ banking, microbiology, parasitology, and nuclear medicine. As self-motivated, inquisitive scientists, medical technologists contribute to the development of new methods and laboratory instrumentation that aid physicians in preventing and curing disease. Most medical technologists are employed in hospitals, but private laboratories, physicians' offices, government agencies, industrial and pharmaceutical laboratories, and university research programs
offer growing opportunities for employment advancements.

The American Medical Association's Council on Medical Education, the American Society of Clinical Pathologists, and the American Society of Medical Technology collaborate in determining minimum standards for educational programs for medical technologists. The first three years of the program take place on the SIUE campus. During this time, students fulfill general education requirements and master fundamental knowledge and skills in biology, chemistry, physics, and mathematics. The fourth year of clinical/professional study takes place in a clinical laboratory setting at one of the University's affiliated hospital schools of medical technology. Acceptance to this last year of study is on a competitive basis and is not guaranteed to individual students in the program. Students enroll at SIUE for 36 hours of credit during the clinical year. Credits are earned through courses in blood banking, chemistry, coagulation, hematology, microbiology, mycology, parasitology, serology, urinalysis and other subjects as specified in the agreement with each hospital affiliate. Students are awarded the bachelor of science in biology/medical technology degree by SIUE upon successful completion of four years in the program. At this time students are eligible to apply for examination by the Board of Registry of the American Society of Clinical Pathologists, and if successful, are certified as medical technologists.
Students in this program should seek advisement early in their academic careers from the biology/ medical technology advisor because there is strict course sequencing for the completion of requirements. Careful scheduling is essential to completion in three years of the on-campus academic portion of the program.

## Career Opportunities

Many careers are available for people with basic or advanced training in biology. There are opportunities in botany, dentistry, ecology, education, environmental biology, fisheries biology, genetic engineering, horticulture, immunology, medicine, medical technology, microbiology, molecular biology, parasitology, physiology, wildlife management, forestry, and zoology. Technical and supervisory positions are available in federal, state, industrial and university laboratories. Environment and healthrelated occupations almost always require sound basic training in biology. Most students entering schools of medicine, dentistry, optometry,
osteopathy, veterinary science, chiropractic and podiatry are biology majors. Basic training in biology is essential for careers in allied health sciences, including nutrition, pharmacy, occupational therapy, and physical therapy.

## Degree Programs

Bachelor of Science, Biological Sciences
Specialization required in one of the following:
Ecology/Evolution/Environment
Genetics and Cellular Biology
Integrative Biology
Medical Science
Medical Technology
Teacher Licensure (6-12) Program
Bachelor of Arts, Biological Sciences
Specialization required in one of the following:
Ecology/Evolution/Environment
Genetics and Cellular Biology
Integrative Biology
Medical Science
Medical Technology

## Admission

High school students who plan to major in one of the degree programs in biological sciences should complete at least three years of college preparatory mathematics (two years of algebra and one year of geometry), and one year each of chemistry and biology before entering the University. A fourth year of college preparatory mathematics (to include trigonometry) is strongly recommended.
Admission to a degree program in biological sciences requires an application for a major and acceptance by the department. Once admitted, students are formally affiliated with the department and assigned an academic advisor. Advisement is mandatory. Majors are permitted to register each term only after their Course Request Forms have been approved by an academic advisor.
Students are encouraged to select their major field of study early in their academic careers to ensure orderly progress toward meeting degree requirements. To be admitted, students already enrolled in the University must have a minimum grade point average of 2.0 in completed science and mathematics courses, as well as a cumulative grade point average of 2.0 or higher in all courses taken at SIUE. Transfer students should have a 2.0 grade point average in science and mathematics courses taken at other colleges and universities.

## Retention

Students should show satisfactory academic progress to be retained in a degree program. Students may be dropped from the biology major for any of the following reasons:

■ grade point average of 1.0 or below in any term

- cumulative grade point average of lower than 2.0 in the major at any time
- any combination of withdrawal, incomplete, and failing grades in 50 percent or more of the courses for which the student is registered during two successive terms
■ any combination of three withdrawal, incomplete, or failing grades in any single required course in Biology.

For readmission, students must meet the same admission requirements as students entering the program for the first time.

## Transfer

Coursework completed at regionally accredited institutions will be evaluated upon admission to the University. Results of transfer credit evaluations are available to students through CougarNet. For more information regarding transfer, please visit www.siue.edu/transfer.

## Advisement

Students interested in majoring in one of the options in biology are advised to apply for a major as early as possible and to consult with a CAS advisor without delay. Students must complete all required academic development and high school deficiency courses before declaring a biology major. Students are informed in writing of advisement procedures and assigned an academic advisor at the time of declaration. Students are required by the University to consult an advisor prior to registration each term. Enrollment in biology major courses above 151 requires approval of a biology advisor. Biology -particularly specializations in medical sciences, teacher licensure (6-12), and medical technology - requires strict course sequencing if requirements are to be completed in four years. An appointment for advisement may be made by calling the CAS Advising Office at (618) $650-5525$. The advisor will be pleased to help students prepare a program of study in biological sciences in any one of the six specializations.

## Academic Standards

All students pursuing a major in the biological sciences must adhere to the following academic
standards in addition to those listed above.

- A grade of C or better is required in each of the major core courses $(150,151,220)$ before proceeding to the next core course.
■ No more than 4 hours of D may be counted in the 38 hours required for a major in the biological sciences.
- The GPA in the major is based on all courses attempted in the major.
- Any student who receives four grades of D, F, or WF in biology courses numbered 220 or lower is no longer permitted to enroll in biology classes for credit toward a biology major.


## Residency and Other Requirements

Majors in biological sciences must complete at least 18 of the required hours in biology at SIUE. At least two 400-level courses must be included in the 18 hours. Students may take as many as 8 hours of 491 and 493 together as electives, but these will not fulfill the 400 -level course requirements. For graduation, all specializations require 26 hours in biology beyond the introductory level. Credit for a biology major will be awarded for courses cross-listed with the biology curriculum. One year of a foreign language is required for the bachelor of arts degree in all specializations. Students seeking a minor in biological sciences must complete at least 9 of the 19 hours of biology at SIUE and obtain a GPA of 2.0 or better in all biology courses attempted at SIUE. All biology options require Chemistry 121.

## Degree Requirements, Biological Sciences

Core Requirements
BIOL 150 BIOL 151 BIOL220
Chemistry Requirements
CHEM 121 a,b CHEM 125 a,b CHEM 241 a,b
CHEM 245
Complete one of the following Specializations:
Ecology, Evolution and Environment
BIOL 327 BIOL 365 BIOL492
BIOL 492m or 497
Biology EEE Electives ( $12-14$ hours)

| BIOL 330 | BIOL 380 | BIOL 422a | BIOL 423 |
| :--- | :--- | :--- | :--- |
| BIOL 434 | BIOL 435 | BIOL 462 | BIOL 463 |
| BIOL 464 | BIOL 465 | BIOL 466 | BIOL467 |
| BIOL 468 | BIOL 469 | BIOL 470 | BIOL 471 |
| BIOL 472 | BIOL 473 | BIOL 474 | BIOL480 |
| BIOL 483 | BIOL 485 | BIOL486 | BIOL487 |
| BIOL488 | BIOL 489 |  |  |

Two 400-level courses required, and three courses must have labs among which must be at least one field course and at least one diversity course

One course from Molecular/Cell/Physiology electives:

| BIOL 319 | BIOL 335 | BIOL 337 | BIOL 350 |
| :--- | :--- | :--- | :--- |
| BIOL 415 | BIOL 416 | BIOL 421 | BIOL 422 |
| BIOL 451 | BIOL 467 | BIOL 472 |  |

Mathematics/Physics Requirements
MATH 150 \& PHYS 111 or PHYS 131/131L, 132,132L (or 151, 152, and 151L, 152L) STAT 244
Electives (8-14 hours)

## Genetics and Cellular Biology

BIOL $319 \quad$ BIOL $492 \quad$ BIOL 492 m or 497
BIOL 430 a,b or CHEM 451 a,b
Biology GCB Electives

| BIOL 415 | BIOL 418a | BIOL 418b | BIOL 421 |
| :--- | :--- | :--- | :--- |
| BIOL 422a | BIOL 425 | BIOL 431 | BIOL 432 |
| BIOL 436 | BIOL 452 | BIOL 455 | BIOL 472 |

BIOL 473
Three of the above must be taken, including at least one lab course

## Biology GB Electives

At least one additional 300-400 level BIOL elective must be taken from courses not on the GCB list above
Mathematics/Physics Requirements
MATH 150 STAT 244
PHYS 131/131L, 132/132L (or 151, 152, and 151L, 152L)
Electives (8-10 hours)

## Integrative

One course from the Ecology, Evolution and Behavior Area:
BIOL 327 BIOL 330 BIOL 365 BIOL 422a,b
BIOL 434 BIOL 435 BIOL 436 BIOL 461
BIOL 462 BIOL 463 BIOL 464 BIOL 465
BIOL 466 BIOL468 BIOL469 BIOL470
BIOL 471 BIOL $480 \quad$ BIOL 488
One course from the Biological Diversity Area:
BIOL $350 \quad$ BIOL $380 \quad$ BIOL $471 \quad$ BIOL 474
BIOL 483 BIOL 485 BIOL486 BIOL 487
BIOL 488
One course from the Morphology, Physiology and Development Area:

| BIOL 330/ENSC 330 | BIOL 337 | BIOL 340 |  |
| :--- | :--- | :--- | :--- |
| BIOL 423 | BIOL 425 | BIOL 433 | BIOL/ENSC 434 |
| BIOL 441 | BIOL 461 | BIOL 467 | BIOL 472 |
| BIOL 473 | BIOL 481 | BIOL 489 |  |

One course from the Cellular and Molecular Area:
BIOL $319 \quad$ BIOL 332 BIOL 335 BIOL 337
BIOL 415a,b BIOL416 BIOL418a,b BIOL421
BIOL 430a BIOL 431 BIOL 432 BIOL 433
BIOL $451 \quad$ BIOL $452 \quad$ BIOL $455 \quad$ BIOL 456

## Biological Sciences Electives (8-12 hours)

Two BIOL lecture courses must be taken at the 400 level, and three BIOL courses above 220 must have a laboratory
requirement. No course may be used for credit in more than one Area.

## Mathematics/Physics Requirements

MATH 150
PHYS 111 or PHYS 131/131L, 132/132L (or 151, 152, and 151L, 152L)
STAT 244
BIOL 492 BIOL 492m or 497
Electives (11-17 hours)

## Medical Science

BIOL 319 BIOL 340 BIOL 430 a,b or CHEM 451 a,b BIOL 492 BIOL 492 m or 497

Biology Electives (10 hours)
Must include one 400-level elective course.
Mathematics/Physics Requirements
MATH 150 PHYS 131/131L, 132/132L (or 151, 152, and 151L, 152L)
STAT 244
Electives (5-7 hours)

## Medical Technology

BIOL $319 \quad$ BIOL $335 \quad$ BIOL $340 \quad$ BIOL 350
CHEM 351 or BIOL 332
Mathematics/Physics Requirements
MATH 125
PHYS 131/131L, 132/132L or (PHYS 151/151L and PHYS 152/152L)
STAT 107 or 244
Hospital Rotation (36 hours) ó As biology majors, students in the medical technology curriculum take three years of prescribed course work at SIUE, then complete a fourth year of clinical/professional study in the clinical laboratory at one of SIUE's affiliated hospitals. These students are not in residence on the SIUE campus during their senior year. Intern students move to the vicinity of the hospitals in St. Louis or Springfield. The department views the senior assignment for medical technology students in two ways: (1) successful completion of the hospital calendar year education program, and (2) achieving eligibility to apply for examination by the Board of Registry of the American Society of Clinical Pathologists, the certifying professional body in the United States. An outcome assessment also is provided by the scores received on the registry examination, which compares SIUE students' performance with other students in the United States who take the examination at the same time.

## Sample Curriculum - Bachelor of Science, ${ }^{\star}$ Biological Sciences, Ecology, Evolution and Environment

| Fall Semester | Spring Semester |
| :---: | :---: |
| Year 1 | Year 1 |
| CHEM 121A - General Chemistry I (BPS). . . . . . . . . . . . . . . . . . 4 | BIOL 150 - Biology I (BLS, EL) |
| CHEM 125A - General Chemistry Labl (EL). . . . . . . . . . . . . . . . 1 | CHEM 121B-General Chemistry II (BPS) |
| ENG 101 -English Composition . . . . . . . . . . . . . . . . . . . . . . . . . 3 | CHEM 125B - General Chemistry Lab II (EL) |
| ACS 101 or 103 -Oral Expression . . . . . . . . . . . . . . . . . . . . . . . 3 | ENG 102 -English Composition II. |
| MATH 125 -Pre-Calculus Mathematics with Trigonometry . . . . 3 | RA 101 - Reasoning \& Argumentation or PHIL 213. |
| Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 14 | Total |
| Year 2 | Year 2 |
| BIOL 151 - Biology II (BLS, EL) . . . . . . . . . . . . . . . . . . . . . . . . 4 | BIOL 220 - Genetics . |
| CHEM 241A - Organic Chemistry I (BPS) . . . . . . . . . . . . . . . . . 3 | CHEM 241B - Organic Chemistry II (BPS) |
| STAT 244 -Statistics (BICS). . . . . . . . . . . . . . . . . . . . . . . . . . . 4 | CHEM 245-Organic Chemistry Lab (BPS, EL) |
| Fine \& Performing Arts Breadth (BFPA) . . . . . . . . . . . . . . . . . . . 3 | QR 101, MATH 150 or Higher |
| Social Sciences Breadth (BSS) . . . . . . . . . . . . . . . . . . . . . . . 3 | Humanities Breadth (BHUM). |
| Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 17 | Total |
| Year 3 | Year 3 |
| BIOE MCP Elective 3-4 . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4 | BIOL 327 -Evolution. |
| BIOL 365-Ecology (EGC, EL) . . . . . . . . . . . . . . . . . . . . . . 4 | BIOL EEE 300-400 Level. |
| PHYS 131/131L - College Physics ${ }^{* *}$ or PHYS 151 - University | PHYS 132/132L College Physics or PHYS 152 University |
| Physics and 151L Lab . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5 | Physics II and 152L Lab**. |
| Health Experience (EH) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 | Elective |
| Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16 | Total |
| Year 4 | Year 4 |
| BIOL 492 - Biological Sci Colloquium I . . . . . . . . . . . . . . . . . . . 1 | BIOL 492m or 497. |
| BIOL EEE Elective 400 Level. . . . . . . . . . . . . . . . . . . . . . . . . . . 4 | BIOL EEE Elective 400 Level. |
| Interdisciplinary Studies (IS) . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 | BIOL Elective 300-400 Level |
| United States Cultures (EUSC) . . . . . . . . . . . . . . . . . . . . . . . . . 3 | Electives. |
| Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 | Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .12-14 |
| BIOL EEE Elective 400 level . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 |  |
| Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 17 |  |
| * Students pursuing a bachelor of arts degree will complete 8 courses in Fine and Performing Arts or Humanities including one year of the same foreign language. <br> ** MATH 150 and PHYS 111 may be substituted for PHYS 131/131L and 132/132L |  |

## Sample Curriculum - Bachelor of Science* in Biological Sciences, Genetics and Cellular Biology

Fall Semester

## Year 1

CHEM 121A - General Chemistry I (BPS) . . . . . . . . . . . . . . . . . . . 4
CHEM 125A - General Chemistry Lab I (EL) . . . . . . . . . . . . . . . . . 1
ENG 101 - English Composition I . . . . . . . . . . . . . . . . . . . . . . . . . 3
MATH 150 - Calculus I (FQR) . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
ACS 101 or 103-Oral Expression . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16

Year 2
BIOL 151 - Biology II (BLS, EL). . . . . . . . . . . . . . . . . . . . . . . . . . 4
CHEM 241A - Organic Chemistry I (BPS) . . . . . . . . . . . . . . . . . . . 3
RA 101 - Reasoning \& Argumentation . . . . . . . . . . . . . . . . . . . . 3
Fine \& Performing Arts (BFPA) . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Humanities Breadth (BHUM) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16

Spring Semester

Year 1
BIOL 150 - Biology I (BLS, EL) . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
CHEM 121B - General Chemistry II (BPS) . . . . . . . . . . . . . . . . . . 4
CHEM 125B - General Chemistry Lab II (EL) . . . . . . . . . . . . . . . . 1
ENG 102 - English Composition II. . . . . . . . . . . . . . . . . . . . . . . . . . 3
STAT 244 - Statistics (BICS). . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16

Year 2
BIOL 220 - Genetics (BLS, EL) . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
CHEM 241B - Organic Chemistry II (BPS) . . . . . . . . . . . . . . . . . . 3
CHEM 245 - Organic Chemistry Lab (EL) . . . . . . . . . . . . . . . . . . . . . 2
Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15

## Sample Curriculum - Bachelor of Science* in Biological Sciences, Genetics and Cellular Biology (continued)

Fall Semester

## Year 3

BIOL 319-Cell \& Molecular Biology . . . . . . . . . . . . . . . . . . . . . . . 4
BIOL GB Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
CHEM 451A - Biochemistry I . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
PHYS 131/131L or PHYS 151, 151L . . . . . . . . . . . . . . . . . . . . . . . 5
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16
Year 4
BIOL GCB Elective 400 Level ..... 4
BIOL 492 - Biological Sci Colloquium I ..... 1
BIOL GCB Elective 400 Level .....
Interdisciplinary Studies (IS) .....
Health Experience (EH).14

Spring Semester
Year 3
CHEM 451B - Biochemistry II . . . . . . . . . . . . . . . . . . . . . . . . . . 3
PHYS 132/132L or PHYS 152, 152L . . . . . . . . . . . . . . . . . . . . . . . 5
Social Science Breadth (BSS) . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Elective ............................................................. 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 14
Year 4
BIOL GCB Elective 400 Level . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
BIOL 492m or 497. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
Global Culture (EGC) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
United States Culture (EUSC) . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3

Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 13Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 133

* Students pursuing a bachelor of arts degree will complete 8 courses in Fine and Performing Arts or Humanities including one year of the same foreign language.


## Sample Curriculum - Bachelor of Science* in Biological Sciences, Integrative Biology

Fall SemesterYear 1
CHEM 121A- General Chemistry I (BPS) ..... 4
CHEM 125A - General Chemistry Labl (EL) ..... 1
ENG 101 -English Composition I ..... 3
MATH 125 - Pre-Calculus Mathematics with Trigonometry ..... 3
ACS 101 or 103-Oral Expression ..... 3
Total ..... 14
Year 2
BIOL 151 - Biology II (BLS, EL) ..... 4
CHEM 241A - Organic Chemistry I (BPS) ..... 3
STAT 244 - Statistics (BICS). ..... 4
Fine \& Performing Arts Breadth (BFPA) ..... 3
QR 101, MATH 150 or Higher ..... 3
Total ..... 17
Year 3
BIOL Elective ..... 4
Ecology, Evolution, \& Behavior Elective ..... 3-4
PHYS 131/131L - College Physics I** or PHYS 151 - UniversityPhysics and 151L Lab5
Social Science Breadth (BSS) .....  3
Total ..... 15-16
Year 4
BIOL 492. ..... 1
BIOL Elective 400 Level. ..... 3
Cellular \& Molecular Biology Elective. ..... 3-4
Interdisciplinary Studies (IS) ..... 3
Global Cultures (EGC) ..... 3
Elective .....  3
Total ..... 16-17
Spring Semester
Year 1
BIOL 150 - Biology I (BLS, EL) ..... 4
CHEM 121B - General Chemistry II (BPS) ..... 4
CHEM 125B - General Chemistry Lab II ..... 1
ENG 102 - English Composition II. .....  3
RA 101 - Reasoning \& Argumentation or PHIL 213 ..... 3
Total ..... 15
Year 2
BIOL 220 - Genetics (BLS, EL) ..... 4
CHEM 241B - Organic Chemistry II (BPS) ..... 3
CHEM 245 - Organic Chemistry Lab (EL) ..... 2
Health Experience (EH) .....  3
United States Culture (EUSC) ..... 3
Total ..... 15
Year 3
Biological Diversity Elective ..... 3-4
Morphology, Physiology \& Develop Elective ..... 3-4
PHYS 132/132L - College Physics II** or PHYS 152 University Physics II and 152L Lab ..... 5
Humanities Breadth (BHUM). ..... 3
Total ..... 14-16
Year 4
BIOL 492m or 497 ..... 1
BIOL Elective 400 Level .....  3
BIOL Elective ..... 3
Elective . ..... 3
Elective ..... 4
Total ..... 14

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## Sample Curriculum - Bachelor of Science* in Biological Sciences, Medical Sciences

Fall Semester Spring Semester
Year 1
CHEM 121A - General Chemistry I (BPS) ..... 4
CHEM 125A - General Chemistry Lab I (EL) ..... 1
ENG 101 - English Composition ..... 3
MATH 150 - Calculus I (FQR) ..... 5
ACS 101 or 103-Oral Expression ..... 3
Total ..... 16
Year 2
BIOL 151 - Biology II (BLS, EL) ..... 4
CHEM 241A - Organic Chemistry I (EL) ..... 3
RA 101 - Reasoning \& Argumentation or PHIL 213 ..... 3
Fine \& Performing Arts Breadth (BFPA) ..... 3
Humanities Breadth (BHUM) ..... 3
Total ..... 16
Year 3
BIOL 319 - Cell \& Molecular Biology . ..... 4
PHYS 132/132L or PHYS 152, 152L ..... 5
Social Science Breadth (BSS) ..... 3
BIOL Elective ..... 3
Total ..... 15
Year 4
BIOL 492. ..... 1
BIOL Elective (400 Level) ..... 4
CHEM 451A - Biochemistry I ..... 3
Interdisciplinary Studies (IS) ..... 3
Elective ..... 2
Total ..... 13
Year 1
BIOL 150 - Biology I (BLS, EL) ..... 4
CHEM 121B - General Chemistry II (BPS) ..... 4
CHEM 125B - General Chemistry Lab II (EL) .....  1
ENG 102 - English Composition II. ..... 3
STAT 244 - Statistics (BICS) ..... 4
Total ..... 16
Year 2
BIOL 220 - Genetics ..... 4
CHEM 241B - Organic Chemistry II (BPS) ..... 3
CHEM 245-Organic Chemistry Lab (EL) ..... 2
PHYS 131/131L or PHYS 151, 151L .....  5
Total ..... 14
Year 3
BIOL 340 - Physiology ..... 4
BIOL Elective (300-400 Level) ..... 3-4
Elective. ..... 3
Global Cultures (EGC) ..... 3
Health Experience (EH). .....  3
Total ..... 16-17
Year 4
BIOL 492m or 497 ..... 2
CHEM 451B - Biochemistry II ..... 3
United States Culture (EUSC). .....  3
BIOL Elective (300-400 Level) ..... 3-4
Elective. .....  3
Total ..... 14-15

* Students pursuing a bachelor of arts degree will complete 8 courses in Fine and Performing Arts or Humanities including one year of the same foreign language.
Sample Curriculum - Bachelor of Science* in Biological Sciences, Medical Technology
Fall SemesterYear 1
ENG 101 -English Composition I ..... 3
CHEM 121A - General Chemistry I (BPS) ..... 4
CHEM 125A - General Chemistry LabI (EL) ..... 1
MATH 125-Pre-Calculus Mathematics with Trigonometry ..... 3
ACS 101 or 103-Oral Expression ..... 3
Humanities Breadth (BHUM)/United States Cultures (EUSC) ..... 3
Total ..... 17
Year 2 Year 2
BIOL 151 - Biology II (BLS, EL) ..... 4
CHEM 241A - Organic Chemistry I (BPS) ..... 3
Fine \& Performing Arts Breadth (BFPA). ..... 3
QR 101, MATH 150 or Higher ..... 3
STAT 107-Concepts of Stats/STAT 244-Statistics (BICS) ..... 3-4
Total ..... 16-17
Spring Semester
Year 1
BIOL 150 - Biology I (BLS, EL) ..... 4
CHEM 121B-General Chemistry II (BPS) ..... 4
CHEM 125B - General Chemistry Lab II (EL) ..... 1
ENG 102 - English Composition II. ..... 3
RA 101 - Reasoning \& Argumentation or PHIL 213 ..... 3
Total ..... 15
BIOL 220 - Genetics ..... 4
CHEM 241B - Organic Chemistry II (BPS) ..... 3
CHEM 245 - Organic Chemistry Lab (EL) ..... 2
Social Science Breadth (BSS)/Global Culture (EGC) ..... 3
PHYS 131/131L - College Physics I ..... 5
Total ..... 17


## Sample Curriculum - Bachelor of Science* in Biological Sciences, Medical Technology (continued)

Fall SemesterYear 3
BIOL 319 - Cell \& Molecular Biology ..... 4
BIOL 350 - Microbiology ..... 4
CHEM 351 - Biochemistry ..... 3
PHYS 132/132L - College Physics II ..... 5
Total ..... 16
Year 4
Hospital Clinical Education ..... 18
Spring Semester
Year 3
BIOL 340 - Physiology ..... 4
BIOL 335 - Introduction to Immunology ..... 3
Health Experience (EH) ..... 3
Interdisciplinary Studies (IS) ..... 13
Year 4
Hospital Clinical Education ..... 18

* Students pursuing a bachelor of arts degree will complete 8 courses in Fine and Performing Arts or Humanities including one year of the same foreign language.


## Sample Curriculum - Bachelor of Science in Biological Sciences, Teacher Licensure (6-12)

Fall Semester
Year 1
CHEM 121A-General Chemistry I (BPS). ..... 4
CHEM 125A - General Chemistry Labl (EL) ..... 1
ENG 101 -English Composition I ..... 3
MATH 125 - Pre-Calculus Mathematics with Trigonometry ..... 3
RA 101 - Reasoning \& Argumentation or PHIL 213 ..... 3
Fine \& Performing Arts Breadth (BFPA) ..... 3
Total ..... 17
Year 2
BIOL 151 - Biology II (BLS, EL) ..... 4
CHEM 241A - Organic Chemistry I (BPS) ..... 3
GEOG 210 - Physical Geography (BPS). ..... 3
PSYC 111 - Foundations of Psychology (BSS) ..... 3
QR 101, MATH 150 or Higher ..... 3
Health Experience (EH) ..... 3
Total ..... 19
Complete ICTS Test of Academic Proficiency (formerly the Basic Skills Test) for Admission to the Teacher Certification Program
Year 3
BIOL 319-Cell \& Molecular Biology ..... 4
BIOL 365-Ecology (EGC) ..... 4
PHYS 131/131L - College Physics I or PHYS 151 - University Physics and 151L Lab ..... 5
Interdisciplinary Studies (IS) ..... 3
Total ..... 16
Year 4
BIOL 494 - Methods of Teaching Biology ..... 3
BIOL 400-Level Elective (With Lab) ..... 4
Ci 440 - Teaching Reading in the Secondary School ..... 3
EPFR 315 - Educational Psychology ..... 3
Total ..... 18
Spring Semester
Year 1
BIOL 150 - Biology I (BLS, EL) ..... 4
CHEM 121B - General Chemistry II (BPS ..... 4
CHEM 125B - General Chemistry Lab II (EL) ..... 1
ENG 102 - English Composition II. ..... 3
STAT 244 (Recommended), STAT 107, or CMIS 108. ..... 3-4
ACS 101 or 103-Oral Expression .....  3
Total ..... 18-19
Year 2
BIOL 220 - Genetics ..... 4
CHEM 241B - Organic Chemistry II (BPS) ..... 3
CHEM 245 - Organic Chemistry Lab (EL) .....  2
CiED 100 - Introduction to Education .....  2
PHYS 118-Astronomy .....  3
Humanities Breadth (BHUM)/US Cultures (EUSC) ..... 3
Total ..... 17
Year 3
BIOL 327 -Evolution ..... 3
BIOL 340 - Animal Physiology ..... 4
PHYS 132/132L - College Physics II or PHYS 152 - University Physics and 152L Lab ..... 5
SCi 451 - Integrated Science ..... 3
SPE 400 - The Exceptional Child ..... 3
Total ..... 18
Year 4
BIOL 497 - Senior Assignment ..... 2
Ci 315B - Methods of Teaching in the Secondary School ..... 2
Ci 352B - Secondary Student Teaching - Biology ..... 10
Total ..... 14

## Biological Sciences Teacher Licensure (6-12) Program

Admission to a teacher education program is a joint decision by the academic discipline in the College of Arts and Sciences and the School of Education, Health and Human Behavior. Therefore, it is essential that any student desiring teacher licensure meet with an advisor in the School of Education, Health and Human Behavior Student Services for admission to the teacher education program.

## General Education Requirements

Students seeking teacher licensure must meet specific general education and professional education requirements. See the teacher licensure (6-12) section of this catalog for details. An overall grade point average of 2.5 is required for admission to the School of Education, Health and Human Behavior teacher licensure program. Scheduling for the third and fourth years involves coordination between the Biological Science and Curriculum and Instruction departments. Students should contact the Biological Science Department's undergraduate education coordinator for specific curriculum details.

## Minor Requirements in Biological Sciences

Students wishing to complete a minor in biological sciences must take a minimum of 19 hours of biology courses, at least 9 of which must be completed at SIUE, with a grade point average of 2.0 or higher in all biology courses attempted at SIUE. Due to the sequencing of courses, students are advised that it will normally take at least two years to complete the minor.

Courses must include the following: BIOL 150, 151 , and 220 (A grade of C or better is required in each of these courses before proceeding to the next course).

The remaining hours may be completed with any course in biological sciences except 111, 491, 493 or 494. All the courses in this group have a chemistry prerequisite. Please consult the biology advisor for details.

## Graduation Requirements

- Complete all specific program requirements.

■ Complete all University requirements including:

- All general education requirements
- A minimum of 120 credit hours
- At least 30 of which must be completed at SIUE
- At least 60 of which must be completed at a regionally accredited 4 -year institution
- A minimum cumulative grade point average of 2.0
- Bachelor of Arts only: one year of the same foreign language
- File an Application for Graduation by the first day of the term in which you plan to graduate.


## Combined Bachelor of Science and Doctor of Dental Medicine Program (3+4)

A combined arts and sciences dental curriculum that leads to the degrees of bachelor of science and doctor of dental medicine (B.S./D.M.D.) is available for students interested in attending Southern Illinois University Edwardsville for their undergraduate degree. The pre-professional part of the curriculum is completed in just three years on the Edwardsville campus, and the fouryear professional portion at the SIU School of Dental Medicine in Alton, Illinois.

Students interested in the dental program or the combined baccalaureate in biology/doctorate in dentistry (B.S./D.M.D) program should write to the Office of Admissions and Records, Southern Illinois University School of Dental Medicine, 2800 College Avenue, Alton, IL 62002, siue.edu/ dentalmedicine, or phone (618) 474-7170.

## Chemistry

Science Building, Room 2325
siue.edu/artsandsciences/chemistry/

## Distinguished Research Professor

O'Brien, Leah C., Ph.D., 1987, University of Arizona, Tucson
Patrick, Timothy B., Ph.D., 1967, West Virginia University

## Professors

Khazaeli, Sadegh, Ph.D., 1982, Michigan State University
Shaw, Michael J. (Chair), Ph.D., 1993, University of British Columbia
Voss, Eric J., Ph.D., 1992, Northwestern University

## Associate Professors

De Meo, Cristina, Ph.D., 2001, University of Georgia - Athens
Dixon, Robert P., Ph.D., 1993, University of Pittsburgh
Lu, Yun, Ph.D., 1996, Nankai University
Navarre, Edward, Ph.D., 2002, University of Vermont
Shabestary, Nahid, Ph.D., 1984, Michigan State University
Wei, Chin-Chuan, Ph.D., 1998, City University of New York
Wiediger, Susan D., Ph.D., 1999, Rice University

## Assistant Professors

Jones, Myron W., Ph.D., 2010, University of Oklahoma
Luesse, Sarah, Ph.D. 2004, Indiana University

## Program Description

The Department of Chemistry offers several degree programs and active research opportunities in all the major disciplines of chemistry and biochemistry to satisfy diverse career goals of students. The department has well-equipped laboratories; students in each degree program can expect to gain experience in Fourier-transform nuclear magnetic resonance spectrometry, Fouriertransform infrared spectroscopy, high pressure liquid chromatography, atomic absorption spectrometry, mass spectrometry, and ultraviolet/visible spectroscopy. Through advanced coursework, students can gain experience in laser spectroscopy, vacuum line manipulations, high pressure syntheses and high temperature syntheses. Through the department's research programs, students may
gain experience in the most current techniques in each discipline of chemistry and biochemistry.

## Career Opportunities

The undergraduate chemistry and biochemistry curricula prepare students for a variety of careers. Many chemistry majors begin careers in industry or choose to continue their studies with graduate work in chemistry or biochemistry. Others enter schools of medicine, dentistry, veterinary medicine, or pharmacy.
Opportunities to make significant contributions to society are available to chemistry graduates who have additional training in fields such as computer science, environmental science, economics, education, law, library science, marketing, mathematics, and technical writing.

## Degrees and Curricula

Bachelor of Science, Chemistry
Specializations available in the following: ACS Certified Biochemistry ACS Certified Chemistry Biochemistry Forensics Chemistry
Teacher Licensure (6-12) Program
Bachelor of Arts, Chemistry
Specializations available in the following: Biochemistry Forensics Chemistry Medical Science

The Department of Chemistry offers bachelor of science and bachelor of arts degrees. Four curricula leading to the bachelor of science degree include the following: (a) a curriculum that meets the guidelines of the American Chemical Society for the training of professional chemists; (all graduates will be certified by the American Chemical Society as having completed an approved curriculum);
(b) a basic curriculum that offers greater flexibility in the selection of required chemistry courses and electives; (c) a curriculum that leads to certification for teaching high school chemistry, and (d) a curriculum that meets the guidelines of the American Chemical Society for the training of professional biochemists.
The bachelor of arts curricula have fewer chemistry requirements than the bachelor of science curricula.
Three curricula provide opportunities to accommodate a variety of student goals: (a) a flexible curriculum that gives a general introduction to chemistry and which is
supplemented by electives in chemistry or a minor in another field; (b) a more structured curriculum that provides preparation for the medical science professions; (c) a curriculum that provides preparation for the biochemistry professions.

## Admission

High school students who plan to major in one of the degree programs in chemistry should complete at least three years of college preparatory mathematics (two years of algebra and one of geometry) before entering the University. A fourth year of college preparatory mathematics (to include trigonometry) and one year each of biology, chemistry, and physics are strongly recommended.
Admission to a degree program in chemistry requires an application for a major and acceptance by the department. Once admitted, students are formally affiliated with the Chemistry Department and assigned a professional academic advisor. Advisement is mandatory; majors are permitted to register each term only after meeting with their academic advisor. Because the study of science is progressive, students are encouraged to select their major field of study early in their academic careers to ensure orderly progress toward meeting degree requirements. To be admitted, students already enrolled in the University must have a minimum grade point average of 2.4 in science and mathematics courses completed, and a cumulative grade point average of 2.5 or higher in all courses taken at SIUE and successfully completed CHEM 121a with a C or better. Transfer students should have a 2.6 grade point average in science and mathematics courses, and a 2.5 average in courses taken at other colleges and universities. Students who do not meet the GPA requirements may be provisionally accepted and will receive advisement.

## Academic Standards/Retention

Students should show satisfactory academic progress to be retained in a degree program.

Students may be dropped from the program for any of the following circumstances:

- Grade point average of 1.0 or below in any term;
- Cumulative grade point average of less than 2.0 in the major at any time;
- Withdrawal, incomplete, and a combination of failing grades in 50 percent or more of the courses for which the student is registered during two successive terms;
- Any combination of three withdrawal, incomplete, or failing grades in any single required course in the major discipline.

For readmission, students must meet the same admission requirements as students entering the program for the first time.
Grades of C or above in CHEM 121a and CHEM 121b are required of all students before proceeding into any chemistry courses numbered above 199 .
Transfer students, upper division students and others who have not earned a grade of C or above in CHEM 121 will be required to do so as a condition of acceptance as a major in chemistry.

## Transfer

Coursework completed at regionally accredited institutions will be evaluated upon admission to the University. Results of transfer credit evaluations are available to students through CougarNet. For more information regarding transfer, please visit siue.edu/transfer.

## Bachelor of Science/ Master of Science Curriculum

Undergraduates with exceptional academic credentials may be able to earn both the bachelor's degree and the master's degree in chemistry in 5 years $(3+2)$ of study. Admission to this program is based on departmental recommendation to and approval by the Graduate School. Students who are interested in this program option should seek advice from their faculty advisors early in their junior year.

## General Education Requirements

General education requires a minimum of 36 hours of credit and includes completion of 5 Experience requirements. Experience requirements may be satisfied through approved coursework or experiences outside of the classroom. General education courses in the area of physical science are satisfied by required courses in the curriculum. University general education requirements are outlined in the General Education section of this catalog and included in the sample curriculum outline.

## Degree Requirements

Major requirements in all degrees

## Chemistry

$\begin{array}{lll}\text { CHEM 121a,b CHEM 125a,b CHEM } 241 \text { a,b } \\ \text { CHEM } 300 & \text { CHEM } 331 & \text { CHEM } 335\end{array}$

## Mathematics

MATH 150
Computer Science or Statistics Requirements
Choose one of the following:
CS 140 STAT 107 STAT 244* STAT 380* STAT 480
*Either STAT 244 or 380 is required for Biochemistry and Forensics Chemistry Specializations

Complete all requirements noted within a specialization. Students not planning to complete a specialization should complete requirements noted within the General Chemistry requirements section.
General Chemistry Requirements
Bachelor of Science
Chemistry Requirements
CHEM 361 a,b CHEM 365 a,b CHEM 411 CHEM 499
An additional 6 semester hours from the following:

| CHEM 419 | CHEM 431 | CHEM 439 | CHEM 441 |
| :--- | :--- | :--- | :--- |
| CHEM 444 | CHEM 449 | CHEM 451a | CHEM 451 b |
| CHEM 459 | CHEM 469 | CHEM 471 | CHEM 479 |

An additional 3 semester hours from the following:

$$
\begin{array}{llll}
\text { CHEM } 345 & \text { CHEM } 396 & \text { CHEM } 415 & \text { CHEM } 435 \\
\text { CHEM } 455 & \text { CHEM } 496 & &
\end{array}
$$

Electives (17-19 hours)

## Bachelor of Arts

Chemistry Requirements
CHEM 361a CHEM 365a CHEM 499
An additional 9 semester hours from the following:
$\begin{array}{llll}\text { CHEM 361b, } & \text { CHEM 411 } & \text { CHEM } 419 & \text { CHEM } 431 \\ \text { CHEM 439 } & \text { CHEM 441 } & \text { CHEM } 444 & \text { CHEM } 449 \\ \text { CHEM 451a } & \text { CHEM 451b } & \text { CHEM } 469 & \text { CHEM } 471\end{array}$
CHEM 479
An additional 3 semester hours from the following:
$\begin{array}{llll}\text { CHEM } 345 & \text { CHEM 365b } & \text { CHEM } 396 & \text { CHEM } 415 \\ \text { CHEM } 435 & \text { CHEM } 455 & \text { CHEM } 496 & \end{array}$
CHEM 435 CHEM 455 CHEM 496
Math requirements
MATH 152
Physics requirements
PHYS 131 and 131L may be substituted for PHYS 151, 151L, 152 and 152L
Approved Supporting Courses or Minor* (12-21 hours)
Electives ( $0-9$ hours)
One year of the same foreign language
*Students may take a minor or a group of courses from one or more departments that will support their major educational and career objectives. If they choose the second alternative, the curriculum must include at least four supporting courses that
total at least 12 hours of credit; the physics and mathematics courses required for the bachelor of arts degree do not count as supporting courses.
American Chemical Society (ACS) Certified Biochemistry Specialization (B.S.)
Chemistry requirements
CHEM 361 a,b CHEM 365 a,b CHEM 396 CHEM 411
CHEM 415 CHEM 431 CHEM 435 CHEM 451a,b,c
CHEM 455 CHEM 496 CHEM 499
Biology requirements
BIOL $150 \quad$ BIOL $151 \quad$ BIOL220 $\quad$ BIOL 319

## Math requirements

MATH 152
Physics requirements
PHYS 151 PHYS 151L PHYS 152 PHYS 152L
American Chemical Society (ACS) Certified Chemistry Specialization (B.S.)

Chemistry Requirements
CHEM 361 a,b CHEM 365 a,b CHEM 411 CHEM 415
CHEM 431 CHEM 435 CHEM 451a CHEM 499
An additional 3 semester hours from the following:

| CHEM 419 | CHEM 439 | CHEM 441 | CHEM 444 |
| :--- | :--- | :--- | :--- |
| CHEM 449 | CHEM 451 b | CHEM 459 | CHEM 469 |
| CHEM 471 | CHEM 479 |  |  |

An additional 2 semester hours from the following: CHEM 345 CHEM 396 CHEM 455 CHEM 496

## Math requirements

MATH 152
Physics requirements
PHYS 151 PHYS 151L PHYS 152 PHYS 152L

## Biochemistry Specialization (B.S.)

Chemistry Requirements

| CHEM 410 | CHEM 431 | CHEM 435 | CHEM 451a,b,c |
| :--- | :--- | :--- | :--- |
| CHEM 455 | CHEM 461a,b | CHEM 465 | CHEM 499 |

An additional 4 semester hours from the following
CHEM 396 CHEM 446 CHEM 449 CHEM 459
CHEM 471 CHEM 479 CHEM 496 BIOL 456
Biology requirements
BIOL 150 BIOL 151 BIOL220 BIOL319
Physics requirements
PHYS 151 and 151L, PHYS 152 and 152L, or PHYS 131 and 131L

## Forensics Specialization (B.S.)

Chemistry Requirements
CHEM 361 a,b CHEM 365 a,b CHEM 451a CHEM 431
CHEM 435 CHEM 439 CHEM 471 CHEM 499

## Biology requirements

BIOL 150 BIOL 151 BIOL220 BIOL319
BIOL490
Environmental Sciences requirements
ENSC 428 ENSC 428L

Math requirements
MATH 152

## Physics requirements

PHYS 151 PHYS 151L PHYS 152 PHYS 152L
Forensics Specialization (B.A.)
Chemistry Requirements
CHEM 361a CHEM 365a CHEM 451a CHEM 431
CHEM435 CHEM439 CHEM 471 CHEM 499
Biology requirements
BIOL 150 BIOL $151 \quad$ BIOL $220 \quad$ BIOL 319
BIOL 490
Environmental Sciences requirements
ENSC 428 ENSC 428L
Math requirements
MATH 152
Physics requirements
PHYS 151/151L and PHYS 152/152L or PHYS 131/131L and 132/132L

Biochemistry Specialization (B.A.)
Chemistry Requirements

| CHEM 361a | CHEM 365a | CHEM 451a\&b | CHEM 455 |
| :--- | :--- | :--- | :--- |
| CHEM 459 | CHEM 499 |  |  |

An additional 3 semester hours from the following:

| CHEM 361b | CHEM 411 | CHEM 419 | CHEM 431 |
| :--- | :--- | :--- | :--- |
| CHEM439 | CHEM441 | CHEM 444 | CHEM 449 |
| CHEM469 | CHEM 471 | CHEM 479 |  |

An additional 3 semester hours from the following:

| CHEM 345 | CHEM 365b | CHEM 396 | CHEM 415 |
| :--- | :--- | :--- | :--- |
| CHEM 435 | CHEM 455 | CHEM 496 |  |

## Biology requirements

BIOL $150 \quad$ BIOL $151 \quad$ BIOL $220 \quad$ BIOL 319

## Math requirements

MATH 152
Physics requirements
PHYS 151/151L and PHYS 152/152L or PHYS 131/131L and 132/132L (BA)
Electives (9-11 hours)
Additional semester hours from the following biology courses are recommended: BIOL 335, 340

Medical Science Specialization (B.A.)
Chemistry Requirements
CHEM 361a CHEM 365a CHEM 451a\&b CHEM 499
An additional 3 semester hours from the following:

| CHEM 361b | CHEM 411 | CHEM 419 | CHEM 431 |
| :--- | :--- | :--- | :--- |
| CHEM 439 | CHEM 441 | CHEM 444 | CHEM 449 |
| CHEM 469 | CHEM 471 | CHEM 479 |  |

An additional 3 semester hours from the following:
CHEM 345 CHEM 365b CHEM 396 CHEM 415
CHEM 435 CHEM 455 CHEM 496

Biology Requirements
Biology 150
Additional 6 semester hours from the following: BIOL 151 BIOL $220 \quad$ BIOL $319 \quad$ BIOL 335 BIOL 340

## Math requirements

MATH 152

## Physics requirements

PHYS 151/151L and PHYS 152/152L or PHYS 131/131L and 132/132L

Electives (9-11 hours)
Additional chemistry and biology recommended

## Chemistry Teacher Licensure (6-12) Program

Admission to a teacher education program is a joint decision by the academic discipline in the College of Arts and Sciences and the School of Education, Health and Human Behavior. Therefore, it is essential that any student desiring teacher certification meet with an advisor in the School of Education, Health and Human Behavior Student Services for admission to the teacher education program.

## General Education Requirements

The general education curriculum requires 36 hours of credit. Students seeking teacher certification must meet specific general education and professional education requirements. See the teacher certification (K-12) section of this catalog for details. An overall grade point average of 2.5 is required for admission to the School of Education, Health and Human Behavior teacher certification program. Scheduling for the third and fourth years involves coordination between the Chemistry and Teacher Certification departments. Students should contact the Chemistry Department's undergraduate education coordinator for specific curriculum details.

```
BIOL }150\mathrm{ BIOL }151\mathrm{ CHEM 121a,b CHEM 125a,b
CHEM 241a,b CHEM 245 CHEM 300 CHEM 331
CHEM335 CHEM361a CHEM 365a CHEM 451a
CHEM494 CHEM499 MATH 150 MATH 152
PHYS 151 and 151L* PHYS 152 and 152L*
SCi 451 STAT 107, 244, 380 or 480
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Additional 3 semester hours from chemistry courses numbered 300 or above

Professional Education Requirements ( 28 hours)
See Requirements for Teacher Certification (K-12)
*PHYS 131, 131L and 132, 132L may be substituted
Sample Curriculum for the Bachelor of Arts, Chemistry, Specialization in Biochemistry

Year 1
CHEM 121a-General Chemistry I (BPS) . . . . . . . . . . . . . . . . . . . 4
CHEM 125a-General Chemistry Lab I (EL) . . . . . . . . . . . . . . . . . 1
ENG 101 -Composition I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
MATH 150 - Calculus I (FQR) . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
ACS 103 - Interpersonal Communication (EUSC) . . . . . . . . . . . . 3
Total .............................................................. . . . 16
Year 2
CHEM 241a - Organic Chemistry I (BPS) ..... 3
CHEM 331 - Quant Analytical Chemistry ..... 3
CHEM 335 - Quant Analytical Chem Lab ..... 1
PHYS 131/131L or PHYS 151/151L (BPS, EL) ..... 5
BIOL 151 - Intro to Biological Sciences II (BLS, EL) ..... 4
RA 101 - Reasoning \& Argumentation ..... 3
Total ..... 19
Year 3
CHEM 300 - Professionalism in Science ..... 1
CHEM 361a - Physical Chemistry ..... 3
CHEM 365a - Physical Chemistry Lab ..... 2
CHEM 451a - Biochemistry (BLS) ..... 3
BIOL 319-Cell \& Molecular Biology (EL) ..... 4
Foreign Language 101 (BICS) ..... 4
Total ..... 17
Year 4
CHEM Lecture Elective ..... 3
CHEM Lab Elective ..... 1-2
CHEM 459 - Special Topics in Biochemistry ..... 3
STAT 244 or 380 (BICS) ..... 3-4
Social Science Breadth (BSS) ..... 3
Fine \& Performing Arts or Humanities .....  3
Total ..... 16-18
Spring Semester
Year 1
CHEM 121b - General Chemistry II (BPS) ..... 4
CHEM 125b - General Chemistry Lab II (EL) ..... 1
ENG 102 - Composition II. ..... 3
MATH 152 - Calculus II (BPS) ..... 5
BIOL 150 - Intro to Biological Sciences I (BLS, EL)
17
Total
Year 2
CHEM 241b - Organic Chemistry II (BPS) ..... 3
CHEM 245 - Organic Chemistry Lab (EL) ..... 2
PHYS 132/132L or PHYS 152/152L (BPS, EL) ..... 5
BIOL 220 - Genetics (BLS, EL) ..... 4
Humanities Breadth (BHUM). ..... 3
Total ..... 17
Year 3
CHEM 451b - Biochemistry ..... 3
CHEM 455 - Experimental Methods in Biochem ..... 2
CHEM Lab Elective ..... 2
Fine \& Performing Arts Breadth (BFPA) ..... 3
Foreign Language 102 (EGC) ..... 4
Total ..... 14
Year 4
CHEM 499 - Senior Assignment ..... 0
BIOL or CHEM/Health Experience (EH) ..... 3
Fine \& Performing Arts or Humanities ..... 3
Interdisciplinary Studies (IS) ..... 3
Fine \& Performing Arts or Humanities ..... 3
Fine \& Performing Arts or Humanities ..... 3
Total ..... 15
Sample Curriculum for the Bachelor of Science, Chemistry, Specialization in Biochemistry - ACS Certified
Fall Semester
Year 1
CHEM 121a-General Chemistry I (BPS) ..... 4
CHEM 125a-General Chemistry Lab I(EL) ..... 1
ENG 101 - Composition I ..... 3
MATH 150 -Calculus I (FQR) ..... 5
ACS 101 or 103- Oral Expression. ..... 3
Total ..... 16
Year 2
CHEM 241a-Organic Chemistry I (BPS) ..... 3
CHEM 331 - Quant Analytical Chemistry ..... 3
CHEM 335-Quant Analytical Chemistry Lab ..... 1
PHYS 151 - University Physics I (BPS) ..... 4
PHYS 151L - University Physics Lab I (EL) ..... 1
BIOL 150 - Intro to Biological Sciences I (BLS, EL) ..... 4
Total ..... 16
Spring Semester
Year 1
CHEM 121b - General Chemistry II (BPS) ..... 4
CHEM 125b - General Chemistry Lab II (EL) ..... 1
ENG 102 - Composition II. ..... 3
MATH 152 - Calculus II (BPS). ..... 5
RA 101 - Reasoning \& Argumentation or PHIL 213 ..... 3
Total ..... 16
Year 2
CHEM 241b - Organic Chemistry II (BPS) ..... 3
CHEM 245 - Organic Chemistry Lab (EL) ..... 2
PHYS 152 - University Physics II (BPS) ..... 4
PHYS 152L - University Physics Lab II (EL) ..... 1
BIOL 151 - Intro to Biological Sciences II (BLS, EL) ..... 4
Total ..... 14

## Sample Curriculum for the Bachelor of Science, Chemistry, Specialization in Biochemistry - ACS Certified cont.

Fall Semester Spring Semester
Year 3
CHEM 300 - Professionalism in Science ..... 1
CHEM 361a - Physical Chemistry ..... 3
CHEM 365a - Physical Chemistry Lab ..... 2
CHEM 451a - Biochemistry ..... 3
BIOL 319 - Cell \& Molecular Biology .....
Fine \& Performing Arts Breadth (BFPA) ..... 3
Total ..... 16
Year 4
CHEM 411 - Inorganic Chemistry ..... 3
CHEM 415 - Inorganic Chemistry Lab. ..... 2
CHEM 451c - Biochemistry ..... 3
CHEM 496 - Chemical Problems ..... 2
STAT 244 or 380 (BICS) ..... 3-4
Total ..... 13-14
Year 3
CHEM 361b - Physical Chemistry ..... 3
CHEM 365b - Physical Chemistry Lab ..... 1
CHEM 396 - Introduction to Research ..... 2
CHEM 451b - Biochemistry ..... 3
CHEM 455 - Experimental Methods in Biochemistry. ..... 2
BIOL 220 - Genetics (BLS, EL) ..... 4
Humanities Breadth (BHUM)/Unites States Cultures (EUSC) ..... 3
Total ..... 18
Year 4
CHEM 431 - Instrumental Analysis ..... 3
CHEM 435 - Instrumental Analysis Lab ..... 1
CHEM 499 - Senior Assignment ..... 0
Health Experience (EH) ..... 3
Interdisciplinary Studies (IS) ..... 3
Social Science Breadth (BSS)/Global Cultures (EGC) ..... 3
Total ..... 13

## Sample Curriculum for the Bachelor of Science in Chemistry, Specialization in Biochemistry

Fall SemesterYear 1
CHEM 121a-General Chemistry (BPS) ..... 4
CHEM 125a-General Chemistry Lab (EL) ..... 1
ENG 101 -Composition ..... 3
RA 101 - Reasoning and Argumentation ..... 3
ACS 103 -Interpersonal Communication (EUSC) ..... 3
Elective ..... 2
Total ..... 16
Year 2
BIOL 151 - Intro to Biological Sciences II (BLS, EL) ..... 4
CHEM 241a - Organic Chemistry ..... 3
PHYS 131 - College Physics I: Mechanics \& Heat ..... 4
PHYS 131L - College Physics I Lab ..... 1
Social Sciences (BSS)/Global Culture (EGC) ..... 3
Total ..... 15
Year 3
BIOL 220 - Genetics (BLS, EL) ..... 4
CHEM 300 - Professionalism ..... 1
CHEM 331 - Quant Analytical Chemistry ..... 3
CHEM 335-QUANT Analytical Chemistry Lab ..... 1
CHEM 451a - Biochemistry ..... 3
Interdisciplinary Studies (IS) ..... 3
Total ..... 15
Year 4
CHEM 410 - Bio-Inorganic Chemistry ..... 3
CHEM 451c - Biochemistry ..... 3
CHEM 461a - BioPhysical Chemistry ..... 3
CHEM 465-BioPhysical Chemistry Lab ..... 2
CHEM Elective ..... 2
Total ..... 13
Spring Semester
Year 1
BIOL 150 - Intro to Biological Sciences I (BLS, EL) ..... 4
CHEM 121b - General Chemistry (BPS) ..... 4
CHEM 125b - General Chemistry Lab (EL) ..... 1
ENG 102 -Composition ..... 3
MATH 150 -Calculus I ..... 5
Total ..... 17
Year 2
CHEM 241b - Organic Chemistry (BPS) ..... 3
CHEM 245 - Organic Chemistry Lab (EL) ..... 2
Health Experience (EH). ..... 3
PHYS 132-College Phys II: Electricity, Magnetism \& Optics ..... 4
PHYS 132L - College Physics II Lab ..... 1
Elective ..... 3
Total ..... 16
Year 3
BIOL 319 - Cell \& Molecular Biology ..... 4
CHEM 451b - Biochemistry ..... 3
CHEM 455 - Biochemistry Lab .....  2
STAT 244 - Statistics (BICS) ..... 4
Fine \& Performing Arts Breadth (BFPA) ..... 3
Total ..... 16
Year 4
CHEM 461b - BioPhysical Chemistry II ..... 3
CHEM 431 - Instrumental Analysis ..... 3
CHEM 435 - Instrumental Analysis Lab ..... 1
CHEM 499 - Senior Assignment ..... 0
CHEM Elective ..... 2
Humanities Breadth (BHUM) ..... 3
Total ..... 12
Sample Curriculum for the Bachelor of Science in Chemistry, ACS Certified Chemistry
Fall Semester
Year 1
CHEM 121a-General Chemistry (BPS) ..... 4
CHEM 125a-General Chemistry Lab (EL) ..... 1
ENG 101 -Composition ..... 3
MATH 150 - Calculus I (FQR) ..... 5
ACS 101 or 103-Oral Expression ..... 3
Total ..... 16
Year 2
CHEM 331 - Quantitative Analytical Chemistry ..... 3
CHEM 335 - Quantitative Analytical Chem Lab ..... 1
CHEM 241a - Organic Chemistry ..... 3
PHYS 151 - University Physics (BPS) ..... 4
PHYS 151L - University Physics Lab (EL) ..... 1
Fine \& Performing Arts Breadth (BFPA) ..... 3
Total ..... 15
Year 3
CHEM 300 - Professionalism in Science ..... 1
CHEM 361a - Physical Chemistry ..... 3
CHEM 365a - Physical Chemistry Lab ..... 2
CHEM 451a - Biochemistry ..... 3
Humanities Breadth (BHUM) ..... 3
Interdisciplinary Studies (IS) ..... 3
Total ..... 15
Year 4
CHEM 411 - Inorganic Chemistry ..... 3
CHEM 415 - Inorganic Chemistry Lab ..... 2
Elective ..... 3
Elective ..... 3
Elective ..... 3
Total ..... 14
Spring Semester
Year 1
CHEM 121b - General Chemistry (BPS).4
CHEM 125b - General Chemistry Lab (EL) ..... 1
ENG 102-Composition ..... 3
MATH 152 - Calculus II (BPS) ..... 5
RA 101 - Reasoning \& Argumentation or PHIL 213
16
Total
Year 2
CHEM 241 b - Organic Chemistry (BPS) ..... 3
CHEM 245 - Organic Chemistry Lab (EL) ..... 2
STAT 107, 244 or 380 (BICS) ..... 3-4
PHYS 152 - University Physics (BPS) ..... 4
PHYS 152L - University Physics Lab (EL) ..... 1
Life Science Breadth (BLS) .....  3
Total ..... 16-17
Year 3
CHEM 361b - Physical Chemistry ..... 3
CHEM 365b - Physical Chemistry Lab ..... 1
CHEM Elective ..... 3
Social Science Breadth (BSS)/Global Culture (EGC) ..... 3
United States Culture (EUSC). ..... 3
Total ..... 13
Year 4
Year 4
Year 4
Year 4
Year 4
Year 4
Year 4
Year 4
Year 4
CHEM 431 - Instrumental Analysis
CHEM 431 - Instrumental Analysis
CHEM 431 - Instrumental Analysis
CHEM 431 - Instrumental Analysis
CHEM 431 - Instrumental Analysis
CHEM 431 - Instrumental Analysis
CHEM 431 - Instrumental Analysis
CHEM 431 - Instrumental Analysis
CHEM 431 - Instrumental Analysis ..... 3 ..... 3 ..... 3 ..... 3 ..... 3 ..... 3 ..... 3 ..... 3 ..... 3
CHEM 435 - Instrumental Analysis Lab
CHEM 435 - Instrumental Analysis Lab
CHEM 435 - Instrumental Analysis Lab
CHEM 435 - Instrumental Analysis Lab
CHEM 435 - Instrumental Analysis Lab
CHEM 435 - Instrumental Analysis Lab
CHEM 435 - Instrumental Analysis Lab
CHEM 435 - Instrumental Analysis Lab
CHEM 435 - Instrumental Analysis Lab ..... 1 ..... 1 ..... 1 ..... 1 ..... 1 ..... 1 ..... 1 ..... 1 ..... 1
CHEM 499 - Senior Assignment
CHEM 499 - Senior Assignment
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CHEM 499 - Senior Assignment
CHEM 499 - Senior Assignment
CHEM 499 - Senior Assignment
CHEM 499 - Senior Assignment
CHEM 499 - Senior Assignment ..... 0 ..... 0 ..... 0 ..... 0 ..... 0 ..... 0 ..... 0 ..... 0 ..... 0
CHEM Elective
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CHEM Elective .....  2 .....  2 .....  2 .....  2 .....  2 .....  2 .....  2 .....  2 .....  2
Health Experience (EH)
Health Experience (EH)
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Health Experience (EH)
Health Experience (EH)
Health Experience (EH)
Health Experience (EH)
Health Experience (EH)
Health Experience (EH) ..... 3 ..... 3 ..... 3 ..... 3 ..... 3 ..... 3 ..... 3 ..... 3 ..... 3
Elective
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Elective ..... 3 ..... 3 ..... 3 ..... 3 ..... 3 ..... 3 ..... 3 ..... 3 ..... 3
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Elective. ..... 3 ..... 3 ..... 3 ..... 3 ..... 3 ..... 3 ..... 3 ..... 3 ..... 3
Total
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Total ..... 15 ..... 15 ..... 15 ..... 15 ..... 15 ..... 15 ..... 15 ..... 15 ..... 15
Sample Curriculum for the Bachelor of Arts, Chemistry, Specialization in Forensics Chemistry

Fall Semester

Year 1
CHEM 121a-General Chemistry I (BPS) ..... 4
CHEM 125a-General Chemistry Lab I(EL) ..... 1
ENG 101 - Composition I ..... 3
ACS 101 or 103-Oral Expression ..... 3
MATH 150 -Calculus I (FQR) ..... 5
Total ..... 16
Year 2
CHEM 241a Organic Chemistry I (BPS) ..... 3
CHEM 331 - Quant Analysis Chemistry ..... 3
CHEM 335 - Quant Analysis Chem Lab ..... 1
PHYS 131/131L or PHYS 151/151L (BPS, EL) ..... 5
BIOL 151 - Intro to Biological Science II (BLS, EL) ..... 4
Total ..... 16
Spring Semester
Year 1
CHEM 121b - General Chemistry II (BPS) ..... 4
CHEM 125b - General Chemistry Lab II (EL) ..... 1
ENG 102-Composition II ..... 3
MATH 152 - Calculus II (BPS) ..... 5
BIOL 150 - Intro to Biological Science I (BLS, EL) ..... 4
RA 101 - Reasoning and Argumentation ..... 3
Total ..... 20
Year 2
CHEM 241b - Organic Chemistry II (BPS) ..... 3
CHEM 245 - Organic Chemistry Lab (EL) ..... 2
PHYS 132/132L or PHYS 152/152L (BPS, EL) ..... 5
BIOL 220 - Genetics ..... 4
Humanities Breadth (BHUM) ..... 3
Total ..... 17

## Sample Curriculum for the Bachelor of Arts, Chemistry, Specialization in Forensics Chemistry cont.

Fall SemesterYear 3
CHEM 300 - Professionalism in Science ..... 1
CHEM 361a-Physical Chemistry ..... 3
CHEM 365a - Physical Chemistry Lab ..... 2
CHEM 451a - Biochemistry ..... 3
BIOL 319 - Cell \& Molecular Biology ..... 4
Foreign Language 101 (BICS) ..... 4
Total ..... 17
Year 4
CHEM 471 ..... 3
ENSC 428 -Environmental Analysis ..... 3
ENSC 428L - Environmental Analysis Lab ..... 1
STAT 244 or 380 ..... 3-4
Fine \& Performing Arts Breadth (BFPA) ..... 3
Social Science Breadth (BSS)/US Cultures (EUSC) ..... 3
Total ..... 16-17

Fall Semester
Year 1
CHEM 121a-General Chemistry I (BPS) . . . . . . . . . . . . . . . . . . . 4
CHEM 125a-General Chemistry Lab I (EL) . . . . . . . . . . . . . . . . . 1
ENG 101 -Composition I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
MATH 150 -Calculus I(FQR) . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
ACS 101 or 103 - Oral Expression . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16

Year 2
CHEM 241a Organic Chemistry I (BPS) . . . . . . . . . . . . . . . . . . . . 3
CHEM 331 - Quant Analysis Chemistry . . . . . . . . . . . . . . . . . . . 3
CHEM 335 - Quant Analysis Chem Lab . . . . . . . . . . . . . . . . . . . . 1
PHYS 151 - University Physics I (BPS) . . . . . . . . . . . . . . . . . . . . 4
PHYS 151L - University Physics Lab I (EL) . . . . . . . . . . . . . . . . . 1
BIOL 151 - Intro to Biological Science II (BLS, EL) . . . . . . . . . . . . 4
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16
Year 3
CHEM 300 - Professionalism in Science . . . . . . . . . . . . . . . . . . . 1
CHEM 361a-Physical Chemistry. . . . . . . . . . . . . . . . . . . . . . . . 3
CHEM 365a - Physical Chemistry Lab . . . . . . . . . . . . . . . . . . . . . 2
CHEM 451a - Biochemistry . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
BIOL 319 - Cell \& Molecular Biology . . . . . . . . . . . . . . . . . . . . . . . 4
Total ................................................................. . . 13

Year 4
CHEM 471 - Principles of Toxicology. . . . . . . . . . . . . . . . . . . . . . 3
ENSC 428 - Environmental Analysis . . . . . . . . . . . . . . . . . . . . . . 3
ENSC 428L - Environmental Analysis Lab. . . . . . . . . . . . . . . . . . 1
STAT 244 or 380 (BICS) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3-4
Social Science Breadth (BSS)/US Culture (EUSC) . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .13-14
Spring Semester
Year 3
CHEM 431 - Instrumental Analysis ..... 3
CHEM 435 - Instrumental Analysis Lab ..... 1
BIOL 490 - Forensics Biology ..... 3
Fine \& Performing Arts or Humanities ..... 3
Foreign Language 102 (EGC) ..... 4
Fine \& Performing Arts or Humanities ..... 3
Total ..... 17
Year 4
CHEM 499 - Senior Assignment ..... 0
CHEM 439 - Forensics Chemistry ..... 3
Interdisciplinary Studies (IS) ..... 3
Fine \& Performing Arts or Humanities ..... 3
Fine \& Performing Arts or Humanities ..... 3
Health Experience (EH) .....  3
Total ..... 15

# Sample Curriculum for the Bachelor of Science, Chemistry, Specialization in Forensics Chemistry 

Spring Semester
Year 1
CHEM 121b - General Chemistry II (BPS) ..... 4
CHEM 125b - General Chemistry Lab II (EL) ..... 1
ENG 102-Composition II ..... 3
MATH 152 - Calculus II. ..... 5
BIOL 150 - Intro to Biological Science I (BLS) ..... 4
RA 101 - Reasoning and Argumentation ..... 3
Total ..... 20
Year 2
CHEM 241b - Organic Chemistry II (BPS) ..... 3
CHEM 245 - Organic Chemistry Lab (EL) ..... 2
PHYS 152 - University Physics II (BPS) ..... 4
PHYS 152L - University Physics Lab II (EL) ..... 1
BIOL 220 - Genetics ..... 4
Total ..... 14
Year 3
CHEM 361b - Physical Chemistry ..... 3
CHEM 365b - Physical Chemistry Lab ..... 1
BIOL 490 - Forensics Biology ..... 3
Fine \& Performing Arts Breadth (BFPA) ..... 3
Health Experience (EH). ..... 3
Elective ..... 1
Total ..... 14
Year 4
CHEM 431 - Instrumental Analysis ..... 3
CHEM 435 - Instrumental Analysis Lab ..... 2
CHEM 499 - Senior Assignment .....
CHEM 439 - Forensics Chemistry ..... 3
Humanities Breadth (BHUM)/Global Cultures (EGC). ..... 3
Interdisciplinary Studies (IS) ..... 3
Total ..... 14
Sample Curriculum for the Bachelor of Arts in Chemistry, Basic
Fall Semester
Year 1
CHEM 121a-General Chemistry I (BPS) ..... 4
CHEM 125a-General Chemistry Lab I (EL) ..... 1
ENG 101 -English Composition I ..... 3
MATH 150 - Calculus I (FQR) ..... 5
ACS 101 or 103-Oral Expression ..... 3
Total ..... 16
Year 2
CHEM 241a - Organic Chemistry I (BPS) ..... 3
CS 140 or STAT 107, 244, 380, or 480 ..... 3-4
PHYS 151/151L - University Physics I or PHYS 131/131L - CollegePhysics I (BPS, EL)5
Fine \& Performing Arts or Humanities Breadth (BFPA) .....  3
Total ..... 14-15
Year 3
CHEM 300 - Professionalism in Science ..... 1
CHEM 331 - Quant Analytical Chemistry ..... 3
CHEM 335 - Quant Analytical Chem Lab ..... 1
CHEM 361a-Physical Chemistry .....  3
CHEM 365a - Physical Chemistry Lab ..... 2
Foreign Language 101 (BICS) ..... 4
Total ..... 14
Year 4 Year 4
CHEM 499 - Senior Assignment ..... 0
CHEM Elective ..... 3
Life Science (BLS). ..... 3
Fine \& Performing Arts or Humanities ..... 3
Humanities Breadth (BHUM) ..... 3
Minor/Elective ..... 2
Total ..... 14
Spring Semester
Year 1
CHEM 121b - General Chemistry II (BPS)4
CHEM 125b - General Chemistry Lab II (EL) ..... 1
ENG 102 - English Composition II. ..... 3
MATH 152 - Calculus II (BPS). ..... 5
RA 101 - Reasoning and Argumentation or PHIL 213 ..... 16
Total
Year 2
CHEM 241b - Organic Chemistry (BPS) ..... 3
CHEM 245 - Organic Chemistry Laboratory (EL) ..... 2
PHYS 152/152L - Univ. Physics II or PHYS 132/132L - College Physics II (BPS, EL) ..... 5
Health Experience (EH) .....  3
Minor/Elective ..... 2-3
Total ..... 15-16
Year 3
CHEM Elective ..... 3
Foreign Language 102 (EGC) ..... 4
Interdisciplinary Studies (IS) ..... 3
Fine \& Performing Arts or Humanities .....  3
Fine \& Performing Arts or Humanities ..... 3
Total ..... 16
CHEM Elective ..... 3
CHEM Elective ..... 2
Social Science Breadth (BSS) ..... 3
Fine \& Performing Arts or Humanities ..... 3
United States Cultures Experience (EUSC) ..... 3
Total ..... 14
Sample Curriculum for the Bachelor of Science in Chemistry, Basic
Fall Semester
Year 1
CHEM 121a-General Chemistry I (BPS) ..... 4
CHEM 125a-General Chemistry Lab I (EL) ..... 1
ENG 101 -English Composition I ..... 3
MATH 150 -Calculus I (FQR) ..... 5
ACS 101 or 103-Oral Expression ..... 3
Total ..... 16
Year 2
CHEM 241a - Organic Chemistry (BPS) ..... 3
CHEM 331 - Quant Analytical Chemistry ..... 3
CHEM 335 - Quant Analytical Chem Lab ..... 1
PHYS 151 - University Physics (BPS) ..... 4
PHYS 151L - University Physics Lab (EL) ..... 1
Fine \& Performing Arts Breadth (BFPA) ..... 3
Total ..... 15
Spring Semester
Year 1
CHEM 121b - General Chemistry II (BPS) ..... 4
CHEM 125b - General Chemistry Lab II (EL ..... 1
ENG 102 - English Composition II ..... 3
MATH 152 - Calculus II (BPS). ..... 5
RA 101 - Reasoning \& Argumentation or PHIL 213 ..... 3
Total ..... 16
Year 2
CHEM 241b - Organic Chemistry (BPS) . ..... 3
CHEM 245 - Organic Chemistry Laboratory (EL) .....  2
STAT 107, 244 or 380 (BICS) ..... 3-4
PHYS 152 - University Physics (BPS). ..... 4
PHYS 152L - University Physics Laboratory (EL) ..... 1
Life Science Breadth (BLS) ..... 3
Total ..... 16-17

## Sample Curriculum for the Bachelor of Science in Chemistry, Basic, cont.

Fall SemesterYear 3
CHEM 300 - Professionalism in Science ..... 1
CHEM 361a - Physical Chemistry. ..... 3
CHEM 365a - Physical Chemistry Lab ..... 2
Humanities Breadth (BHUM) ..... 3
United States Cultures Experience (EUSC) ..... 3
Elective ..... 3
Total ..... 15
Year 4
CHEM 411 - Inorganic Chemistry ..... 3
CHEM Elective ..... 3
Interdisciplinary Studies (IS) ..... 3
Elective ..... 3
Elective ..... 2
Total ..... 14
Fall Semester
Year 1
CHEM 121a-General Chemistry (BPS) ..... 4
CHEM 125a - General Chemistry Laboratory (EL) ..... 1
ENG 101 - Composition ..... 3
MATH 150 - Calculus I (FQR) ..... 5
ACS 101 or 103-Oral Expression ..... 3
Total ..... 16
Year 2
CHEM 241a - Organic Chemistry (BPS) ..... 3
PHYS 151 - University Physics \& PHYS 151L - University PhysicsLab or PHYS 131/131L (BPS, EL)5
BIOL 150 - Intro to Biological Science I (BLS, EL) ..... 4
Fine \& Performing Arts Breadth (BFPA) ..... 3
CS 140 or STAT 107, 244, 380, or 480 ..... 3-4
Total ..... 18-19
Year 3
CHEM 300 - Professionalism in Science ..... 1
CHEM 331 - Quantitative Analytical Chemistry ..... 3
CHEM 335 - Analysis Chemistry Laboratory ..... 1
CHEM 361a - Physical Chemistry. ..... 3
CHEM 365a - Physical Chemistry Laboratory. ..... 2
Foreign Language 101 (BICS) ..... 4
Health Experience (EH) ..... 2
Total ..... 16
Year 4
CHEM 451a - Biochemistry ..... 3
Humanities Breadth (BHUM)/United States Culture (EUSC) ..... 3
BIOL 220 - Genetics or BIOL Elective ..... 3
Interdisciplinary Studies (IS) ..... 3
Total ..... 12
Spring Semester
Year 3
CHEM 361b - Physical Chemistry ..... 3
CHEM 365b - Physical Chemistry Laboratory ..... 1
CHEM Elective ..... 3
Social Science Breadth (BSS)/Global Culture (EGC) . . . . 3 Health
Experience (EH) ..... 3
Elective ..... 3
Total ..... 16
Year 4
CHEM 499 - Senior Assignment ..... 0
CHEM Elective ..... 3
Elective ..... 3
Elective ..... 3
Elective ..... 3
Total ..... 12
Sample Curriculum for the Bachelor of Arts in Chemistry, Medical Science
Spring Semester
Year 1
CHEM 121b - General Chemistry (BPS) ..... 4
CHEM 125b - General Chemistry Laboratory (EL) ..... 1
ENG 102 -Composition ..... 3
MATH 152 - Calculus II (BPS) ..... 5
RA 101 - Reasoning and Argumentation ..... 3
Total ..... 16
Year 2
CHEM 241 b - Organic Chemistry (BPS) ..... 3
CHEM 245 - Organic Chemistry Lab (EL) ..... 2
PHYS 152 - University Physics \& PHYS 152L - University Physics Lab or PHYS 132/132 (BPS, EL) ..... 5
Social Science Breadth (BSS) ..... 3
Fine \& Performing Arts or Humanities ..... 3
Total ..... 16
Year 3
CHEM Elective+ ..... 3
Foreign Language 102 (EGC) ..... 4
Fine \& Performing Arts or Humanities ..... 3
BIOL 151 (BLS, EL) or Approved BIOL Elective ..... 4
Total ..... 14
Year 4
CHEM 451b - Biochemistry ..... 3
CHEM 499 - Senior Assignment ..... 0
CHEM Elective ..... 3
Fine \& Performing Arts or Humanities ..... 3
Fine \& Performing Arts or Humanities ..... 3
Total ..... 12

## Sample Curriculum for the Bachelor of Science in Chemistry Teacher Certification

Fall Semester

Year 1
CHEM 121a-General Chemistry I (BPS) ..... 4
CHEM 125a-General Chemistry Labl (EL) ..... 1
ENG 101 - English Composition I ..... 3
RA 101 - Reasoning \& Argumentation or PHIL 213 ..... 3
United States Cultures Experience (EUSC) ..... 3
ACS 101 or 103-Oral Expression ..... 3
Total ..... 17
Year 2
CHEM 241a-Organic Chemistry I (BPS) ..... 3
BIOL 151 - Intro to Biological Science II ..... 4
MATH 152 - Calculus II (BPS) ..... 5
PHYS 151 - University Physics I (BPS) ..... 4
PHYS 151L - University Physics Lab I (EL) ..... 1
Total ..... 17
Complete ILTS Test of Academic Proficiency (formerly the Basic Skills
Test) for Admission to the Teacher Certification Program
Year 3
CHEM 300 - Professionalism in Science ..... 1
CHEM 331 - Quantitative Analytical Chemistry ..... 3
CHEM 335 - Analytical Chemistry Lab ..... 1
CHEM 361a - Physical Chemistry ..... 3
CHEM 365a - Physical Chemistry Lab ..... 2
CHEM 451a - Biochemistry ..... 3
Fine \& Performing Arts Breadth (BFPA) ..... 3
Total ..... 16
Year 4
CHEM 494 - Secondary Chemistry Teaching Methods . . . . . . . . 3
Ci 315a - Methods of Teaching in Secondary Schools ..... 2
Ci 440 - Teaching Reading in Secondary School ..... 3
EPFR 315-Educational Psychology ..... 3
EPFR 320 - Foundations of Ed in a Multicultural Society. ..... 3
SPE 400 - The Exceptional Child ..... 3
Total ..... 17
Must pass Content Test before Student Teaching
Chemistry Minor Requirements*A minor in chemistry requires 24 hours with a grade pointaverage of 2.0 or higher as follows:
CHEM 121a,b CHEM 125a,b CHEM 241a,b ..... CHEM 245
Additional 6 semester hours from chemistry courses numbered300 or aboveNote: at least 6 of the 24 hours must be SIUE credit.
Combined Bachelor in Chemistry and Doctor of Dental Medicine Program (3+4)

A combined arts and sciences dental curriculum that leads to a Bachelors Degree in chemistry and doctor of dental medicine (B.A. or B.S./D.M.D.) is available for students interested in attending Southern Illinois University Edwardsville for their undergraduate degree.
Spring Semester
Year 1CHEM 121b-General Chemistry II (BPS)4
CHEM 125b - General Chemistry Lab II (EL) ..... 1
BIOL 150 - Intro to Biological Science I (BLS, EL) ..... 4
ENG 102 - English Composition II. ..... 3
MATH 150 -Calculus I (FQR)
Year 2
CHEM 241b - Organic Chemistry II (BPS) ..... 3
CHEM 245 - Organic Chemistry Lab (EL) .....  2
CIED 100 - Introduction to Education ..... 2
PHYS 152 - University Physics II. ..... 4
PHYS 152L - University Physics Lab II ..... 1
STAT 107, 244, 380, or 480 ..... 3-4
Total ..... 15-16
Year 3
CHEM Elective ..... 3
GEOG 111 - Introductory Geography (BSS, EGC) ..... 3
IS 335, 336, 363, or 364 (recommended). ..... 3
SCl 451 - Integrated Science ..... 3
Humanities (BHUM) ..... 3
Health Experience (EH) ..... 3
Total ..... 18
Apply for Student Teaching by end of Week 2 (See School ofEducation, Health and Human Behavior Student Services Office)
Year 4
CHEM 499 - Senior Assignment ..... 0
Ci 315b - Methods of Teaching in Secondary Schools ..... 2
Ci 352 - Student Teaching - Secondary ..... 10
Total ..... 12
17
Total.

The pre-professional part of the curriculum is completed in three years on the Edwardsville campus, and the four-year professional portion is completed at the SIU School of Dental Medicine in Alton, Illinois. Students interested in the dental program or the combined baccalaureate in chemistry/doctorate in dentistry program should contact the Office of Admissions and Records, Southern Illinois University School of Dental Medicine, 2800 College Avenue, Alton, IL 62002, siue.edu/ dentalmedicine, or phone (618) 474-7170.

## Graduation Requirements

The following requirements must be met in order to obtain a degree in chemistry:

■ Earn a minimum of 120 hours (129 for Chemistry - Teacher Certification) of
acceptable credit with a cumulative grade point average of 2.0 or higher

- Complete at least 12 hours of SIUE credit in major courses numbered above 299 with a cumulative grade point average of 2.0 or above.

■ Earn a GPA of 2.0 or above in all major courses numbered above 299.

- Complete at least 6 hours of SIUE credit in major courses numbered above 299 within 2 years preceding graduation.
No more than eight semester hours of D grades in any combination of science or mathematics courses may be counted toward a major in chemistry.

Credit hours earned through proficiency, transfer, CLEP or from a course, after credit has been received for similar or more advanced course work in the same subject at SIUE or elsewhere, may not be applied toward graduation requirements.

Students admitted to a health professions school at the end of their junior year may transfer appropriate health professions school credits to complete the requirements for a degree in chemistry from SIUE.

## Economics

Alumni Hall Building, Room 3129
siue.edu/business/economicsandfinance

## Distinguished Research Professor

Hafer, Rik W. , Ph.D., 1979,
Virginia Polytechnic Institute and State University

## Professors

Bharati, Rakesh C., Ph.D., 1991, Indiana University - Bloomington
Kutan, Ali M., Ph.D., 1990, Arizona State University
Meisel, John B., Ph.D., 1978, Boston College
Navin, John C., (Dean), Ph.D., 1992, Michigan State University
Associate Professor
Demirer, Riza, Ph.D., 2003, University of Kansas - Lawrence
Evrensel, Ayse Y. (Chair), Ph.D., 1999, Clemson University

## Assistant Professors

Belasen, Ari., Ph.D., 2007, State University of New York at Binghamton
Fu, Xudong, Ph.D., 2008, University of Alabama - Tuscaloosa
Jategaonkar, Shrikant, Ph.D., 2009, University of Arizona - Tucson
Jia, Jingyi (Jane), Ph.D., 2006, Temple University

## Instructors

Beck, H. Lynn., M.S., 1999, Southern Illinois University Edwardsville
Pettit, Mary Anne, M.A., 1977, University of Tennessee
Richards, Warren D., M.S., 1995, Southern Illinois University Edwardsville
Sullivan, Tim S., Ph.D., 1995, University of Maryland
Wolff, Laura A., M.A., 1988, University of Missouri-Columbia

## Program Description

Economics is the study of how economic systems determine what goods and services will be produced, the prices and quantities of those goods and services, and who will receive them. All societies, from the most primitive to the most complex, must have economic systems that determine how scarce resources (land, raw materials, labor, machinery, and physical structures) will be used to satisfy the demands of the people living in those societies. Knowledge of economics is essential to understanding problems ranging from the consumer's decision to purchase one brand of car over another to businesses' decisions as to which goods and services to produce and how to price them.
Economics also helps us to understand the causes of inflation and unemployment, as well as the effects of government budgets or international trade deficits. Lawyers, bankers, managers of large and small businesses, government planners and journalists find economics a useful tool in understanding and solving problems.

Students choosing economics as their major pursue a core program designed to provide a thorough grounding in economic theory followed by more specialized study in such areas as money and banking, labor and industrial relations, international economics, public finance, industrial organization, and antitrust policy. Students develop their programs with the counsel of a faculty advisor.

The Department of Economics and Finance offers two degrees through the College of Arts and Sciences: a bachelor of arts degree with a major in economics, and a bachelor of science degree with a major in economics. Candidates for either degree must complete 34 semester hours in economics and a minor in business, mathematics, any other social science, or another field approved by the student's faculty advisor. Those students planning to enter Ph.D. programs in economics are strongly encouraged to take their minor in mathematics. Students who plan to seek employment upon completion of their bachelor's degree or who plan to pursue graduate work in some other field are advised to elect a minor in a field related to their chosen career.

Students wanting more information may consult the Department of Economics and Finance, Alumni Hall, room 3129. Students also may meet with a faculty advisor in the Department of Economics and Finance.

## Career Opportunities

Economists are employed in all areas of private industry; in federal, state, and local government agencies; in international organizations such as the United Nations and the World Bank; in labor unions; and in colleges and universities. Duties performed by professional economists include market research, forecasting, corporate planning, policy evaluation, economic impact studies, and consulting.

During the past several years, graduates of the SIUE program in economics (including the graduate program) have obtained employment in a variety of institutions. These include commercial banks, brokerage firms, government agencies, public utilities, state legislatures, manufacturing and retailing firms, consulting firms, as well as community colleges and small liberal arts colleges. A number of students have continued their study of economics by entering highly competitive Ph.D. programs. Law school is another popular option.

## Degree Programs

Bachelor of Arts, Economics
Bachelor of Science, Economics

## Program Overview and General Department Information

## Admission/Entrance Requirements

The admission/entrance requirements for a degree in economics are the same as for the University. High school deficiencies and academic development courses must be completed before applying for a major in economics.

## Retention

Students in the bachelor of arts and bachelor of science degree programs are required to maintain a 2.0 grade point average in economics courses.

## Transfer

Any course with a grade of D accepted for transfer credit to SIUE will not count toward a major in economics.

## Degree Requirements

General Education Requirements for the Major
University general education requirements are outlined in the General Education section of this catalog and included in the sample curriculum outline. While fulfilling University general education requirements, all economics majors are required to complete the following: MATH 120 College Algebra (BPS).

Degree Requirements B.A. and B.S.:
ECON 111*
ECON 112*
MS 250*
MS 251*
ECON 301*
ECON 302*
ECON 415* or 417*
ECON Elective
ECON Elective
ECON Elective
ECON Elective
Senior Assignment

* C or higher required.

ECON courses may not be used to meet introductory and distribution general education requirements.

## Sample Curriculum for the Bachelor of Arts in Economics

Fall Semester
Year 1
ECON 111 - Macroeconomics (BSS) ..... 3
ENG 101 - Composition ..... 3
FL 101 (BICS) ..... 4
MATH 120 - College Algebra (BPS) ..... 3
Fine \& Performing Arts (BFPA) ..... 3
Total ..... 16
Year 2
MS 251 - Statistical Analysis for Business Decisions (EL). . . . . . 4 ..... 4
Humanities (BHUM)/United States Culture (EUSC) ..... 3
Life Science (BLS). ..... 3
RA 101 or PHIL 213 ..... 3
Elective
Total ..... 16
Year 3
ECON Elective ..... 3
Fine \& Performing Arts or Humanities ..... 3
Fine \& Performing Arts or Humanities ..... 3
Minor. ..... 3
Minor. ..... 3
Total ..... 15
Year 4
ECON Elective ..... 3
Fine \& Performing Arts or Humanities ..... 3
Elective ..... 3
Elective/Minor ..... 3
Minor* ..... 3
Total ..... 15
Spring Semester
Year 1
ECON 112 - Microeconomics (BSS) ..... 3
ACS 101 or 103 - Oral Expression ..... 3
ENG 102 -Composition ..... 3
Foreign Language 102 (EGC) ..... 4
MS 250 - Math Methods for Bus Analysis ..... 3
Total ..... 16
Year 2
ECON 301 - Intermediate Micro Theory (BSS) ..... 3
ECON 302 - Intermediate Macro Theory (BSS) ..... 3
Health Experience (EH). ..... 3
QR 101 or MATH 150 or Higher ..... 3
Minor. ..... 3
Total ..... 15
Year 3
ECON Elective ..... 3
Interdisciplinary Studies (IS) ..... 3
Fine \& Performing Arts or Humanities ..... 3
Minor. ..... 3
Minor. ..... 3
Total ..... 15
Year 4
ECON 417 - Business Forecasting or ECON 415 -Econometrics ..... 3
Senior Assignment/Exit Requirement .....
ECON Elective ..... 3
Elective ..... 3
Elective ..... 3
Total ..... 12
Sample Curriculum for the Bachelor of Science in EconomicsFall Semester
Year 1
ECON 111 - Macroeconomics (BSS) ..... 3
ENG 101 -Composition ..... 3
MATH 120 - College Algebra (BPS) ..... 3
ACS 101 or 103-Oral Expression ..... 3
Fine \& Performing Arts (BFPA) ..... 3
Total ..... 15
Year 2
MS 251 - Statistical Analysis for Business Decisions (EL) . . . . . . 4 ..... 4
Humanities (BHUM) ..... 3
Info \& Communication in Society (BICS) ..... 3
Life Science (BLS). ..... 3
Lab Experience (EL) ..... 3
Total ..... 16
Year 3
ECON Elective ..... 3
Global Cultures (EGC) ..... 3
Health Experience (EH) ..... 3
Minor. ..... 3
Minor. ..... 3
Total ..... 15
Spring Semester
Year 1
ECON 112 - Microeconomics (BSS) ..... 3
QR 101 or MATH 150 or Higher ..... 3
ENG 102-Composition ..... 3
MS 250 - Math Methods for Bus Analysis ..... 3
RA 101 - Reasoning \& Argumentation ..... 3
Total ..... 15
Year 2
ECON 301 - Intermediate Micro Theory (BSS) ..... 3
ECON 302 - Intermediate Macro Theory (BSS) ..... 3
Elective ..... 3
United States Culture (EUSC) ..... 3
Minor. ..... 3
Total ..... 15
Year 3
ECON Elective ..... 3
Interdisciplinary Studies (IS) ..... 3
Elective ..... 3
Minor. .....  3
Minor. ..... 3
Total ..... 15

Sample Curriculum for the Bachelor of Science in Economics, cont.

| Year 4 |  |
| :---: | :---: |
| ECON Elective |  |
| Elective. | 3 |
| Elective . | 3 |
| Elective . | 2 |
| Minor* | 3 |
| Total | 14 |

## Minor Requirements

Students satisfy the requirements for a minor in economics by taking ECON 111, 112, 301, 302 and two other economics electives at the 300 or 400 level for a total of 18 hours. Students must meet all economics course prerequisites and are required to maintain a 2.0 grade point average in Economics courses. Any course with a grade of D accepted for transfer credit to SIUE will not count toward the minor in economics.

## Graduation Requirements

■ Maintain a 2.0 grade point average in economics courses and a cumulative 2.0 grade point average
■ Complete all economics courses in regularly scheduled classes. (No credit is granted for correspondence or extension courses.)

- Present research projects from ECON 415 or ECON 417 to the faculty

■ Complete a minor as approved by the department
Students who have earned credit for a course required for a degree in economics by taking a proficiency examination, by transferring credit for a course, or by taking the course, may not earn credit for graduation by taking a similar or lower division course in economics at SIUE or at other higher education institutions.

## English

Peck Hall, Room 3206
siue.edu/ENGLISH

## Professors

Aktuna, Seran, Ph.D., 1993, University of Pennsylvania
Berger, Charles, Ph.D., 1977, Yale University
Funk, Allison, M.F.A., 1978, Columbia University
Hardman, Joel, Ph.D., 1994,
University of Pennsylvania
McGee, Sharon James (Chair), Ph.D., 1999, Purdue University
Pendergast, John, Ph.D., 1994, University of Missouri-Columbia

Year 4
ECON 417 - Business Forecasting or ECON 415-Econometrics .
Senior Assignment/Exit Requirement .
ECON Elective
Elective/Minor . . . . . . . . . . . . . . . . . . . . . . . . .
Elective 3
Elective.
Total 5 15

Ramaswamy, Anushiya, Ph.D., 1997, University of Nevada-Reno
Ruff, Nancy, Ph.D., 1987, Princeton University
Savoie, John, Ph.D., 1998, Yale University
Schaefer, Ronald, Ph.D., 1980, University of Kansas
Schmidt, Geoffrey, M.F.A., 1990, University of Alabama
Skoblow, Jeffrey, Ph.D., 1985, John Hopkins University
Springer, Carl, Ph.D., 1984, University of Wisconsin Madison

## Associate Professors

Anderson, Jill, Ph.D., 2006, Michigan State University
DeSpain, Jessica, Ph.D., 2008, University of Iowa
Gurfinkel, Helena, Ph.D., 2007, Tufts University-Medford
Hildebrandt, Kristine, Ph.D., 2003, University of California-Santa Barbara
Johnson, Matthew S.S., Ph.D., 2006, Indiana University-Bloomington
LaFond, Larry, Ph.D., 2001, University of South Carolina-Columbia
Rambsy, Howard, Ph.D., 2004, Pennsylvania State University-University Park
Seltzer, Catherine, Ph.D., 2005, University of North Carolina-Chapel Hill
Vogrin, Valerie, M.F.A., 1991, University of Alabama

## Assistant Professors

Brooks, Tisha, Ph.D., 2013, Tufts University
Cali, Elizabeth, Ph.D., 2014, University of Texas San Antonio
Henderson, Brian, Ph.D., 2010, University of South Carolina-Columbia
Johnson, Heather, Ph.D., 2008, Indiana University
Kryah, Joshua, Ph.D., 2006, University of Nevada Las Vegas

## Program Description

In a world in which technology and economic trends often shift abruptly and dramatically, students prepared in English language and literature will find that the skills they've attained never grow obsolete. They possess
the ultimate in transferrable skills - critical thinking, reasoning, and writing - and they are equipped for change, with the ability to acquire new knowledge and technical skills. Students of English language and literature are experienced in synthesizing complex material and are able to respond with clarity and precision. English majors and minors find their coursework to be both practical and pleasurable. They are able to satisfy their love of reading and intellectual challenge as they encounter some of the greatest works written in (or translated into) English. Students in the program choose from course offerings in a variety of areas, including linguistics and expository, technical, and creative writing. In doing so, they further sharpen the ability to write persuasively for a variety of audiences, expand their understanding of the language, and develop their creativity and cultural awareness.

## Career Opportunities

English majors are well prepared for a tremendous variety of future opportunities. Teaching is just one the possibilities. With a BA in English plus professional education licensure, a graduate is prepared to teach secondary English. Some graduates find positions teaching English overseas. Graduates might also build a career as a freelance writer or editor. English majors are well prepared for graduate and professional studies in business, law, and library science. Virtually every company, agency, institution or entity produces documents, maintains a web presence, and/or utilizes social media, creating a demand for creative and technical writers, researchers, and editors. However, the English major can look well beyond occupations with "writer" and "editor" in the job title, successfully seeking employment in public relations, government relations, development, journalism, and business. Employers are looking for people with critical thinking skills and the ability to communicate effectively to train for specialized positions. Because the job market is competitive, students will want to take care to develop complementary skills and experience through minor coursework, volunteering, and internships.

## Degree Programs

Bachelor of Arts, English
Professional Educator Licensure (Grades 6-12) Program

## Minors

Literature
English/Linguistics
English/Creative Writing

## Program Overview and General Department Information

## Admission

To be admitted to the Bachelor of Arts program, students must:
■ Complete all Academic Development courses required by the University.
■ Complete any courses required to address high school deficiencies.

- Attain a cumulative grade point average of at least 2.0 (on a 4.0 scale).


## Retention

- Maintain a cumulative grade point average of 2.0 .
■ Maintain a term grade point average above 1.0 in any term.


## Transfer

A student wishing to get credit for English major or minor requirements for courses taken at other institutions should consult the Assistant Chair. Evaluation of credit toward general education requirements is completed upon admission to the University. The Assistant Chair will review additional credit to determine applicability toward major or minor requirements based on course content and appropriate fit within the overall curriculum. Courses numbered below 100 or with grades lower than C will not apply toward English major or minor requirements.

## General Education Requirements for the Major

University general education requirements are outlined in the General Education section of this catalog and included in the sample curriculum outline.

## Degree Requirements Bachelor of Arts in English

ENG 200 ENG 301 ENG 497a
Three survey courses from the following:

| ENG 208 | ENG 209 | ENG 211 | ENG 212 |
| :--- | :--- | :--- | :--- |
| ENG 214 | ENG 215 |  |  |
| Two Major Author courses from the following: |  |  |  |
| ENG 307 | ENG 404 | ENG 471 | ENG 473 |
| ENG 477 | ENG 479 | ENG 480 |  |

One literary theory course from the following:
ENG 301 ENG 495
One language systems courses from the following:
ENG 369 ENG 370 ENG 400 ENG 403
ENG 416
One course in writing approaches ( 3 hours)
ENG 201 ENG 290 ENG 334 ENG 489
ENG 490 ENG 491
6 Hours of required electives (200-level or higher English courses)

Minor requirements (18-21 hours)
Foreign Languages (all hours in the same language -8 hours)
Additional electives (15-20 hours)
Notes: The complete program can include no more than 15 hours at the 200 level and must include at least 15 hours at the 400 level.

ENG 499 may not count toward the 400-level course requirements.
Only courses in which students receive a C or better will be applied toward English major or minor requirements.
Students planning to attend graduate school in English or law school should take two years of a foreign language.

## Bachelor of Arts in English, Professional Educator Licensure (Grades 6-12) Program ENG 200 ENG 475 ENG 497a ENG 301 ENG 485

Three survey courses from the following; select one course in World Literature, one in British, and one in American: ENG 208 ENG 211 ENG 214 ENG 209 ENG 212 ENG 215

Two major author courses from the following (one course in Shakespeare required):

| ENG 307 | ENG 404 | ENG 471 | ENG 473 |
| :--- | :--- | :--- | :--- |
| ENG 477 | ENG 479 | ENG480 |  |

Two courses in language systems from the following:
ENG 369 (required) ENG 400 ENG 403
ENG 416 ENG 470
One course in writing approaches from the following: ENG 490 ENG 491
Required Speech Communication Education Minor; see Department of Applied Communication Studies (18 hours)
Foreign Languages (all hours in the same language -8 hours)
Professional Education Courses (28 hours) See Requirements for Professional Educator Licensure (Grades 6-12)
Notes: The complete program can include no more than 15 hours at the 200 level and must include at least 15 hours at the

400 level.
ENG 499 may not count toward the 400-level course requirements.

Only courses in which students receive a C or better will be applied toward English major requirements.
English majors seeking Professional Educator Licensure (6-12) in secondary English Language Arts in Illinois must maintain a cumulative 3.0 GPA in English courses and, independently, in Applied Communication Studies courses as well as an overall cumulative 2.5 GPA. GPAs will be calculated based on all college courses taken at all institutions.
English majors seeking Professional Educator Licensure must meet all requirements for the $B A$ in English in addition to requirements for secondary licensure. Students seeking licensure will be mentored in the English Education program and will take 9 hours in specific courses in English rather than the 6 hours of electives in English required for the nonlicensure BA English degree. Students seeking Professional Educator Licensure in secondary English Language Arts through the Department of English Language and Literature also must declare the Speech Communication Education (SPCE) minor program, offered by the Department of Applied Communication Studies.
One calendar year before the semester in which teacher candidates plan to begin student teaching, students seeking Professional Educator Licensure must apply for approval from the English Education Committee of the Department of English Language and Literature. Application is made through the Department's student teacher screening process, described in detail in the English Department's Undergraduate Handbook for Majors and Minors and at the Secondary English Education website: siue.edu/ENGLISH/EDUC/.
The Bachelor of Arts major in English plus Professional Educator Licensure (6-12) in secondary English Language Arts fulfills illinois and Missouri state licensure requirements. Students interested in an endorsement to teach English as a second language should contact the ESL endorsement advisor.
See the Secondary English Education website for current announcements and up-to-date program information: siue.edu/ ENGLISH/EDUC/.

## Sample Curriculum for the Bachelor of Arts in English

Fall Semester

## Year 1

ENG 101 - English Composition I . . . . . . . . . . . . . . . . . . . . . . . . . 3
RA 101 - Reasoning \& Argumentation . . . . . . . . . . . . . . . . . . . . . 3
Fine \& Performing Arts (BFPA) . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
QR 101 or MATH 150 or Higher . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
ACS 101 or 103-Oral Expression. . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15
Year 2
ENG (Survey/BHUM) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
ENG (Survey/BHUM) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Foreign Language 101 (BICS) . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
Life Science Breadth (BLS). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Lab Experience (EL). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16
2015-2016 Undergraduate Catalog

Spring Semester

## Year 1

ENG 102 -English Composition II. . . . . . . . . . . . . . . . . . . . . . . 3
ENG 200 - Introduction to Literary Study (HUM) . . . . . . . . . . . . . 3
Social Science Breadth (BSS). . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
United States Cultures (EUSC) . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Health Experience (EH) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15
Year 2
ENG (Survey/BHUM) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
ENG (Major Authors/BHUM) . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Foreign Language 102 (EGC) . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
Minor. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Physical Science Breadth (BPS) . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16

## Sample Curriculum for the Bachelor of Arts in English

Fall Semester Spring Semester

Spring Semester
Year 3
ENG (Writing Approaches) ..... 3
ENG (Language Systems) ..... 3
Interdisciplinary Studies (IS) ..... 3
Minor. ..... 3
Elective ..... 3
Elective
ElectiveTotal15
Year 4
ENG (Major Authors) ..... 3
Minor. ..... 3
Minor. ..... 3
Electives .....
Total ..... 13
Year 3
ENG Literary Theory ..... 3
ENG Elective (200 or higher) .....  3
Minor. ..... 3
Minor ..... 3
Total ..... 15
Year 4
ENG 497a - Senior Seminar ..... 3
ENG Elective (200 or higher) ..... 3
Elective ..... 3
Elective/Minor ..... 3
Electives ..... 3
Total ..... 15
Of the 36 hours in English courses, at least 15 must be at the 400 level, and no more than 15 may be at the 200 level. English 499 may not count toward $400-$ level course requirements. Only courses in which the student receives a C or better will be accepted for credit toward the English major. Students must pass a year's worth of a single foreign language.
Students planning to attend graduate school in English or law school should take two years of a foreign language and should choose English 301, Basic Literary Criticism, or English 495, History of Literary Criticism, as one of their English electives.
Sample Curriculum for the Bachelor of Arts in English Professional Educator Licensure in Secondary English Language Arts (6-12)siue.edu/ENGLISH/EDUCFall Semester
Year 1
ENG 101 - English Composition I ..... 3
ACS 101 - Public Speaking ..... 3
QR 101, MATH 150 or Highe ..... 3
RA 101 or PHIL 213. ..... 3
Foreign Language 101 (BICS) ..... 4
Total ..... 16
Year 2
ENG 208 or 209 (Survey/BHUM) ..... 3
ENG 211 or 212 (Survey/BHUM) ..... 3
ACS 261 - Oral Interpretation of Literature (BFPA) ..... 3
CIED 100 - Intro to Education ..... 3
Physical Science Breadth (BPS) with a lab (EL) ..... 3
Health Experience (EH) ..... 2
Total ..... 17
Complete ILTS Test of Academic Proficiency or its equivalent (requiredfor English Student Teacher Screening and for admission to theProfessional Educator Licensure program Spring Semester.
Year 3
ENG 307 or 471 - Shakespeare ..... 3
ENG 490 - Advanced Composition ..... 3
ENG 475 - Methods of Teaching Secondary English: Literature and Culture (fall semester only) ..... 3
ACS 304, 305, 311, 419, 421, 423, 430, 433, or 434 ..... 3
EPFR 315 -Educational Psychology ..... 3
Total ..... 15
Spring Semester
Year 1
ENG 102 - English Composition II ..... 3
ENG 200 - Introduction to Literary Study. ..... 3
ACS 103 - Interpersonal Comm. Skills (EUSC) ..... 3
Life Science Breadth (BLS) ..... 3
Foreign Language 102 (same language as 101) (EGC) ..... 4
Total ..... 16
Year 2
ENG 214 or 215 (Survey/BHUM) ..... 3
ENG 301 (Literary Theory) ..... 3
ENG 369-Grammatical Analysis ..... 3
ACS 201 or 210 (BSS) .....  3
ACS 304, 305, 311, 419, 421, 423, 430, 433, or 434 ..... 3
Total ..... 15Contact School of Education, Health and Human Behavior StudentServices secondary education advisor to be admitted into Year 3courses in the School of Education, Health and Human Behavior'sprofessional educator licensure (6-12) program.
Year 3
ENG (Language Systems) ..... 3
ENG (Major Authors). ..... 3
ENG 485 - Methods of Teaching Secondary English: Compositionand Language (spring semester only)3
Interdisciplinary Studies (IS) ..... 3
EPFR 320 - Foundations of Ed in a Multicultural Society. ..... 3
Total ..... 15

Student Teacher Screening - student teacher screening portfolios due at beginning of Year 3 spring semester.

# Sample Curriculum for the Bachelor of Arts in English Professional Educator Licensure in Secondary English Language Arts (6-12),cont. siue.edu/ENGLISH/EDUC 

Fall SemesterYear 4ENG 497A - Senior Seminar. . . . . . . . . . . . . . . . . . . . . . . . . . . . 3ACS 461 - Strategies for Teaching Speech Communication (fallsemester only)3
Ci 315a - Secondary School Methods ..... 2
Cl 440 - Teaching Reading in the Secondary School. ..... 3
SPE 400 - The Exceptional Child ..... 3
Total ..... 14Complete ILTS Content-Area Test (English Language Arts) at beginningof Year 4 fall semester (required before student teaching)

Spring Semester<br>Year 4<br>Ci 352F - Secondary Student Teaching: English<br>10<br>Ci 315B - Secondary School Methods . . . . . . . . . . . . . . . . . . . . . 2<br>Total<br>12<br>Complete ILTS Assessment of Professional Teaching test at beginning of Year 4 spring semester (required for professional educator licensure)<br>Complete student teacher performance assessment (edTPA) during student teaching (required for professional educator licensure)

## Linguistics Minor Requirements

The linguistics minor requires a minimum of 6 courses (18 hours). Students are required to take an introduction to the field of linguistics (English 400), and one course in each of the following major areas of linguistic study: phonetics and phonology (English 408), and syntax (English 409). Students who are considering the Linguistics Minor are encouraged to take English 207 as part of their General Education coursework. A minor in Linguistics may be combined with a major in English. English majors who satisfy the Linguistics Minor requirements may substitute any English elective for the threehour Language Systems requirement.
At least one elective from:
ENG 318 - Language Endangerment and Death
ENG 416 - Language and Society
ENG 417 - Language and Ethnicity
At least one elective from:
ENG 369 - Grammatical Analysis
ENG 370 - Morphological Analysis
ENG 403 - History of the English Language
ENG 405 - Semantics and Pragmatics
ENG 468 - Second Language Acquisition
ENG 474 - Bilingualism and Bilingual Education

## Literature Minor Requirements

To complete a literature minor requires a minimum of 18 hours of English courses numbered 200 or above, with a grade of C or higher in each course is required. English 200 should be taken at the first possible opportunity; 6 of the 15 hours must be taken in English courses numbered 400 or higher. Appropriate courses in creative writing, expository writing, and linguistics may be included as supplements to the literature courses. All courses should be selected with the approval of the English

Department's Director of Undergraduate Studies. The literature minor may not be combined with an English major.

## Creative Writing Minor Requirements

The minor in creative writing requires a minimum of 18 hours. (Students must complete the freshman composition sequence before taking courses in creative writing.) Students must choose either of the following programs from the primary sequence: fiction (English 290, $392,492,498)$ or poetry ( $290,393,493,498$ ). To fulfill the two elective courses within the minor, students are strongly recommended to choose from: English 490, 494, or a contemporary literature course. Students may also elect to take 498 a second time; any $392,393,492$, or 493 course that is outside the student's primary sequence; and one 400-level literature course. A course from the Mass Communications Department, Writing for the Media (202), also may be counted toward the creative writing minor. A more complete description of the creative writing minor is found in the Undergraduate Handbook for Majors and Minors, which can be obtained from the Department of English, or from the Creative Writing Advisor.

## Rhetoric and Writing Minor Requirements

The minor in rhetoric and writing requires a minimum of 18 hours. Students must complete ENG 101 and 102 with a grade of C or better before beginning the minor. Students are required to take ENG 201 (Intermediate Composition); ENG 388 (Survey of the History of Rhetoric); ENG 490 (Advance Composition); and either ENG 334 (Scientific Writing) or ENG 491 (Technical and Business Writing). In addition, students must select two electives from the
following courses: ENG 332, 410, 411, 412, 444, or 489. If an appropriate topic is offered, ENG 458 may also be used as an elective; students will need advisor approval. At least six of the eighteen hours must be take at the 400 -level. A minor in Rhetoric and Writing may be combined with an English major.

## Required Courses:

ENG 201 - Intermediate Composition
ENG 388 - Survey of the History of Rhetoric
ENG 490 - Advanced Composition Either
ENG 334 - Scientific Writing or ENG 491-
Technical and Business Writing
Two Electives from the following:
ENG 332 - Argument
ENG 410 - Rhetoric, Writing, and Citizenship
ENG 411 - Internship in Writing
ENG 412 - Digital Literacies
ENG 444 - Creative Nonfiction
ENG 465 - Special Topics
ENG 489 - Style and Intentionality

## Graduation Requirements

■ Complete all general education and specific program requirements.
■ Complete all minor requirements.
■ Complete two semesters of a single foreign language

- File an Application for Graduation by the first day of the term in which you plan to graduate.


## Foreign Languages and Literature

Peck Hall, Room 2310
siue.edu/artsandsciences/fll

## Professors

Carstens-Wickham, Belinda, Ph.D., 1980, University of North Carolina, Chapel Hill
Mann, Joan, D. Ph.D., 1987, University of Florida
Pallemans, Geert, Ph.D., 1992, Florida State University

## Associate Professors

Lavallee, Thomas, Ph.D., 2004, Washington University
Rocha, Carolina, Ph.D., 2001, University of Texas, Austin
Simms, Douglas, Ph.D., 2003, University of Texas, Austin

Solares, Mariana, Ph.D, 1997, University of California, Irvine

## Assistant Professors

Bezhanova, Olga, Ph.D., 2008, Yale University Florido
Berrocal, Joaquin, Ph.D., 2009, Johns Hopkins University
Carruthers, Heidy, Ph.D., 2013, Southern Illinois University Carbondale

## Program Description

Studying another language opens a whole new world of opportunity. Learning the language of another country gives you the opportunity to understand people who, on the surface, may seem different from you. In fact, if you could understand them, you might find that they are more similar to you than you realize. While some people mistakenly believe that "everyone speaks English," obviously this statement is not true. To be sure, millions of people throughout the world may have a superficial knowledge of English, which allows for limited and rudimentary communication. However, in order to truly gain insight into different cultures, to develop intercultural understanding, to be able to sensitively handle issues concerning diversity, it is essential to learn a foreign language. It prepares you to be successful in the global marketplace. It enables you to visit another country and communicate with its citizens. It increases your global understanding and your ability to contribute to world peace. It gives you the opportunity to enjoy and appreciate ethnic festivals and celebrations in your home country and abroad. Ultimately, it gives you the ability to enrich your life by increasing your exposure to and appreciation for all the other "worlds" out there.

## Career Opportunities

The global awareness and cultural understanding acquired through learning a second language will serve students well in the 21st century. College graduates with knowledge of one or more foreign languages will enjoy a competitive edge in the multicultural workforce in most professions in the United States, in most branches of the federal government, and in teaching at all levels. They also will find rewarding careers in international business, including import and export trade, translator, and consultant positions. Salaries are competitive, and travel opportunities often are an exciting job benefit. Admission Students wishing to declare a major must satisfy the following requirements:

■ Complete all Academic Development courses required by the University.

■ Complete any required courses to address high school deficiencies.

- Achieve a cumulative grade point average of at least 2.0 in courses completed at SIUE.


## Retention

Students must maintain a cumulative grade point average of at least 2.0 to remain in good academic standing. Students whose cumulative grade point average falls below 2.0 will be placed on academic probation, returned to undeclared status and limited to a maximum of 12 hours of enrollment per term. Transfer Course work completed at regionally accredited institutions will be evaluated upon admission to the University. Results of transfer credit evaluations are available to students through CougarNet.

For more information about transfer, please visitsiue.edu/transfer.

## Courses Offered by the Department

The Department of Foreign Languages and Literature at SIUE offers graduate and undergraduate courses dealing with the language, literature, culture, and history of many countries. We currently offer courses in 12 (twelve) different world languages:

- Arabic
- Chinese
- French
- German
- Italian
- Russian
- Spanish

■ Turkish
■Yoruba
These courses are taught in the target language and represent very important world languages, including the following critical languages Arabic, Chinese, Russian, and Turkish - as well as a widely spoken African language, Yoruba. Arabic and Yoruba are currently taught by visiting Fulbright scholars, from Palestine and Nigeria respectively. In addition, students can undertake a full course of study in French, German, or Spanish. Beginning and intermediate courses are also available in Italian.

## Majors are offered in the following languages:

- French
- German
- Spanish


## Minors are offered in the following

 languages:- French
- German
- Spanish

A focus is offered in the following languages:

- Chinese
- French
- German
- Spanish

Interdisciplinary minors are offered in the following academic areas:
■ Latin American Studies
Furthermore, the department participates in the International Business major, and students may also combine their language training with a teaching degree in secondary education, working closely with SIUE's School of Education, Health and Human Behavior. All students enrolled in foreign language courses have the opportunity to practice their language skills in our state-of-theart Foreign Languages Training Center (language lab), where they will have access to online texts, workbooks, and ancillary materials and information in the target language, along with movies, DVDs, CDs, and satellite feeds in the various languages taught in our department.

Our majors and minors have access to excellent study-abroad opportunities throughout the world, which they can pursue with the assistance and guidance of the International Programs Office. Many students participate in weekly conversation hours conducted in the target languages.

## Proficiency \& Placement

All incoming students with one year or more of high school foreign language study are required to take a placement test prior to enrolling in any course in that same language at SIUE. There is no charge for the test, and students may earn up to 16 hours of proficiency credit in accordance with University and departmental policies. These credits can give you a head start on a major or minor in a world language by starting at a more advanced level, assist you in a double major, or help you complete your major or minor early. Please contact the department for more information.

## Degree Programs

Bachelor of Arts or Bachelor of Science, Foreign Language \& Literature Specialization required in one of the following:

- French
- German
- Spanish


## Teacher Licensure (K-12) Programs are available.

It is strongly recommended that students who choose a language major also select an additional major or minor concentration in another discipline. Such a combination will enhance students' educational and employment opportunities.

## General Education Requirements

University general education requirements are outlined in the General Education section of this catalog and included in the sample curriculum outline.

## Degree Requirements

French and German Majors
FL 111a,b FR/GER 201 FR/GER 202 FR/GER301
FR/GER 351 FR/GER 352 FR/GER 400a,b
300-400 level elective courses (12 hours)
Spanish Major
SPAN 201 SPAN 202 SPAN 301 SPAN 302
SPAN $400 \quad 300-400$ level elective courses (18 hours)
Advanced electives will normally include at least two courses in culture and two in literature. 400 is usually taken during the last semester of major course work.
Teacher Certification (K-12) Program
Students seeking teacher certification (K-12) will complete the following in addition to major requirements:
FL $486 \quad$ Professional Education Courses
SPAN 308 (for Spanish majors only)
Illinois State Certification Requirements

In addition, all foreign language students seeking teaching certification must take the OPI (Oral Proficiency Interview) as required by NCATE / ACTFL and obtain a minimum proficiency level of "Advanced Low" in order to be approved to student teach.

See the teacher certification (K-12) section of this catalog for details. Note: A "B" (3.0) average in the major is required for teacher certification (K-12). In order to register for student teaching in foreign languages (Ci 352g), students must successfully complete a student teaching interview.
Admission to a teacher education program is a joint decision by the academic discipline in the College of Arts and Sciences and the School of Education, Health and Human Behavior. Therefore, it is essential that any student desiring teacher certification meet with an advisor in the School of Education, Health and Human Behavior Student Services of the School of Education for admission to the teacher education program.

## Minor Requirements

A minor in French, German, or Spanish consists of the following courses (21 hours): French and German Minors FL 111a, b, **; 201**; 202**; 301. Plus 6 hours of electives at the 300-400 level.
Spanish Minors 201**; 202**; 301 or 302 . Plus 9 hours of electives at the 300-400 level; one of these electives must be 311 or 312. Minor in Russian Area Studies A minor in Russian area studies consists of the following 26 hours: Russian 201**; 202**; and the following courses: Geography 331**; History 318(a)**; 318 (b)*; 426**; Philosophy 344** Political Science $351^{* *}$ * Students seeking teacher certification should consult with their advisors. ** Satisfies general education requirements Focus Requirements A focus in Chinese consists of the following five required course and one elective ( 22 hours): $101^{* *}, 102^{* *}, 201,202$, FL111d**, plus 3 hours of electives at the 300-400 level. **Satisfies requirements for general education.

A focus in French, German, or Spanish consists of the following three required courses and one elective (15): 201, 202, 301 plus 3 hours of electives at the 300-400 level.

## Sample Curriculum for the Bachelor of Arts - Foreign Languages and Literature: French

Fall Semester

## Year 1

FR 101 - Elementary French I (BICS) . . . . . . . . . . . . . . . . . . . . . . 4
ENG 101 -English Composition I . . . . . . . . . . . . . . . . . . . . . . . . 3
FL 111a or FL 111e - Intro to Foreign Studies (BHUM) . . . . . . . . 3
Fine \& Performing Arts Breadth (BFPA) . . . . . . . . . . . . . . . . . . . . 3
ACS 101 or 103 - Oral Expression . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total ................................................................ . . . 16
Year 2
FR 201 - Intermediate French I . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
Life Science Breadth (BLS) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Health Experience (EH). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Lab Experience (EL) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16

## Spring Semester

## Year 1

FR 102 -Elementary French II (EGC) . . . . . . . . . . . . . . . . . . . . . 4
ENG 102 - English Composition II. . . . . . . . . . . . . . . . . . . . . . . . 3
RA 101 - Reasoning \& Argumentation . . . . . . . . . . . . . . . . . . . . . 3
QR 101 - Quantitative Reasoning . . . . . . . . . . . . . . . . . . . . . . . . 3
Social Science Breadth (BSS) . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16
Year 2
FR 202 - Intermediate French II . . . . . . . . . . . . . . . . . . . . . . . . . . 4
Physical Science Breadth (BPS) . . . . . . . . . . . . . . . . . . . . . . . . . 3
Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
United States Cultures (EUSC) . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16

## Sample Curriculum for the Bachelor of Arts - Foreign Languages and Literature: French cont.

Year 3
FR 301 - Advanced French. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
FR 351 - Survey of French Literature (BHUM) . . . . . . . . . . . . . . . 3
Interdisciplinary Studies (IS) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 13

Year 4
FR 400a - Senior Essay . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2
French Elective ( $300-400$ level) . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
French Elective (300-400 level) . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 14Fall Semester
Year 1
FR 101 Elementary French I (BICS) ..... 4
ENG 101 English Composition I ..... 3
FL 111a or FL 111e Intro to Foreign Studies (BHUM) ..... 3
Fine \& Performing Arts Breadth (BFPA) ..... 3
ACS 101 or 103-Oral Expression ..... 3
Total ..... 16
Year 2
FR 201 - Intermediate French I ..... 4
Life Science Breadth (BLS) ..... 3
Social Sciences Breadth (BSS)/United States Culture (EUSC) . .....  3
Life, Physical or Social Science with a lab (EL) ..... 3
Total ..... 13
Complete ILTS Test of Academic Proficiency (formerly the BasicSkills Test) for Admission to the Teacher Certification Program
Year 3
FR 301 - Advanced French ..... 4
FR 351 - Survey of French Literature (BHUM) ..... 3
French Elective (300-400 level) .....  3
SPE 400 - The Exceptional Child ..... 3
Life, Physical or Social Science with a lab (EL)-BS ..... 3
Total ..... 16
Year 4
FR 400a - Senior Essay ..... 2
French Elective (300-400 level) ..... 3
Ci 315a - Methods of Teaching in the Secondary Scho .....  2
Ci 440 - Teaching Reading in the Secondary School ..... 3
EPFR 320 - Foundations of Education in a Multicultural Society .....  3
FL 486 - Lang Learn \& Teach of Foreign Lang. ..... 3
Total ..... 16Spring Semester

Spring Semester
Year 3
FR 352 - Survey of French Literature . . . . . . . . . . . . . . . . . . . . . . 3
French Elective (300-400 level) . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total .................................................................. 15

Year 4
FR 400b - Senior Essay . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2
French Elective ( $300-400$ level) . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 14

## Sample Curriculum for the Bachelor of Arts/Science - Foreign Languages and Literature: French - Teacher Certification (K-12)

Spring Semester
Year 1
FR 102 Elementary French I (EGC). ..... 4
ENG 102 English Composition II ..... 3
RA 101 - Reasoning \& Argumentation ..... 3
QR 101 - Quantitative Reasoning ..... 3
Life, Physical or Social Science-BS ..... 3
Total ..... 16
Year 2
FR 202 - Intermediate French II ..... 4
CiED 100 - Introduction to Education ..... 3
Physical Science Breadth (BPS) ..... 3
Life, Physical or Social Science-BS ..... 3
Health Experience (EH). ..... 2
Total ..... 15
Year 3
FR 352 - Survey of French Literature ..... 3
French Elective (300-400 level) ..... 3
French Elective (300-400 level) ..... 3
EPFR 315-Educational Psychology ..... 3
Interdisciplinary Studies (IS) ..... 3
Total ..... 15
Complete the OPI (Oral Proficiency Interview) and the Illinois StateContent Area Exam to be approved to student teach
Year 4
FR 400b - Senior Essay ..... 2
Ci 315b - Methods of Teaching in the Secondary School .....  2
Ci 352g Student Teaching ..... 10
Total ..... 14

## Sample Curriculum for the Bachelor of Arts - Foreign Languages and Literature: German

Fall SemesterYear 1
GER 101 - Elementary German I (BICS) ..... 4
ENG 101 -English Composition I ..... 3
FL 111b - Intro to Foreign Studies (BHUM) ..... 3
Fine \& Performing Arts Breadth (BFPA) ..... 3
ACS 101 or 103-Oral Expression ..... 3
Total ..... 16
Year 2
GER 201 - Intermediate German I (BICS). ..... 4
Life Science Breadth (BLS) ..... 3
Social Science Breadth (BSS) ..... 3
Lab Experience (EL) ..... 3
RA 101 - Reasoning \& Argumentation ..... 3
Total ..... 16
Year 3
GER 301 - Advanced German ..... 4
GER 351 - Survey of German Literature ..... 3
Interdisciplinary Studies (IS) ..... 3
Elective ..... 3
Total ..... 13
Year 4
GER 400a - Senior Essay ..... 2
German Elective (300-400 level) ..... 3
Elective ..... 3
Elective ..... 4
Elective ..... 3
Total ..... 15
Fall Semester
Year 1
GER 101 - Elementary German I (BICS) ..... 4
ENG 101 -English Composition I ..... 3
FL 111b - Introduction to Foreign Studies (BHUM) ..... 3
Fine \& Performing Arts Breadth (BFPA) ..... 3
ACS 101 or 103-Oral Expression ..... 3
Total ..... 16
Year 2
GER 201 - Intermediate German I ..... 4
CiED 100 - Introduction to Education ..... 3
Social Science Breadth (BSS)/United States Culture (EUSC) ..... 3
Life, Physical or Social Science-BS ..... 3
Lab Experience (EL) ..... 3
Total ..... 16
Students must pass ILTS Test of Academic Proficiency (TAP) to add education courses beyond Ci 200 (EPFR/SPE/Ci) and before screening for student teaching.
Spring Semester
Year 1
GER 102 - Elementary German II (EGC) ..... 4
ENG 102 - English Composition II ..... 3
QR 101 -Quantitative Reasoning ..... 3
United States Cultures (EUSC) ..... 3
Health Experience (EH). ..... 3
Total ..... 16
Year 2
GER 202 - Intermediate German II ..... 4
Physical Science Breadth (BPS) ..... 3
Elective ..... 3
Elective ..... 3
Elective ..... 2
Total ..... 15
Year 3
GER 352 - Survey of German Literature. ..... 3
German Elective (300-400 level) ..... 3
Elective ..... 3
Elective ..... 3
Elective. ..... 3
Total ..... 15
Year 4
GER 400b - Senior Essay .....  2
German Elective (300-400 level) ..... 3
German Elective (300-400 level) ..... 3
Elective ..... 3
Elective ..... 3
Total ..... 14
Sample Curriculum for the Bachelor of Arts/Science - Foreign Languages and Literature: German - Teacher Certification (K-12)Spring Semester
Year 1
GER 102 - Elementary German II (EGC) ..... 4
ENG 102 - English Composition II. ..... 3
RA 101 - Reasoning \& Argumentation ..... 3
QR 101-Quantitative Reasoning ..... 3
Life Science Breadth (BLS) ..... 3
Total ..... 16
Year 2
GER 202 - Intermediate German II ..... 4
Physical Science Breadth (BPS) ..... 3
Life, Physical or Social Science-BS ..... 3
Life, Physical or Social Science with a lab - BS ..... 3
Health Experience (EH). ..... 2
Total ..... 15
Contact a School of Education Student Services secondary educationadvisor to register for education courses beyond CiED 100 (once TAPis passed).

## Sample Curriculum for the Bachelor of Arts/Science - Foreign Languages and Literature: German - Teacher Certification (K-12) cont.

Fall SemesterYear 3GER 301 - Advanced German ..... 4
German Elective (300-400 level) .....  3
GER 351 - Survey of German Literature . ..... 3
EPFR 315 - Educational Psychology ..... 3
Total ..... 13
Pre-Student Teaching Registration (see the FL Education Director toregister for student teacher screening)
Year 4
GER 400a - Senior Essay ..... 2
German Elective (300-400 level) ..... 3
FL 486 - Language Learning \& Teaching Foreign Lang ..... 3
Ci 315 - Methods Teaching in the Secondary School. ..... 2
Ci 440 - Teaching Reading in the Secondary School ..... 3
SPE 400 The Exceptional Child ..... 3
Total ..... 16
ILTS German Language Content-Area Test (must pass content test
Spring Semester
Year 3
GER 352 - Survey of German Literature. ..... 3
German Elective (300-400 level) 3
EPFR 320 - Found of Education in a Multicultural Society ..... 3
Interdisciplinary Studies ..... 3
German Elective (300-400 level)
15
Total
FL Student Teacher Screening (Students must score Advanced-Low in the OPI (Oral Proficiency Interview) before screening for student teaching.)
Year 4
GER 400b - Senior Essay ..... 2
Ci 315b - Methods of Teaching in the Secondary School ..... 2
Ci 352g-Student Teaching ..... 10
Total ..... 14
ILTS Assessment of Professional Teaching (must pass APT to becomelicensed)

# Sample Curriculum for the Bachelor of Arts - Foreign Languages and Literature: Spanish 

Fall Semester
Year 1
SPAN 101 - Elementary Spanish I (BICS) ..... 4
ENG 101 -English Composition I ..... 3
Fine \& Performing Arts Breadth (BFPA) ..... 3
Humanities Breadth (BHUM) ..... 3
ACS 101 or 103-Oral Expression ..... 3
Total ..... 16
Year 2
SPAN 201 - Intermediate Spanish I (BICS) ..... 4
Life Science Breadth (BLS) ..... 3
Social Science Breadth (BSS) ..... 3
Lab Experience (EL) ..... 3
United States Cultures (EUSC) ..... 3
Total ..... 16
Year 3
SPAN 301 - Advanced Spanish ..... 4
Spanish Elective (300-400 level) ..... 3
Interdisciplinary Studies (IS) ..... 3
Elective ..... 3
Total ..... 13
Year 4
SPAN 400 - Senior Essay ..... 3
SPAN Elective (300-400 level) ..... 3
SPAN Elective (300-400 level) ..... 3
Elective .....  3
Elective ..... 3
Total ..... 15
Spring Semester
Year 1
SPAN 102 - Elementary Spanish II (EGC) ..... 4
ENG 102 - English Composition II. .....  3
RA 101 - Reasoning \& Argumentation ..... 3
QR 101 - Quantitative Reasoning ..... 3
Physical Science Breadth (BPS) ..... 3
Total ..... 16
Year 2
SPAN 202 - Intermediate Spanish II ..... 4
Health Experience (EH). ..... 3
Elective ..... 3
Elective ..... 3
Elective ..... 3
Total ..... 16
Year 3
SPAN 302 - Advanced Spanish. ..... 4
Spanish Elective ( $300-400$ level) .....  3
Spanish Elective (300-400 level) .....  3
Elective ..... 5
Total ..... 15
Year 4
SPAN Elective (300-400 level) ..... 3
Elective ..... 4
Elective .....  3
Elective .....  3
Total ..... 13

## Sample Curriculum for the Bachelor of Arts - Foreign Languages and Literature: Spanish - Teacher Certification (K-12)

Fall SemesterYear 1SPAN 101 - Elementary Spanish I (BICS). ..... 4
ENG 101 - English Composition I ..... 3
Fine \& Performing Arts Breadth (BFPA) ..... 3
FL 111c Introduction to Foreign Studies Spanish (BHUM) ..... 3
ACS 101 or 103 - Oral Expression ..... 3
Total ..... 16
Year 2
SPAN 201 - Intermediate Spanish I. ..... 4
CiED 100-Introduction to Education ..... 3
Soial Science Breadth (BSS, EUSC) ..... 3
Lab Experience (EL) ..... 3
Total ..... 13
Students must pass Illinois Test of Academic Proficiency (TAP) toadd education courses beyond CiED 100 (EPFR/SPE/Ci) and beforescreening for student teaching.
Year 3
SPAN 301 - Advanced Spanish ..... 4
SPAN 302 - Advanced Spanish ..... 4
Spanish Elective* (300-400 level) ..... 3
Spanish Elective (300-400 level) ..... 3
EPFR 315 - Educational Psychology .....  3
Total ..... 17
Pre-Student Teaching Registration (see the FL Education Director toregister for student teacher screening)
Year 4
SPAN 400 - Senior Essay ..... 3
Spanish Elective * (300-400 level) ..... 3
FL 486 - Language Learning \& Training Foreign Language ..... 3
Ci 315a - Methods Teaching in the Secondary School. ..... 2
Ci 440 - Teaching Reading in the Secondary School ..... 3
SPE 400 - The Exceptional Child ..... 3
Total ..... 17
Spring Semeste
Year 1
SPAN 102 - Elementary Spanish II (EGC). ..... 4
ENG 102 - English Composition II. .....  3
RA 101 - Reasoning \& Argumentation ..... 3
QR 101-Quantitative Reasoning ..... 3
Life Science Breadth (BLS) ..... 3
Total ..... 16
Year 2
SPAN 202 - Intermediate Spanish II ..... 4
Physical Science Breadth (BPS) ..... 3
Elective ..... 3
Health Experience (EH). ..... 3
Total ..... 13
Contact an School of Education Student Services secondary educationadvisor to register for education courses beyond CiED 100 (onceTAPis passed).
Year 3
SPAN 308 - Spanish Linguistics ..... 4
Spanish Elective* (300-400 level) ..... 3
Spanish Elective* (300-400 level) ..... 3
EPFR 320 - Foundations of Education in a Multicultural Society 3 ..... 3Interdisciplinary Studies (IS)
Total3
FL Student Teacher Screening (Students must score Advanced-Lowin the OPI (Oral Proficiency Interview before screening for studentteaching).
Year 4
Ci 315b - Methods of Teaching in the Secondary School ..... 2
Ci 352g - Student Teaching ..... 10
Total ..... 12
ILTS Assessment of Professional Teaching (must pass APT to becomelicensed).
*Choose from SPAN 311, 312, 320, 351, 352.

# Sample Curriculum for the Bachelor of Science - Foreign Languages andLiterature: Spanish - Teacher Certification (K-12) 

Fall SemesterYear 1
SPAN 101 - Elementary Spanish I (BICS). ..... 4
ENG 101 - English Composition I ..... 3
Fine \& Performing Arts Breadth (BFPA). ..... 3
FL 111c Introduction to Foreign Studies Spanish (BHUM) ..... 3
ACS 101 or 103-Oral Expression ..... 3
Total ..... 16
Year 2
SPAN 201 - Intermediate Spanish I ..... 4
CiED 100 - Introduction to Education ..... 3
Social Science Breadth (BSS, EUSC) ..... 3
Life, Physical or Social Science-BS ..... 3
Lab Experience (EL) ..... 3
Total ..... 16
Students must pass ILTS Test of Academic Proficiency (TAP) to addeducation courses beyond CiED 100 (EPFR/SPE/Ci) and beforescreening for student teaching.
Spring Semester
Year 1
SPAN 102 - Elementary Spanish II (EGC). ..... 4
ENG 102 - English Composition II. ..... 3
RA 101 - Reasoning \& Argumentation ..... 3
QR 101-Quantitative Reasoning ..... 3
Life Science Breadth (BLS) ..... 3
Total ..... 16
Year 2
SPAN 202 - Intermediate Spanish II ..... 4
Physical Science Breadth (BPS) .....  3
Life, Physical or Social Science with a lab -BS ..... 3
Life, Physical or Social Science-BS ..... 3
Health Experience (EH). ..... 0/2
Total ..... 13/15Contact an School of Education Student Services secondaryeducation advisor to register for education courses beyond CiED 100(onceTAP is passed).

## Sample Curriculum for the Bachelor of Science - Foreign Languages and Literature: Spanish - Teacher Certification (K-12) cont.

Fall SemesterYear 3SPAN 301 - Advanced Spanish. ..... 4
SPAN 302 - Advanced Spanish ..... 4
Spanish Elective (300-400 level) ..... 3
Spanish Elective* (300-400 level) ..... 3
EPFR 315 -Educational Psychology ..... 3
Total ..... 17
Pre-Student Teaching Registration (see the FL Education Director toregister for student teacher screening)
Year 4
SPAN 400 - Senior Essay ..... 3
FL 486 - Language Learning \& Training Foreign Language ..... 3
Ci 315 - Methods Teaching in the Secondary School. ..... 2
Ci 440 - Teaching Reading in the Secondary School ..... 3
SPE 400 - The Exceptional Child. ..... 3
Total ..... 14
*Choose from SPAN 311, 312, 320, 351, 352.

Spring Semester
Year 3
SPAN 308 - Spanish Linguistics
Spanish Elective* (300-400 level)
Spanish Elective* (300-400 level)

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3
``` Spanish Elective * (300-400 level)
 Interdisciplinary Studies (IS) . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

TotalFL Student Teacher Screening (Students must score Advanced-Lowin the OPI (Oral Proficiency Interview before screening for studentteaching).
Year 4
Ci 315b - Methods of Teaching in the Secondary School ..... 2
Ci 352g-Student Teaching ..... 10
Total ..... 12ILTS Assessment of Professional Teaching (must pass APT to becomelicensed).

\section*{Graduation Requirements}

For majors and minors in the Department of Foreign Languages and Literature, credit is allowed for only those courses in which grades of \(C\) or better are earned. A "B" (3.0) average in the major is required for Teacher certification (K-12).

\section*{Geography}

Alumni Hall, Room 1401
siue.edu/geography

\section*{Professors}

Hu, Shunfu, Ph.D., 1998, University of Georgia
Pearson, Randall S., Ph.D., 1993, Indiana State University
Shaw, Wendy (Associate Dean), Ph.D., 1994, University of Georgia
Zhou, Bin, Ph.D., 1994, University of Georgia

\section*{Associate Professors}

Acheson, Gillian (Chair), Ph.D., 2003, Texas A\&M University
Grossman, Michael J., Ph.D., 2003, University of Wisconsin, Madison
Hildebrandt, Mark L., Ph.D., 1999, Arizona State University
Hume, Susan E., Ph.D., 2005, University of Oregon
Odemerho, Francis O., Ph.D., 1982, Clark University

\section*{Assistant Professors}

Brown, Stacey, Ph.D., 2011, Oklahoma State University
Hanlon, James A., Ph.D., 2008, University of Kentucky
Martinez, Adriana, Ph.D., 2013, University of Oregon
Shouse, Michael, Ph.D., 2014, University of Kentucky

\section*{Program Description}

The Department of Geography offers the bachelor of science and the bachelor of arts degrees in geography. A degree in geography requires a minimum grade of C in courses completed for the major.
Geography stresses the spatial analysis of human activities and their relationships with the environment. While geography is one of the most time-honored disciplines reflecting curiosity about people and places, it is also an applied discipline that offers insights about present and future issues, involving environment, culture, society, economy, and politics.

The breadth of geographic inquiry accommodates students who have broad interests and goals. Areas of emphasis include human-environment interaction, cartography/ geographic information systems, physical geography, economic geography, cultural geography and urban geography. Geography
majors are encouraged to consult with geography faculty and should consider using elective hours to expand a particular area of interest. For example, human geographers can develop an area of specialization in urban studies or cultural landscapes while physical geographers should consider a minor or an area of specialization in the physical sciences; students interested in cartography or geospatial techniques might consider a minor in Geographic Information Systems (GIS) or a minor in mathematics.

\section*{Career Opportunities}

A geographer with a bachelor's degree has opportunities for employment in a wide variety of businesses and public organizations. Geography graduates have found employment as planners, environmental analysts, locational and industrial development analysts, cartographers, foreign service and intelligence officers, geographic information systems and image processing specialists, historic preservation specialists, and teachers at the elementary or secondary school level. The program also prepares students to continue their geographic studies at the graduate level, which may provide opportunities to teach in community colleges and universities.

\section*{Admission}

To declare a major in Geography, students must satisfy the following requirements:

■ Complete all Academic Development courses required by the University.
■ Complete any required courses to address high school deficiencies.

■ Achieve a cumulative grade point average of at least 2.0 in courses completed at SIUE.

\section*{Retention}

Students must maintain a cumulative grade point average of at least 2.0 to remain in good academic standing. Students whose cumulative grade point average falls below 2.0 will be placed on academic probation, returned to undeclared status and limited to a maximum of 12 hours of enrollment per semester.

\section*{Transfer}

Course work completed at regionally accredited institutions will be evaluated upon admission to the University. Results of transfer credit evaluations are available to students through CougarNet. For more information about transfer, please visitsiue.edu/transfer.

\section*{Degree Programs}

\author{
Bachelor of Arts, Geography
}

Bachelor of Science, Geography
Teacher Licensure (6-12) Program is available

\section*{Minors}

Geographic Information Systems
Meteorology and Climatology

\section*{Degree Requirements}

\section*{General Education Requirements}

University general education requirements are outlined in the General Education section of this catalog and included in the sample curriculum outline.

\section*{Geography Core Requirements (36 hours)}

GEOG 205 -Human Geography
GEOG 210 - Physical Geography
GEOG 201 - World Regions
GEOG 320 - Cartography
GEOG 321 - Quantitative Techniques
Two human geography courses, after completing GEOG 205, from among the following: \(300,301,303,401,402,403,405\), 406, 451
Two physical geography courses, after completing GEOG 210, from among the following: \(310,312,314,315,316,408,410\), 411, 412, 413, 414, 415, 416, 429, 452
One regional geography course, after completing GEOG 201, from among the following: \(330,331,332,333,334,335,453\)
One geography techniques course, after completing GEOG 320 , from among the following: \(322,418,419,420,421,422\), 423, 424, 425, 454
GEOG 499 Senior Assignment is completed over a twosemester period. A grade of DE (deferred) is assigned at the end of the first semester.

\section*{Minor or Area of Specialization (18 hours)}

Geography majors must complete either an existing minor or an area of specialization option. The area of specialization option is designed to give students an opportunity to further explore the breadth and depth of geography and related disciplines, and consists of 18 hours of coursework beyond the major. The area of specialization may include courses from a variety of departments, including geography (courses must be in addition to all major requirements), and it must be designed in consultation with a geography faculty member and approved by the department chair. All courses taken as part of an area of specialization require a minimum grade of C. Geography majors can minor in Geographic Information Systems and/or Meteorology and Climatology, however, Geography majors cannot minor in Geography.

\section*{Electives (22-24 hours)}
Sample Curriculum for the Bachelor of Arts in Geography
Fall Semester
Year 1
ENG 101 -Composition ..... 3
ESCI 111 - Introduction to Physical Geology \& Geography (BPS \(\mathrm{EL})\) (recommended) ..... 3
Foreign Language 101 (BICS) ..... 4
ACS 101 or 103-Oral Expression ..... 3
Fine \& Performing Arts Breadth (BFPA) ..... 3
Total ..... 16
Year 2
GEOG 210 - Physical Geography (BPS) ..... 3
GEOG 205 - Human Geography (BSS) ..... 3
Humanities Breadth (BHUM) ..... 3
Minor or AOS ..... 3
Health Experience (EH). ..... 3
Total ..... 15
Year 3
GEOG 320 - Cartography ..... 3
Human Geography Requirement. ..... 3
Fine \& Performing Arts or Humanities ..... 3
Minor or AOS ..... 3
United States Cultures (EUSC) ..... 3
Total ..... 15
Year 4
Physical Geography Requirement ..... 3
Regional Geography Requirement ..... 3
Life Science Breadth (BLS) ..... 3
Fine \& Performing Arts or Humanities ..... 3
Electives ..... 2
Total ..... 14
Spring Semester
Year 1GEOG 201 - World Regions (BSS, EGC)3ENG 102 - Composition3
Foreign Language 102 (EGC) ..... 4
QR 101, MATH 150 or Higher ..... 3
RA 101 or PHIL 213 ..... 3
Total ..... 16
Year 2
Human Geography Requirement. ..... 3
GEOG 321 - Quantitative Techniques (BICS, EL) ..... 3
Fine \& Performing Arts or Humanities ..... 3
Minor or AOS. ..... 3
Minor or AOS. ..... 3
Total ..... 15
Year 3
Physical Geography Requirement. ..... 3
Interdisciplinary Studies (IS) ..... 3
Minor or AOS. ..... 3
Minor or AOS. ..... 3
Fine \& Performing Arts or Humanities ..... 3
Total ..... 15
Year 4
GEOG 499 - Senior Project ..... 3
Geography Techniques Requirement ..... 3
Electives ..... 8
Total ..... 14
Sample Curriculum for the Bachelor of Science in GeographyFall Semester
Year 1
ENG 101 - Composition ..... 3
ESCI 111 - Intro to Physical Geology \& Geography (BPS, EL) (recommended) ..... 3
RA 101 - Reasoning \& Argumentation ..... 3
ACS 101 or 103 - Oral Expression ..... 3
Fine \& Performing Arts (BFPA) ..... 3
Total ..... 15
Year 2
GEOG 210 - Physical Geography (BPS). ..... 3
Humanities Breadth (BHUM). ..... 3
Health Experience (EH). .....  3
Elective ..... 3
Elective ..... 3
Total ..... 15
Year 3
GEOG 320 - Cartography ..... 3
Human Geography Requirement. ..... 3
Minor or AOS. ..... 3
Elective ..... 3
Elective. ..... 3
Total ..... 15
Spring Semester
Year 1
GEOG 201 - World Regions (BSS, EGC) ..... 3
ENG 102 - Composition ..... 3
Life Science Breadth (BLS) ..... 3
MATH 120, 125, 130 or 150 (BPS) ..... 3
QR 101, MATH 150 or Higher ..... 3
Total ..... 15
Year 2
GEOG 205 - Human Geography (BSS, EL) ..... 3
GEOG 321 - Quantitative Techniques (BICS, EL) ..... 3
United States Cultures (EUSC) ..... 3
Minor or AOS. ..... 3
Minor or AOS ..... 3
Total ..... 15
Year 3
Human Geography Requirement. ..... 3
Interdisciplinary Studies (IS). ..... 3
Minor or AOS. ..... 3
Minor or AOS. ..... 3
Elective ..... 3
Total ..... 15

\section*{Sample Curriculum for the Bachelor of Science in Geography cont.}
Fall Semester
Year 4
Physical Geography Requirement. ..... 3
Physical Geography Requirement. ..... 3
Regional Geography Requirement ..... 3
Minor or AOS ..... 3
Elective ..... 3
Total ..... 15

Fall Semester

\section*{Year 1}

ENG 101 - English Composition I . . . . . . . . . . . . . . . . . . . . . . . . 3
ESCI 111 - Intro to Physical Geology \& Geography (BPS, EL) (recommended)3
RA 101 - Reasoning \& Argumentation ..... 3
ACS 101 or 103-Oral Expression ..... 3
Fine \& Performing Arts Breadth (BFPA) ..... 3
Total ..... 15
Year 2
GEOG 201 - World Regions (BSS, EGC) ..... 3
GEOG 205 - Human Geography (BSS, EL) ..... 3
GEOG 210 - Physical Geography(BPS) ..... 3
HIST 112a - World History to 1500 (BHUM, EGC). ..... 3
Life Science Breadth (BLS) ..... 3
Health Experience (EH) ..... \(.0 / 3\)
Total ..... 15/18
Year 3
GEOG 301 (Human Geography Requirement) ..... 3
CIED 100 - Introduction to Education ..... 3
ECON 112 - Principles of Microeconomics (BSS) ..... 3
HIST 323-History/Pedagogy or GEOG 440 Teaching ofGeography3
Human Geography Requirement. ..... 3
Total ..... 15
Complete ILTS Test of Academic Proficiency (formerly the BasicSkills Test) for admission to the Teacher Licensure Program
Year 4
CI 315a - Methods of Teaching in the Secondary School ..... 2
Cl 440 - Teaching Reading in the Secondary School. ..... 3
EFPR 320 - Foundations of Education in a Multicultural Society ..... 3
Interdisciplinary Studies (IS) ..... 3
Physical Geography Requirement. ..... 6
Total ..... 17
Spring Semester
Year 4
Geography Techniques Requirement ..... 3
GEOG 499 Senior Project ..... 3
Elective ..... 3
Elective ..... 3
Elective. ..... 3
Total ..... 15
Sample Curriculum for the Bachelor of Science* in Geography, Teacher Licensure (6-12)

\author{
Spring Semester
}
Year 1
ANTH 111B-Human Culture \& Communication (BSS, EGC,EUSC) ..... 3
ENG 102 - English Composition II. ..... 3
MATH 120, 125, 130, or 150 (BPS) .....  3
POLS 111 - Intro to Political Science (BSS) ..... 3
SOC 111 - Intro to Sociology (BSS) ..... 3
QR 101, MATH 150 or Higher ..... 3
Total ..... 18
Year 2
GEOG 320 - Cartography ..... 3
3 ECON 111 - Principles of Macroeconomics (BSS).
3 HIST 112B - World History, 1500 to Present (BHUM, EGC) ..... 3
POLS 112 - American Government (BSS) ..... 3
Total ..... 15
Year 3
Geography Techniques Requirement ..... 3
EPFR 315-Educational Psychology ..... 3
Choice of one POLS course ..... 3
SPE 400 The Exceptional Child ..... 3
Regional Geography Requirement ..... 3
Total ..... 15
Year 4
GEOG 499 - Senior Project ..... 3
Cl 315b - Methods of Teaching in the Secondary School .....  2
Cl 352 - Student Teaching - Secondary ..... 10
Total ..... 15
*A student who wishes to earn a B.A. degree in Geography will complete two semesters of the same foreign language and three additional courses in fine and performing arts or humanities.

\section*{Graduation Requirements}

Complete all specific program requirements.
■ Complete all University requirements including:
- All general education requirements
- A minimum of 120 credit hours
- At least 30 of which must be completed at SIUE
- At least 60 of which must be completed at a regionally accredited 4 -year institution
- A minimum cumulative grade point average of 2.0
- Bachelor of Arts only: a two-semester sequence of the same foreign language

■ File an Application for Graduation by the first day of the term in which you plan to graduate.

\section*{Minor in Geography (for non-Geography majors)}

The minor in geography requires that students take 18 credits consisting of courses at the 200 level or above. The student is required to take one human course, one physical course, and one regional course for a total of 9 credits. The remaining 9 credits in geography may be taken as electives. A minimum grade of C is required in courses completed for the minor. The courses should be selected in consultation with an undergraduate advisor in geography.

\section*{Graduation Requirements}

To earn a minor in Geography, students must complete 18 credit hours in Geography courses. A grade of \(C\) or better must be achieved in all Minor coursework. Students must complete all University requirements.

\section*{Geographic Information Systems (GIS) Minor}

The GIS minor develops knowledge and skills related to the application of Geographic Information Systems for mapping and analyzing spatial data. Since GIS has evolved into an invaluable technology that is being used extensively by geographers, environmental scientists, biologists, climatologists, epidemiologists, transportation planners, engineers, and business strategists, a minor in GIS would be an ideal supplement to many different programs of study (e.g., biology, criminal justice, anthropology, geography, political science).
The minor in GIS is comprised of 18 credit hours. Students must earn a letter grade of C or better for all minor coursework. The minor is open to students from any major, however the specific course requirements for Geography majors are different than those for non-Geography majors, as described below.

\footnotetext{
GIS Minor Requirements for Geography Majors:
Students majoring in geography must complete 9 credit hours of required coursework and at least 9 credit hours of electives. (Please note that majors must complete an additional 300- or 400-level course to fulfill the techniques requirement for the major.)

Required Courses: GEOG 418, GEOG 422, GEOG 424
Electives: 9 credit hours selected from the list below or with the approval of the GIS coordinator
}

GIS Minor Requirements for All Other Majors:
Students not majoring in geography must complete 12 credit hours of required coursework and at least 6 credit hours of elective coursework.

Required courses: GEOG 320, GEOG 418, GEOG 422, GEOG 424 Electives: 6 credit hours selected from the list below or with the approval of the GIS coordinator
Elective courses include the following: GEOG 322, GEOG 419, GEOG 420, GEOG 421, GEOG 423, GEOG 425, GEOG 427 (GIS-related only), GEOG 454 (GIS-topics only)
Other courses not listed here may be used as electives toward the minor with the approval of the GIS Coordinator.

\section*{Graduation Requirements}

To earn a minor in GIS, students must complete 18 credit hours as described above. A grade of \(C\) or better must be achieved in all Minor coursework. Students must complete all University requirements.

\section*{Minor in Meteorology and Climatology}

Weather and climate are central components of the physical environment, playing important roles in a wide range of human activities and natural processes. This minor provides an overview of the physical processes that control both past and present-day weather and climate change throughout geological time, and allows students to study the linkages between the EarthAtmosphere system and human development, food and water resources, and disease.

The minor in Meteorology and Climatology requires that students take 18 credit hours as follows. Students must complete 6 hours of Core Required Courses in Meteorology and Climatology; 6 credits in Advanced Topics in Meteorology and Climatology; and 6 credits of Electives split between human geography and applied spatial analysis. A minimum grade of \(C\) is required in courses completed for the minor. Geography majors pursuing the minor in Meteorology and Climatology cannot count the same classes for their major and their minor. The courses should be selected in consultation with the Meteorology and Climatology Coordinator.

\section*{Requirements:}

Core Required Courses
GEOG 211 - Meteorology
GEOG 314 - Climatology
Advanced Topics in Meteorology and Climatology*
At least two of the following:
GEOG 202-Resource Use and Management

GEOG 316 - Introduction to Biogeography
GEOG 408 - Snow and Ice Processes
GEOG 411 - Hydrology
GEOG 414 - Floods, Climate and the Environment
GEOG 427 - Internship
GEOG 429 - Storm Chasing and Assessment
GEOG 430 - Global Climate Change
GEOG 452 - Topics in Physical Geography
Elective Courses
At least one of the following: GEOG 401 - Geography of Development
GEOG 403 - Advanced Urban Geography
GEOG 405 - Geography of Food
GEOG 451 - Topics in Human Geography
At least one of the following:
GEOG 418 - Introduction to G.I.S.
GEOG 422 - Remote Sensing
GEOG 424 - Vector-based G.I.S.
GEOG 425 - Raster-based G.I.S.
GEOG 454 - Topics in Geographic Techniques
*Non-geography electives may be considered.

\section*{Graduation Requirements}

To earn a minor in Meteorology and Climatology, students must complete 18 credit hours as described above. A grade of C or better must be achieved in all Minor coursework. Students must complete all University requirements.

\section*{Historical Studies}

Peck Hall 3225
siue.edu/artsandsciences/historicalstudies

\section*{Professors}

Frick, Carole C. (Chair), Ph.D., 1995, University of California - Los Angeles
McClinton, Rowena, Ph.D. 1996, University of Kentucky
Thomason, Allison K., Ph.D., 1999, Columbia University

\section*{Associate Professors}

Cheeseboro, Anthony Q., Ph.D., 1993, Michigan State University
Fowler, Laura L., Ph.D., 2003, Loyola University
Hinz, Christienne, Ph.D., 2001,
The Ohio State University
Jordan, Thomas, Ph.D. 2000, University of Illinois - Urbana-Champaign
Miller, Jennifer, Ph.D., 2008, Rutgers
Paulett, Robert, Ph.D., 2007, College of William \& Mary
Stacy, Jason, Ph.D., 2005, Loyola University Chicago

Tamari, Stephen L., Ph.D., 1998, Georgetown University

\section*{Assistant Professors}

Harris, Jessica, Ph.D., 2011, Cornell University
Jack, Bryan, Ph.D., 2004, Saint Louis University
Manuel, Jeffrey T., Ph.D., 2009,
University of Minnesota
Sjursen, Katrin, Ph.D., 2010,
University of California - Santa Barbara

\section*{Instructors}

Harrison, Victoria, Ph.D. 2007, Saint Louis University

\section*{Program Description}

The study of history begins with questions about how things came to be as they are or were; these questions contribute to a greater understanding of ourselves and others.

Historians approach the study of the past in many ways. Some attempt to analyze the entire spectrum of historical evolution within a particular period or within a specific nation. Others, working within or across national histories, specialize in the history of particular social institutions, such as the family, business or churches, or the historical development of ideologies or of cultural concepts such as race or gender. Historians borrow tools freely from other disciplines. For some historians, the methodologies of the social sciences become critical tools for the study of the past, while others prefer a historical approach more akin to the methods of the humanities and literature. Most adopt some mixture of methodologies.
Some historians argue that studying the past brings them to a better understanding of the present. For them, the past provides useful insights into the current behavior of individuals and institutions. Others stress the uniqueness of every historical situation and are less prone to seek lessons in the past. Most historians contend that the discipline does give students of history a breadth of perspective that improves their ability to understand events and to function in today's world.
Students applying for a major in any history program must have completed the general education requirements for writing skills (English 101 and 102 or equivalent) and all high school course deficiencies. Students should arrange an interview with the undergraduate advisor in history as soon as possible after applying for a major.

\section*{Career Opportunities}

Traditionally a bachelor's degree in Historical Studies has been a tool for two careers: one in teaching; the second being a foundation for attending law school. Additionally, Historical Studies has also been the foundation for careers in archives, museums, and historic preservation; those fields are collectively known as applied history. It is also very important to understand that history is a discipline that provides good students with great writing, research, and critical thinking skills.
These skills allow a motivated person to pursue a wide variety of career paths. There are numerous examples of people who become everything from corporate CEOs to CIA field managers, to Army Generals, who started with Bachelor's degrees in history.
As for specific training, Historical Studies offers social science education for secondary school teaching careers, and a certificate of Museum Studies for careers in applied history. Historical Studies also provides content for the School of Education's Master's of Teaching or MAT program.
For more information on gainful employment programs at SIUE, please visit www.siue.edu/ financialaid/certificate-programs2014.shtml

\section*{Degree Programs}

Bachelor of Arts, History
Bachelor of Science, History
Teacher Licensure (6-12) Program
The Department of Historical Studies has two options within its bachelor's degree program. One, the Bachelor of Arts degree, is often the first step in preparation for a career as a professional historian. It is also excellent preparation for the study of law or for many other kinds of professional training. The other, the Bachelor of Science degree, may be preferred by students contemplating careers in the business world, government service, and journalism and editing.
Students pursuing either a B.A. or a B.S. degree may seek work in the field of Public History, that is, as workers in museums, archives, national parks and monuments or other venues where the services of a person trained in historical analysis are required. To prepare students for this sort of work, the department offers HIST 490, an elective supervised internship with an historical agency for up to 6 hours of credit.

Finally, students planning to teach in public schools may choose either a bachelor of arts or a bachelor of science degree with a major in history. Any of these programs provides an opportunity for students to study subjects of great interest while developing skills that prepare them for a variety of career options. The bachelor of science degree program is identical to the bachelor of arts degree program, except students are not required to study a foreign language. A foreign language is strongly recommended for students planning graduate study.

\section*{Program Overview and General Department Information}

\section*{Admission}

Must pass ENG 102

\section*{Retention}

Must maintain a 2.0 grade point average Must maintain a 2.0 grade point average in all Historical Studies Courses

Transfer
Must have a 2.0 grade point average Courses are accepted pending similarity to Historical Studies offerings and articulation agreements with the student's prior institution.

\section*{Degree Requirements}

Complete all general education and specific program requirements.

Complete four courses of HIST survey courses, 111-201 with a minimum grade of C .
■ Two must be from the European or world surveys
- Two must be from the United States Surveys Students preparing for teacher licensure to teach history or social science must select HIST 112a,b.
Complete six courses of upper level courses 300-499 with a minimum grade of C. Students preparing for licensure to teach history or social studies must select History/Pedagogy, HIST 323.

Complete HIST301 \& HIST401 with a minimum grade of C .
Social Science Education minors must average 3.0 cumulatively in their Historical Studies courses.

\section*{Sample Curriculum for the Bachelor of Arts in History}
Fall Semester
Year 1
HIST Survey Level (Europe or World) (BSS) ..... 3
ENG 101 - English Composition ..... 3
Foreign Language 101 (BICS) ..... 4
ACS 101 or 103-Oral Expression ..... 3
Fine \& Performing Arts (BFPA) ..... 3
Total ..... 16
Year 2
HIST Survey Level (US) (EUSC) ..... 3
Foreign Language 201 (BICS) ..... 4
RA 101 - Reasoning \& Argumentation ..... 3
QR 101, MATH 150 or Higher ..... 3
Physical Science (BPS) ..... 3
Total ..... 16
Year 3
HIST 301 Historical Methods ..... 3
HIST 300-400 level Elective. ..... 3
Upper-level foreign language course (recommended) ..... 4
Fine \& Performing Arts or Humanities ..... 3
Minor. ..... 3
Total ..... 16
Year 4
HIST 401 Historical Research ..... 3
HIST 300-400 level Elective ..... 3
Upper-level foreign language course (recommended) ..... 4
Minor. ..... 2
Total ..... 12
Spring Semester
Year 1
HIST Survey Level (Europe or World) ..... 3
ENG 102 - English Composition II. ..... 3
Foreign Language 102 (EGC) ..... 4
Humanities (BHUM) ..... 3
Life Science (BLS) with a lab (EL) ..... 3
Total ..... 16
Year 2
HIST Survey Level (US) ..... 3
Foreign Language 202 (BICS) ..... 4
Minor. ..... 3
Fine \& Performing Arts or Humanities ..... 3
Minor. ..... 3
Total ..... 16
Year 3
HIST 300-400 level Elective. ..... 3
HIST 300-400 level Elective (Non-Western). ..... 3
Interdisciplinary Studies (IS) ..... 3
Upper-level foreign language course (recommended) ..... 4
Minor. ..... 3
Total ..... 16
Year 4
HIST 300-400 level Elective. ..... 3
HIST 300-400 level Elective. ..... 3
Upper-level foreign language course (recommended) ..... 4
Health Experience (EH). ..... 2
Total ..... 12

\section*{Sample Curriculum for the Bachelor of Science in History}Fall Semester
Year 1
HIST Survey Level (Europe or World) (BSS) ..... 3
ENG 101 - English Composition I ..... 3
RA 101 - Reasoning \& Argumentation ..... 3
ACS 101 or 103-Oral Expression ..... 3
Fine \& Performing Arts (BFPA) ..... 3
Total ..... 15
Year 2
HIST Survey Level (US) .....  3
Life Science (BLS). ..... 3
Health Experience (EH) ..... 3
Minor. ..... 3
Life, Physical or Social Science with a lab (EL) ..... 3
Total ..... 15
Year 3
HIST 301 - Historical Methods ..... 3
HIST 300-400 level Elective ..... 3
Life, Physical or Social Science with a lab (EL) ..... 3
Life, Physical or Social Science/Global Cultures (EGC) ..... 3
Minor. ..... 3
Total ..... 15
Spring Semester
Year 1
HIST Survey Level (Europe or World) ..... 3
ENG 102 - English Composition II. ..... 3
QR 101, MATH 150 or Higher ..... 3
Humanities (BHUM) .....  3
United States Culture (EUSC) ..... 3
Total ..... 15
Year 2
HIST Survey Level (US) ..... 3
Physical Science (BPS). ..... 3
Life, Physical or Social Science ..... 3
Minor. ..... 3
Information \& Communication in Society (BICS) ..... 4
Total ..... 16
Year 3
HIST 300-400 level Elective ..... 3
HIST 300-400 level Elective. ..... 3
Interdisciplinary Studies (IS) ..... 3
Minor. ..... 3
Elective ..... 4
Total ..... 16
Sample Curriculum for the Bachelor of Science in History cont.
Year 4
HIST 300-400 level Elective. ..... 3
HIST 300-400 level Elective. ..... 3
Minor. ..... 3
Elective ..... 3
Elective ..... 4
Total ..... 16

\section*{Year 4}

HIST 401 Historical Research
HIST 300-400 level Elective.
Minor. Minor/Elective 3 3
Total 12

\section*{Sample Curriculum for the Bachelor of Science in History, Teacher Licensure (6-12) Education}

\author{
Fall Semester
}

\section*{Year 1}
HIST 112a - World History (BHUM, EGC) ..... 3
ENG 101 - English Composition I ..... 3
SOC 111 - Introduction to Sociology (BSS) ..... 3
ACS 101 or 103-Oral Expression ..... 3
QR 101, MATH 150 or Higher ..... 3
Total ..... 15
Year 2
HIST Survey Level (US) ..... 3
GEOG 205-Human Geography (BSS, EGC, EL) ..... 3
POLS 111 - Intro to Political Science (BSS) ..... 3
Information \& Communication in Society (BICS) ..... 3
Health Experience (EH). ..... 0/3
Total ..... 12/15
Year 3
HIST 301 - Historical Methods ..... 3
HIST 323-History/Pedagogy ..... 3
HIST 300-400 level Elective ..... 3
ECON 112 -Principles of Microeconomics ..... 3
GEOG 201 - World Regions (BSS, EGC) ..... 3
POLS 112 - American National Government (BSS) ..... 3
Total ..... 18
Year 4
HIST 401 - Historical Research. ..... 3
HIST 300-400 level Elective. ..... 3
CI 315a - Methods of Teaching in the Secondary School ..... 2
Cl 440 - Teaching Reading in Secondary School. ..... 3
EPFR 315 -Education Psychology ..... 3
EPFR 320 - Foundations of Ed in a Multicultural Society. ..... 3
Total ..... 17
Spring Semester
Year 1
HIST 112b - World History (BHUM, EGC) ..... 3
ENG 102 -English Composition II. ..... 3
RA 101 - Reasoning \& Argumentation ..... 3
Fine \& Performing Arts (BFPA) .....  3
Life Science (BLS) ..... 3
Total ..... 15
Year 2
HIST Survey Level (US) ..... 3
ANTH 111b-Human Culture \& Comm (BSS, EGC, EUSC). ..... 3
CIED 100 - Introduction to Education ..... 2
ECON 111 - Principles of Macroeconomics (BSS) ..... 3
GEOG 210 - Physical Geography (BPS) ..... 3
Lab Experience (EL) ..... 3
Total ..... 17
Year 3
HIST 300-400 level Elective ..... 3
HIST 300-400 level Elective. ..... 3
HIST 300-400 level Elective ..... 3
POLS 300, 340, 342, or 370 ..... 3
Interdisciplinary Studies (IS) ..... 3
SPE 400 - The Exceptional Child ..... 3
Total ..... 18
Year 4
Cl 315b - Methods of Teaching in the Secondary School ..... 2
Cl 352 - Student Teaching ..... 10
Total ..... 12

\section*{Minor Requirements}

Three survey courses out of: HIST 111-201.
At least one survey course must be European (111a, b, c) or World history (112a, b), and one must be American history ( \(130,200,201\) ).
Four upper level courses between 300-499 must be taken.
At least three credit hours must be history of an area outside of Europe and the United States
HIST 300 mini courses can be taken for up to six hours, HIST 400 can be taken for up to nine hours.
No minors may take HIST 301 or 401.

\section*{Graduation Requirements}
- Complete all specific program requirements.

■ Students are required to complete a minor.
■ Complete all University requirements including:
- All general education requirements
- A minimum of 120 credit hours
- At least 30 of which must be completed at SIUE
- At least 60 of which must becompleted at a regionally accredited 4 -year institution
- A minimum cumulative grade point average of 2.0

■ Bachelor of Arts only: one year of the same foreign language and 6 courses in fine and performing arts or humanities
■ File an Application for Graduation by the first day of the term in which you plan to graduate.

\section*{Mass Communications}

\author{
Dunham Hall, Room 1031 \\ siue.edu/MASSCOMM
}

\section*{Professors}

Hicks, Gary R., Ph.D., 1998, The University of Texas at Austin (Chair)

\section*{Associate Professors}

Ibroscheva, Elza N., Ph.D., 2005, Southern Illinois University Carbondale

\section*{Assistant Professors}

Baasanjav, Undrah, Ph.D., 2006, Ohio University
Kapatamoyo, Musonda, Ph.D., 2007, Ohio University
Mishra, Suman, Ph.D., 2010, Temple University
Poepsel, Mark, Ph.D., 2011,
University of Missouri-Columbia
Yu, Jason, Ph.D., 2008,
The University of North Carolina at Chapel Hill

\section*{Instructors}

Atwood, Tom, M.S., 2008, Southern Illinois University Edwardsville
Byers, Cory, M.A., 2005, Southern Illinois University Carbondale
Li, Shi, M.J., 2007, Temple University
Merrett-Murry, Tammy, M.A., 1998, Webster University

\section*{Program Description}

The Department of Mass Communications is accredited by the highly selective Accrediting Council on Education in Journalism and Mass Communication (ACEJMC). The program is designed to prepare students for one of the fastest growing and dynamic fields in the United States: mass communication and media arts.
Our curriculum seeks to educate students to be responsive to this fast paced, ever changing professional environment. While some specialized skills are essential to enable students to meet current standards, the goal
of the Mass Communications curriculum is to produce graduates who are independent professional communicators capable of critically and creatively producing media messages for the diversity of groups in an increasingly global society.
To meet the challenges of the mass communications industries of the 21st century and to provide students with a comprehensive mass communications background, this department's curriculum consists of four components: the introductory core, a professional option, the advanced core and Mass Communications electives. The introductory core of three courses consists of an introduction to mass communication plus two basic skills courses. MC 201 (Mass Media in Society) encourages an appreciation for the significant ideas, events and individuals that influenced the development of mass media systems and continue to guide their evolution. In the two introductory skills courses, MC 202 (Writing for the Media) and MC 204 (Introduction to Television and Audio Production), students learn how to use the tools and technologies appropriate for the communications professions in which they will work. But beyond these technical skills, students are also trained in essential analytical skills and artistic skills in writing (accuracy, fairness, and clarity) and in audio and visual media production. These fundamental media skills are broadly applicable and not bound to specific technologies that may be threatened by obsolescence. Students are required to choose and to complete a professional option consisting of five courses. The options are: Print and Electronic Journalism, Television/Radio, Corporate and Institutional Media, and Media Advertising. The two anchor courses in each professional option are essential to developing proficiency in a specific media concentration. A choice of three additional courses from the remaining eight to ten courses in an option permits a faculty advisor to help a student focus his/her program in the direction best suited to that student's career aspirations.
The advanced core encourages students to develop a deeper understanding of the social, political, legal, economic, artistic and technological environment in which media products are produced, delivered and consumed. Further, the advanced core emphasizes issues related to ethics and diversity, and encourages students to think carefully and critically about the nature and significance of the media in our society. Included in the advanced core are

MC 327 (Designing \& Writing for the World Wide Web), MC 401 (Media Law and Policy), MC 403 (Media Critical Theory), and MC 481 (Internship/Senior Portfolio). A professional internship off campus provides real-life work experience and valuable contacts for the student; the senior portfolio assignment helps students prepare for graduation and for advantageous positioning in the employment marketplace.
The curriculum also provides for one open major elective course. This provision enables students not only to explore their own cross-media educational interests, but also, with the aid of faculty advisors, to further position themselves for their particular career goals. To provide graduates with additional competencies in other disciplines, a minor in a subject outside the major also is required.

\section*{An Ideal Location}

The St. Louis metropolitan area is the 21st largest media market in the United States. SIUE's Mass Communications Department program takes advantage of the resources of the region by regularly scheduling media professionals for guest appearances in classes, by employing working professionals as part-time faculty, and by sponsoring events such as Mass Communications Week, in which a number of programs on topics as varied as the job search, television and film lighting, independent video producing in St. Louis, virtual media for corporate communications, and a dialogue with a St. Louis Post-Dispatch columnist are conducted by working professionals and the faculty.

\section*{Career Opportunities}

The Department of Mass Communications graduates take many career paths. Today dozens of careers are available for print journalism students. Besides working as reporters, editors, sports writers or photojournalists on newspapers and online environments, graduates may land their first jobs with news wire services, organizational and professional newsletters, national, regional and local magazines, trade periodicals and in corporate communications. Recent electronic journalism graduates report success in radio, television and news-related occupations. Rooted in the traditional study of print journalism, the electronic journalism professional option prepares graduates for a growing number of news writing, reporting, newsroom management, documentary production and Internet news sites.

Media advertising is all around us. To name a few, ads can always be found on radio, television, newspapers, magazines and other print media, as well as on billboards, the sides of buses and taxis, on T-shirts, baseball caps and lunch boxes, in the movies, on the Internet and even on the bags you use to carry home your purchases. Mass Communications Department graduates work for ad agencies, for marketing departments of major corporations, for sales departments of media organizations and in many other ancillary jobs in marketing. In ad agencies, graduates are successful, both on the creative side and as account executives, media specialists and buyers.
Recent Television/Radio graduates report that there are many more jobs "out there" than they imagined when they first enrolled at SIUE. Besides finding employment at television and radio stations, SIUE graduates are writing and producing videos for public relations clients, working in industrial and corporate communications, serving the video needs of hospitals, schools, colleges, and law offices, plus designing and producing interactive video and audio for web sites. And yes, many graduates still find jobs in radio and broadcast or cable television in news, production, sales, traffic, promotions, operations, and other departments. The new kind of broadcasting graduate this department produces is a valuable commodity throughout the mass communications job market.
Corporations and institutions have learned they can't do without media specialists, and they come to SIUE to find the specialists they need to communicate with their stockholders, their employees, the public in fact, all their "publics," as public relations practitioners call their audiences. Working in marketing, public relations, and corporate media (video, digital, multimedia, web, print), SIUE's professional communicators create and deliver the messages for business, industry, institutions and organizations. Interactive multimedia, web site design and construction, computerized manipulation of visual images, digital photojournalism, digital publishing, non-linear video editing, digital animation and many other 21st-century mass communication skills.
Integrated into all these professional options is the study and practice of the leading-edge skills, techniques, theories and aesthetics SIUE graduates will need to succeed in a digital future for webmasters, interactive multimedia producers and many new digital media jobs as
yet unnamed. SIUE students learn the tried-andtrue mass communication basics as well as the most advanced digital media techniques needed to excel in this brave new world.

\section*{Degree Programs}

Bachelor of Arts, Mass Communications Bachelor of Science, Mass Communications Areas of Interest:
Corporate and Institutional Media Media Advertising
Print and Electronic Journalism Television/Radio

\section*{Program Overview and General Department Information}

\section*{Admission}

Except for incoming freshmen, students wishing to apply for a major in mass communications are required to:

■ complete all Academic Development courses required by the University;
- complete any required courses to address high school deficiencies;
■ achieve a minimum cumulative grade point average of 2.2 at SIUE;
■ complete MC 201 and 202 with a grade of C or better.

\section*{Retention}

Mass Communications majors must maintain a 2.2 overall grade point average.

Students may attempt (complete a course and receive a grade) any Department of Mass Communications course only twice. If a student fails to achieve a C grade or better in a course after a second attempt, she/he must petition the Mass Communications Department faculty for the opportunity to attempt the course again.

\section*{Transfer}

The department will accept a maximum of 18 semester hours transferred from any other accredited higher education institution toward completion of the Mass Communications major: the remainder of a student's 39 hour major must be completed in this department.

The department will accept a maximum of 9 semester credits transferred from any other accredited higher education institution toward completion of the Mass Communications minor: the remainder of a student's 21 hour minor must be completed in this department.
All mass communications courses that a student wishes to transfer should have a minimum grade of C . The burden of proof that a course meets
a requirement in the Mass Communications major is the responsibility of the student and the institution from which the course in transferred.
Transfer students should contact the Mass Comm Dept. Chair for a course transfer review.

\section*{Degree Requirements}

\section*{General Education (42-44 hours)}

University general education requirements are outlined in the General Education section of this catalog and included in the sample curriculum outline. Mass Communications majors must complete Philosophy 481: Media Ethics, as part of their program of study.
To ensure that Mass Communications majors learn to apply basic numerical and statistical concepts, each must complete one of the following options:
Choose either STAT 107, Concepts of Statistics; STAT 244, Statistics; or STAT 380, Statistics for Applications, to complete the SIUE General Education skills courses requirement; or

If a Mass Communications major chooses a minor in Speech Communication, complete ACS 329, Communication Research Methods; or

Choose MC 451, Research Methods in Mass Media, either as a Mass Communications Department elective or as one of the student's three selected courses in the Media Advertising or Corporate and Institutional Media professional options.
All Mass Communications majors must complete a minimum of 72 semester hours in courses outside the Department of Mass Communications.

\section*{Introductory Core Requirements (9 hours) \\ MC 201, MC 202 and MC 204}

Advanced Core (12 hours)
MC 327, MC 401, MC 403 and MC 481

\section*{Professional Option (15 hours)}

Choose one of the following Mass Communications options:

\section*{Corporate and Institutional Media}

MC 402 Media Management
MC 422 Writing for the Corporate \& Institutional Market
Three of the following courses chosen in consultation with a Mass Communications Department advisor:

MC 321 Feature Writing
MC 323 Publication Layout and Design
MC 330 Advanced Broadcast Writing
MC 342 Digital Imagery
MC 431 Corporate \& Nonbroadcast Video

\author{
MC 441 Multimedia Use in Mass Media \\ MC 451 Research Methods in Mass Media \\ MC 453 Transnational \\ Media Media Advertising \\ MC 325 Fundamentals of Advertising \\ MC 389 Media Planning \\ Three of the following courses chosen in consultation with a \\ Mass Communications Department advisor: \\ MC 323 Publication Layout and Design \\ MC 326 Advertising Copywriting \& Design \\ MC 334 Electronic Media Advertising \\ MC 342 Digital Imagery \\ MC 421 Advertising Campaigns \\ MC 440 Visual Media Analysis \\ MC 449 Media Psychology \\ MC 451 Research Methods in Mass Media \\ Print and Electronic Journalism \\ MC 322 Copy Editing For The Media \\ MC 324 Public Affairs Reporting \\ Three of the following courses chosen in consultation with a \\ Mass Communications Department advisor: \\ MC 321 Feature Writing \\ MC 323 Publication Layout and Design \\ MC 330 Advanced Broadcast Writlng \\ MC 332 Electronic Media News
}

MC 341 Sports Journalism
MC 342 Digital Imagery
MC 424 The Literature of Journalism
MC 447 Photojournalism

\section*{Television/Radio}

MC 330 Advanced Broadcast Writing MC 402 Media Management

Three of the following courses chosen in consultation with a Mass Communications Department advisor:

MC 301 Radio Production
MC 331 Electronic Media Performance
MC 333 Advanced Video Writing and Production
MC 334 Electronic Media Advertising
MC 423a, b Advanced Topics in Writing for the Media
MC 431 Corporate and Non-broadcast Video
MC 433 Advanced Video Directing and Producing
MC 440 Visual Media Analysis
MC 441 Multimedia Use in Mass Media
MC 454 Documentary Media
Mass Communications Electives (3 hours)
Minor Outside of Mass Communications (18-21 hours)
University Electives (19-22 hours)
Only mass communications courses in which the student receives a C grade or better will be accepted for credit toward completion of the Mass Communications major or minor.

\section*{Sample Curriculum for the Bachelor of Science in Mass Communications}
Fall Semester
Year 1
MC 201 - Mass Media in Society ..... 3
ENG 101-English Composition I ..... 3
ACS 101 - Public Speaking ..... 3
QR 101, MATH 150 or Higher ..... 3
Fine \& Performing Arts Breadth (BFPA) ..... 3
Total ..... 15
Year 2
MC 204 - Into to Television \& Audio Production ..... 3
Information \& Communication in Society Breadth (BICS) ..... 3
Physical Science Breadth (BPS) ..... 3
Minor. ..... 3
Minor ..... 3
Total ..... 15
Year 3
MC Professional Option ..... 3
Life, Physical or Social Science/Global Cultures (EGC) ..... 3
Minor. ..... 3
Minor. ..... 3
Life, Physical or Social Science with a lab (EL) ..... 3
Total ..... 15
Year 4
MC 401 - Media Law \& Policy ..... 3
PHIL 481 - Media Ethics ..... 3
Life, Physical or Social Science ..... 3
Life, Physical or Social Science ..... 3
Health Experience (EH). .....  3
Total ..... 15
Spring Semester
Year 1
MC 202 - Writing for the Media ..... 3
ENG 102 - English Composition II .....  3
RA 101 - Reasoning \& Argumentation ..... 3
Humanities Breadth (BHUM)/United States Cultures (EUSC) ..... 3
Life Science Breadth (BLS) with a lab (EL) ..... 3
Total ..... 15
Year 2
MC Professional Option ..... 3
MC Professional Option ..... 3
Social Science Breadth (BSS) .....  3
Minor. .....  3
MC 327 - Designing and Writing for the World Wide Web ..... 3
Total ..... 15
Year 3
MC Professional Option .....  3
MC Professional Option ..... 3
Interdisciplinary Studies (IS) ..... 3
Life, Physical or Social Science ..... 3
Minor ..... 3
Total ..... 15
Year 4
MC 403 - Media Critical Theory. ..... 3
MC 481 - Internship/Senior Portfolio ..... 3
MC Elective ..... 3
Minor/Elective ..... 3
Elective ..... 3
Total ..... 15
Students wishing to obtain a Bachelor of Arts degree may do so by taking 8 courses in fine and performing ars or humanities to include two semesters of the same foreign language.

\section*{Mass Communications Minor}

The Mass Communications minor requires MC 201 and 202 and additional courses selected in consultation with a departmental minor advisor for a total of 21 hours.

\section*{Graduation Requirements}

■ Complete all specific program requirements.
- Complete all University requirements including:

■ All general education requirements
- A minimum of 120 credit hours
- At least 30 of which must be completed at SIUE
- At least 60 of which must becompleted at a regionally accredited 4 -year institution
- A minimum cumulative grade point average of 2.2
■ Bachelor of Arts only: one year of the same foreign language and a minimum of 6 courses in fine and performing arts or humanities

File an Application for Graduation by the first day of the term in which you plan to graduate.

\section*{Mathematics and Statistics}

Vadalabene Center, Room 1036
siue.edu/artsandsciences/math
Distinguished Research Professors
Jarosz, Krzysztof, Ph.D., 1982, University of Warsaw
Ledzewicz, Urszula, Ph.D., 1984, University of Lodz
Sewell, Edward C., Ph.D., 1990, Cornell University

\section*{Professors}

Agustin, Marcus, Ph.D., 1997, Bowling Green State University
Agustin, Zenia, Ph.D., 1997, Bowling Green State University
Lu, Chunqing, Ph.D., 1986, University of New York at Buffalo
Neath, Andrew A., Ph.D., 1994, University of California, Davis
Pelekanos, George, Ph.D., 1997, University of Delaware

\section*{Associate Professors}

Chew, Song Foh, Ph.D., 2005, Purdue University
Leem, Koung Hee, Ph.D., 2003, University of Iowa

Parish, James L., Ph.D., 1985, University of Chicago
Song, Myung-Sin, Ph.D., 2005, University of Iowa
Staples, G. Stacey, Ph.D., 2004, Southern Illinois University Carbondale
Voepel, Tammy M., Ph.D., 1997, University of Missouri-Columbia
Weyhaupt, Adam G. (Chair), Ph.D., 2006, Indiana University

\section*{Assistant Professors}

Bartlett, Andrew, Ph.D., 2013, University of Georgia
Choi, Daeshik, Ph.D., 2013, University of Washington
Eames, Cheryl, Ph.D., 2014, Illinois State University
Pailden, Junvie, Ph.D., 2013, Bowling Green State University
Traub, Cynthia, Ph.D., 2006, Washington University

\section*{Program Description}

Mathematics, the queen of sciences, is both a language and a science. As a language, mathematics is used to translate relationships within the universe into mathematical expressions and equations, that is, into mathematical models. The importance of mathematics in this regard was emphasized by Galileo more than three centuries ago when he said, "the laws of nature are written in the language of mathematics." Throughout history, mathematics has had an important role in the efforts of the human race to understand the world and to control the environment. As a science, mathematics is concerned not only with computation, but, more importantly, with the study of relations, interdependencies, and inferential structures. It is a rapidly growing field of study, concerned with problems from within mathematics and from the social sciences as well as the natural sciences. Consequently, students who major in mathematics have a wide range of career opportunities open to them.
With the progress in computers and computing technology, knowledge of the mathematical sciences is more important today than ever before. Having had a central role in the natural sciences for many years, mathematics has become more and more useful in the social sciences and in the humanities. Economics, political science, sociology, psychology and other social sciences now rely on mathematics, particularly statistics, to understand, to control and to predict social phenomena.

The Department of Mathematics and Statistics offers programs leading to a bachelor of arts or a bachelor of science degree with a major in mathematical studies. In addition, as a result of the various applications of mathematical sciences, the department offers a variety of service courses for students majoring in other disciplines. Please note that most of the courses in this department have other courses as prerequisites. Before enrolling in a course in mathematics, statistics or operations research, students must complete the prerequisite(s) with a grade of C or higher. A grade of D in a prerequisite course indicates inadequate preparation to continue to the next course.

\section*{Career Opportunities}

Because mathematics provides the basic language and method for science and technology, a country needs to have many people who are well trained in mathematical subjects in order to be technologically competitive in a world economy. Mathematicians, statisticians, actuaries, and mathematical educators will continue to be needed by the government, industry, business, and schools. For a student in engineering, physics or computer science, a second major in mathematics may not require a great deal of additional course work, while enhancing the student's background in his or her first major. A mathematics major is also appropriate preparation for graduate studies in several areas including mathematics, operations research, statistics, engineering and law. Statistics provides career possibilities that deserve special mention. Students with undergraduate majors in statistics may find positions doing actuarial work with insurance companies or doing work in quality control and reliability with industrial firms.

Also, recent job studies indicate shortages of statisticians and operations researchers trained at the graduate level. Some students enter professional programs in business, law, and medicine after completing a mathematics major. And, of course, the continuing need for highly motivated, well trained mathematics teachers in the schools has been well publicized.

Departmental advisors can provide information about career possibilities in the mathematical sciences and can suggest elective courses that would be appropriate to various career goals and interests, including the intention to pursue graduate studies.

\section*{Degree Programs}

Bachelor of Arts, Mathematical Studies
Specializations available in the following:
Actuarial Science
Applied Mathematics
Pure Mathematics
Statistics
Bachelor of Science, Mathematical Studies
Specialization available in the following:
Actuarial Science
Applied Mathematics
Pure Mathematics
Statistics
Teacher Licensure (6-12) Program is available

\section*{Program Overview and General Department Information}

\section*{Admission}

For purposes of this Department, the grade point average in university mathematics/statistics/ operations research courses will be computed on the basis of all courses attempted. In the case of repeated attempts on the same SIUE mathematics/statistics/operations research course, the grades for the second and all subsequent attempts will be used in computing the grade point average.
To be admitted to the mathematics and statistics program, students must satisfy one of the following:
■ Complete MATH 120 and 125, or mathematics courses having these as prerequisites (or equivalent courses at another accredited institution of higher education), have a GPA of 2.0 or higher in all university mathematics courses, and have a GPA of 2.0 or higher in all SIUE courses taken.
■ Complete in high school seven semesters of university preparatory mathematics courses, including a course in trigonometry, and have no grade lower than a C in those courses. Students who do not qualify for admission into an academic program in the department but hope to seek admission later are encouraged to obtain advice from a faculty member in the department.
For purposes of computing the GPA of a student seeking admission, the student may not use credit hours earned through proficiency, transfer, CLEP, or from a course, after credit has been received for similar or more advanced course work in the subject at SIUE or elsewhere. For readmission to the Department, students must have a C or better in Math 223, have a GPA of 2.0 or higher in all university mathematics courses, and have a GPA of 2.0 or higher in all SIUE courses taken.

A student who has been dropped from the Department may be readmitted at most once.

\section*{Retention}

In order to be retained, students must
■ Maintain a cumulative grade point average of 2.0 in mathematics, statistics and operations research.
- Maintain a term grade point average above 1.0 in every term.

■ Not have withdrawn, received incomplete grades, or a combination of failing grades in 50 percent or more of the courses for which the student is registered during two successive terms.
■ Not have any combination of three grades of D, F, UW, WP, or WF in any single required course in mathematics, statistics, or operations research.

\section*{Transfer}

Courses listed at siue.edu/transfer/transfer-credit-equivalency-guides.shtml will be transferred automatically and will apply toward degree requirements as appropriate, provided a grade of C or better was earned. For courses not included on the list, decisions are made on an individual basis. The student must provide an official detailed description of the course to the Chair of the Department of Mathematics and Statistics. Students must earn at least 30 hours in residence at SIUE.

\section*{General Education Requirements for the Major}

Students seeking majors in this department may choose to be awarded the bachelor of arts degree rather than the bachelor of science degree, provided the electives include 8 hours of credit in a foreign language that is neither English nor the student's native language as well as 6 courses in fine and performing arts or humanities.

Students must choose from one of the five programs described below, which include four options in mathematical studies and a major in mathematics for secondary school teachers. Through a choice of electives, students may adjust these programs to their goals and interests.

In addition to the specific requirements stated below for each program, students must meet the following requirements:
- Earn a minimum of 120 hours of acceptable credit with a cumulative grade point average of 2.0 or higher;

■ Complete at least 12 hours of SIUE credit in major courses numbered 300 or above with a cumulative GPA of 2.0 or higher;
- Earn a GPA of 2.0 or higher in all mathematics, statistics, or operations research courses numbered 300 or above at SIUE within 2 years preceding graduation;
- Complete at least 9 hours of credit in mathematics, statistics, or operations research courses numbered 300 or above at SIUE, excluding Math 498 and Math 499, within 2 years preceding graduation.
Duplicate credits earned (through proficiency, transfer, CLEP, or from a course) after credit has been received for similar or more advanced course work in the subject at SIUE or elsewhere are not applicable toward graduation. Students who receive a grade of \(D\) in any mathematics, statistics, or operations research course may not count that course toward requirements for a mathematics major.

\section*{Degree Requirements}

All programs offered by the Department of Mathematics and Statistics require completion of the mathematics core, which consists of the following courses:

■ Mathematics 150, 152, 250, 223, 321, and 350.
■ Completion of Computer Science 145 (with a grade of C or better) and
- Physics 151 and 151L (with a grade of C or better) also are required for all programs.
These courses total 32 hours, of which 5 are applicable to general education requirements. (Physics 151 satisfies 4 hours of the breadth area requirements. Physics 151L satisfies the laboratory requirement.)
All seniors are required to take MATH 498 and 499 (Senior Seminar and Senior Project), which carry 2 credits each. MATH 499 is graded Satisfactory or Unsatisfactory. Passing this course is required for graduation. The student is required to consult with a member of the mathematics/statistics faculty to prepare a proposal for a culminating project. The Undergraduate Program Committee must approve all proposals. The completed project is evaluated by a Project Evaluation Committee and includes both the documentation and an oral presentation by the student. Members of the faculty are invited to attend the oral presentation.

Degree Requirements B.A. or B.S. Mathematical Studies, with a specialization in Actuarial Science
\begin{tabular}{llll} 
MATH 150 & MATH 152 & MATH 223 & MATH 250 \\
MATH 305 & MATH 321 & MATH 340 & MATH 350 \\
MATH 465 & MATH 498 & MATH 499 & STAT 480a \\
STAT 480b & STAT 482 & STAT 486a & OR 441 \\
CS 145 & PHYS 151 & PHYS 151L & ECON 111 \\
ECON 112 & ACCT 200 & ACCT 210 & FIN 320 \\
FIN 420 & & &
\end{tabular}

6 hours of MATH, STAT, or OR electives selected from STAT 478, STAT 485, OR 442, or MATH 466
3 hours of finance electives
Degree Requirements B.A. or B.S.
Mathematical Studies, with a specialization in Applied Mathematics
\begin{tabular}{llll} 
MATH 150 & MATH 152 & MATH 223 & MATH 250 \\
MATH 305 & MATH 321 & MATH 350 & MATH 451 \\
MATH 464 & MATH 465 & MATH 466 & MATH 498 \\
MATH 499 & CS 145 & PHYS 151 & PHYS 151L \\
PHYS 152 & PHYS 152L & &
\end{tabular}

9 hours of MATH, STAT, or OR electives chosen from one of the options below

MATH 320 and two additional courses selected from MATH 421, 437, 450, OR 440, 441, 442, STAT 480a,b

STAT 380 and two additional courses selected from MATH 421, 437, 450, OR 440, 441, 442.
STAT 480a,b and one additional course selected from MATH 421, 437, 450, OR 440.

MATH 421 and two additional courses selected from MATH 437, 450, OR 440, 441, 442, STAT 480a,b.
6 hours of science or engineering electives
Degree Requirements B.A. or B.S.
Mathematical Studies, with a specialization in Pure Mathematics
\begin{tabular}{llll} 
MATH 150 & MATH 152 & MATH 223 & MATH 250 \\
MATH 320 & MATH 321 & MATH 350 & MATH 420 \\
MATH 421 & MATH 450 & MATH 451 & MATH 498 \\
MATH 499 & CS 145 & PHYS 151 & PHYS 151L
\end{tabular}

Either MATH 435 or MATH 437
3 hours of MATH electives at the 400 level
12 hours of mathematics, statistics, operations research, courses from the School of Engineering, biology, chemistry, or physics at the 200 level or above

Degree Requirements B.A. or B.S. Mathematical Studies, with a specialization in Statistics
\begin{tabular}{llll} 
MATH 150 & MATH 152 & MATH 223 & MATH 250 \\
MATH 321 & MATH 350 & MATH 498 & MATH 499 \\
STAT 480a & STAT 480b & STAT 482 & CS 145 \\
PHYS 151 & PHYS 151L & &
\end{tabular}

12 hours of MATH, STAT, or OR electives (Any four courses chosen from STAT 478, 481, 483, 484, 485, 486a, 487, 488; Operations Research 440, 441, 442; MATH 465, 466, except that only one of Operations Research 440, MATH 465, 466, may be counted toward this requirement.)
18 hours of Supporting Courses (Either a minor, or nine additional hours of mathematics, statistics, or operations research and nine hours of supporting courses approved by the advisor.)

\section*{Degree Requirements B.S. Mathematical Studies, with Teacher Licensure (6-12)}

Admission to a teacher education program is a joint decision by the academic discipline in the College of Arts and Sciences and the School of Education. Therefore, it is essential that any student desiring teacher licensure meet with an advisor in the School of Education Student Services for admission to the teacher education program.
\begin{tabular}{llll} 
MATH 150 & MATH 152 & MATH 223 & MATH 250 \\
MATH 311 & MATH 320 & MATH 321 & MATH 350 \\
MATH 400 & MATH 435 & MATH 498 & MATH 499 \\
CS 145 & STAT 380 & PHYS 151 & PHYS 151L \\
Cl 200 & Cl 315a & Cl 315b & Cl 352 \\
Cl 440 & EPFR 315 & EPFR 320 & SPE 400
\end{tabular}

6 hours of MATH, STAT, or OR electives chosen from one of the options below
a) MATH 305 and one 400 -level MATH, STAT, or OR course
b) Two 400-level MATH, STAT, or OR courses

\section*{Sample Curriculum for the Bachelor of Science Degree in Mathematical Studies: Actuarial Science}
Fall Semester
Year 1
MATH 150 - Calculus I (QR) ..... 5
ECON 111 - Principles of Macroeconomics (BSS) ..... 3
ENG 101 - English Composition I ..... 3
ACS 101 or 103-Oral Expression ..... 3
Total ..... 14
Spring Semester
Year 1
MATH 152 - Calculus II (BPS) ..... 5
CS 145 - Introduction to Computing I ..... 3
ECON 112 - Principles of Microeconomics (BSS). ..... 3
ENG 102 - English Composition II ..... 3
RA 101 - Reasoning \& Argumentation .....  3
Total ..... 17

\section*{Sample Curriculum for the Bachelor of Science Degree in Mathematical Studies: Actuarial Science cont.}
Fall Semester Spring Semester
Year 2
MATH 250 - Calculus III (BPS) ..... 4
MATH 223 - Logic and Mathematical Reasoning ..... 3
PHYS 151 - University Physics I (BPS) ..... 4
PHYS 151L - University Physics I Lab (EL) ..... 1
ACCT 200 - Fundamentals of Financial Accounting ..... 3
Total ..... 15
Year 3
MATH 340 - Theory of Interest ..... 3
STAT 480a - Introduction to Mathematical Statistics ..... 3
MATH 465 - Numerical Analysis ..... 3
FIN 320 - Finance Management and Decision Making ..... 3
Life Science (BLS) ..... 3
Total ..... 15
Year 4
MATH, STAT, or OR elective ..... 3
MATH 498 - Senior Seminar ..... 2
FIN 420 - Problems in Corporate Finance ..... 3
Life, Physical or Social Science with a lab (EL) ..... 5
Total ..... 13
Year 2
MATH 305 - Differential Equations ..... 3
MATH 321 - Linear Algebra I ..... 3
MATH 350 - Introduction to Analysis ..... 3
ACCT 210 - Managerial Accounting ..... 3
Fine \& Performing Arts (BFPA) ..... 3
Humanities (BHUM)/Global Cultures (EGC) ..... 3
Total ..... 18
Year 3
STAT 480b - Introduction to Mathematical Statistics . ..... 3
STAT 486a - Actuarial Mathematics ..... 3
Finance elective ..... 3
OR 441 - Stochastic Models ..... 3
Interdisciplinary Studies (IS)/US Cultures (EUSC) ..... 3
Total ..... 15
Year 4
STAT 482 - Regression Analysis. ..... 3
MATH, STAT, or OR elective ..... 3
MATH 499 - Senior Project ..... 2
Health Experience (EH). ..... 2
Information \& Communication in Society (BICS) ..... 3
Total ..... 13
Sample Curriculum for the Bachelor of Science Degree in Mathematical Studies: Applied Mathematics
Fall Semester
Year 1
MATH 150 - Calculus I (FQR) ..... 5
ENG 101 - English Composition ..... 3
ACS 101 or 103-Oral Expression ..... 3
RA 101 - Reasoning \& Argumentation ..... 3
Total ..... 14
Year 2
MATH 250 - Calculus III (BPS) ..... 4
PHYS 151 - University Physics I (BPS) ..... 4
PHYS 151L - University Physics I Lab (EL) ..... 1
MATH 223 - Logic and Mathematical Reasoning ..... 3
Life Science (BLS). ..... 3
Total ..... 15
Year 3
Electives ..... 6
MATH, STAT, or OR elective ..... 3
Science or Engineering elective. ..... 3
Global Cultures (EGC) .....  3
Total ..... 15
Year 4
MATH 465 - Numerical Analysis ..... 3
MATH 498 - Senior Seminar ..... 2
MATH, STAT, or OR elective ..... 3
Health Experience (EH) ..... 3
Electives ..... 4
Total ..... 15
Spring Semester
Year 1
MATH 152 - Calculus II (BPS) ..... 5
CS 145 - Introduction to Computing I ..... 3
Social Science (BSS) ..... 3
Fine \& Performing Arts (BFPA) ..... 3
ENG 102 - English Composition II ..... 3
Total ..... 17
Year 2
PHYS 152 - University Physics I (BPS) ..... 4
PHYS 152L - University Physics I Lab (EL) ..... 1
MATH 305 - Differential Equations ..... 3
MATH 321 - Linear Algebral. ..... 3
MATH 350 - Introduction to Analysis ..... 3
Humanities (BHUM) ..... 3
Total ..... 17
Year 3
MATH 451 - Introduction to Complex Analysis ..... 3
MATH 464 - Introduction to Partial Differential Equations3 Science
or Engineering elective ..... 3
Interdisciplinary Studies (IS)/US Cultures (EUSC) ..... 3
MATH, STAT, or OR elective ..... 3
Total ..... 15
Year 4
MATH 466 - Numerical Linear Algebra with Applications. ..... 3
MATH 499 - Senior Project ..... 2
Information \& Communication in Society (BICS) ..... 3
Electives ..... 4
Total ..... 12

\section*{Sample Curriculum for the Bachelor of Science Degree in Mathematical Studies: Pure Mathematics}
Fall Semester
Year 1
MATH 150 Calculus I (FQR) ..... 5
ENG 101 -English Composition I .....  3
ACS 101 or 103-Oral Expression ..... 3
RA 101- Reasoning \& Argumentation ..... 3
Fine \& Performing Arts (BFPA) ..... 3
Total ..... 17
Year 2
MATH 250 - Calculus III (BPS) ..... 4
PHYS 151 - University Physics I (BPS) ..... 4
PHYS 151L - University Physics I Lab (EL) ..... 1
MATH 223 - Logic and Mathematical Reasoning ..... 3
Elective. ..... 3
Total ..... 15
Year 3
MATH 320 - Introduction to Algebraic Structures ..... 3
MATH 421 Linear Algebra II ..... 3
MATH 450 - Real Analysis I ..... 3
MATH, STAT, OR, Science or Engineering elective ..... 3
Humanities (BHUM)/ Global Cultures (EGC) ..... 3
Total ..... 15
Year 4
Health Experience (EH) ..... 3
MATH 498 - Senior Seminar ..... 2
MATH, STAT, or OR, Science or Engineering elective ..... 3
400-level Math Elective ..... 3
Electives ..... 3
Total ..... 14Fall SemesterYear 1
MATH 150 - Calculus I (FQR) ..... 5
ENG 101 -English Composition I ..... 3
ACS 101 or 103-Oral Expression ..... 3
RA 101 - Reasoning \& Argumentation ..... 3
Total ..... 14
Year 2
MATH 250 - Calculus III (BPS) ..... 4
PHYS 151 - University Physics I (BPS) ..... 4
PHYS 151L - University Physics I Lab (EL) ..... 1
MATH 223 - Logic and Mathematical Reasoning ..... 3
Life Science (BLS) with a lab (EL) ..... 4
Total ..... 16
Year 3
STAT 480a - Introduction to Mathematical Statistics ..... 3
MATH, STAT, or OR electives ..... 6
Supporting Course ..... 3
Health Experience (EH) ..... 3
Total ..... 15
Spring Semester
Year 1
MATH 152 - Calculus II (BPS).5
CS 145-Introduction to Computing I ..... 3
ENG 102 - English Composition II ..... 3
Social Science (BSS) ..... 3
Total ..... 14
Year 2
Math 321 - Linear Algebra I ..... 3
MATH 350 - Introduction to Analysis . ..... 3
MATH, STAT, OR, Science or Engineering elective ..... 3
Information \& Communication in Society (BICS) ..... 3
Electives ..... 3
Total ..... 15
Year 3
MATH 420 - Abstract Algebra ..... 3
MATH 437 - Differential Geometry. ..... 3
Life Science (BLS) ..... 3
Interdisciplinary Studies (IS) ..... 3
MATH, STAT, or OR, Science or Engineering elective ..... 3
Total ..... 15
Year 4
MATH 499 - Senior Project ..... 2
United States Cultures Experience (EUSC). ..... 3
MATH 451 - Introduction to Complex Analysis ..... 3
Electives ..... 7
Total ..... 15
Sample Curriculum for the Bachelor of Science in Mathematical Studies: Statistics
Spring Semester
Year 1
MATH 152 - Calculus II ..... 5
CS 145-Introduction to Computing I ..... 3
ENG 102 - English Composition II .....  3
Fine \& Performing Arts (BFPA) ..... 3
Social Science (BSS) ..... 3
Total ..... 17
Year 2
MATH 321 - Linear Algebra I. ..... 3
MATH 350 - Introduction to Analysis ..... 3
Supporting Courses ..... 3
Information \& Communication in Society (BICS) .....  3
Humanities (BHUM)/Global Cultures (EGC) ..... 3
Total ..... 15
Year 3
STAT 480b - Introduction to Mathematical Statistics . ..... 3
MATH, STAT, or OR elective ..... 3
Supporting Courses ..... 6
Elective ..... 3
Total ..... 15

\section*{Sample Curriculum for the Bachelor of Science in Mathematical Studies: Statistics cont.}
Fall Semester Spring Semester
Year 4
MATH 498 - Senior Seminar .....  2
MATH, STAT, or OR elective ..... 3
Supporting Courses ..... 3
Interdisciplinary Studies (IS) ..... 3
United States Cultures Experience (EUSC) ..... 3
Total ..... 14
Year 4
STAT 482 - Regression Analysis. ..... 3
Supporting Course ..... 3
MATH 499 - Senior Project .....  2
Electives ..... 6
Total ..... 14

\section*{Sample Curriculum for the Bachelor of Science in Mathematics - Teacher Licensure (6-12)}

Fall Semester
Year 1
MATH 150-Calculus I (QR) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
5
ENG 101 - English Composition I5
ACS 103 - Interpersonal Communication (EUSC) ..... 3
RA 101 - Reasoning \& Argumentation ..... 3
Total ..... 14
Year 2
MATH 250 - Calculus III (BPS) ..... 4
MATH 223 - Logic and Mathematical Reasoning ..... 3
CIED 100 - Introduction to Education ..... 3
Social Science (BSS) ..... 3
Fine \& Performing Arts (BFPA) ..... 3
Total ..... 16
Year 3
MATH 320 - Introduction to Abstract Algebra ..... 3
STAT 380 - Statistics for Application (BICS) ..... 3
EPFR 315 -Educational Psychology ..... 3
MATH, STAT, or OR elective ..... 3
Interdisciplinary Studies (IS) ..... 3
Total ..... 15
Year 4
MATH 311 - The Teaching of Secondary Mathematics ..... 3
MATH 435 - Foundations of Geometry ..... 3
MATH 498 - Senior Seminar ..... 2
Cl 440 - Teaching Reading in the Secondary School ..... 3
Cl 315 a - Methods of Teaching in the Secondary School .....  2
MATH, STAT, or OR elective ..... 3
Total ..... 16
Spring Semester
Year 1
MATH 152 - Calculus II (BPS). ..... 5
CS 145 - Introduction to Computing for Engineers ..... 3
PHYS 151 - University Physics I (BPS) ..... 4
PHYS 151L - University Physics I Lab(EL) ..... 1
ENG 102 - English Composition II ..... 3
Total ..... 16
Year 2
MATH 350 - Introduction to Analysis ..... 3
MATH 321 - Elementary Linear Algebra ..... 3
Humanities (BHUM) ..... 3
Life Science (BLS). ..... 3
Lab Experience (EL) ..... 3
Total ..... 15
Year 3
MATH 400 - Development of Modern Mathematics ..... 3
EPFR 320 - Foundations of Education ..... 3
SPE 400 - The Exceptional Child ..... 3
Health Experience (EH) ..... 2
Global Cultures (EGC) ..... 3
Total ..... 15
Year 4
Cl 315b - Methods of Teaching in the Secondary School ..... 2
Cl 352 - Student Teaching ..... 10
MATH 499 - Senior Project ..... 2
Total ..... 14

\section*{Minors in Mathematics and Statistics}

The department offers minors in three areas: mathematics, statistics, and mathematics education.

\section*{Minor in Mathematics}

MATH 150 -Calculus I MATH 152 -Calculus II 9 additional hours of mathematics, statistics, or operations research courses at the 200 level or above, of which 6 hours must be at the 300 level or above and at least 3 of these 6 hours must be from mathematics

\section*{Minor in Statistics}

MATH 150 - Calculus I MATH 152-Calculus II
9 additional hours of statistics courses at the 300 level or above

\section*{Minor in Mathematics Education}

MATH 150 -Calculus I
MATH 223 - Logic and Mathematical Reasoning
MATH 310 - Teaching of Middle School Mathematics or MATH 311 - Teaching of Secondary Mathematics
9 additional hours chosen from:
MATH 300 - History of Mathematics from Antiquity to Descartes or MATH 400 - Development of Modern Mathematics;

MATH 315 - Number Theory, or MATH 320 - Introduction to
Algebraic Structures
MATH 435 - Foundations of Euclidean and Non-Euclidean Geometry
STAT 244 - Statistics CS 145 - Introduction to Computing I
For all three minors, at least six hours of courses at the 300 level or above must be taken at SIUE. Students must receive a grade of C or better in all mathematics, statistics, or operations research courses that count toward minor requirements.

Along with an appropriate licensure area and appropriate middle school education courses, the minor in mathematics education is appropriate for an endorsement for middle school mathematics. Students majoring in mathematical studies may not minor in mathematics, statistics, or mathematics education.

\section*{Graduation Requirements}

■ Complete all specific program requirements.
■ Complete all University requirements including:
- All general education requirements
- A minimum of 120 credit hours
- At least 30 of which must be completed at SIUE
- At least 60 of which must becompleted at a regionally accredited 4 -year institution
- A minimum cumulative grade point average of 2.0
- Bachelor of Arts: Eight courses in fine \& performing arts and humanities to include one year of the same foreign language
- File an Application for Graduation by the first day of the term in which you plan to graduate.

\section*{Music}

Katherine Dunham Hall, Room 2104
siue.edu/artsandsciences/music

\section*{Professors}

Archer, Kimberly K., D.M.A., 2003, University of Texas at Austin
Bell, John R., Ed.D., 1986, University of Illinois at Urbana-Champaign Coan, Darryl A., Ed.D., 1992, University of Illinois at Urbana-Champaign Haydon, Rick, M.M., 1987, Southern Illinois University Edwardsville

Hinson, James M., D.M., 1995, Florida State University Ho, Allan B., Ph.D., 1985, University of Kentucky Knapp, Joel D., D.M.A., 1991, University of Missouri at Kansas City
Korak III, John, D.M.A., 1999, University of North Texas
Mishra, Michael, D.M.A, 1997, University of Northern Colorado
Tallant, Audrey M., M.F.A., 1977, California Institute of the Arts

\section*{Associate Professors}

Anop, Lenora-Marya, D.M.A., 1993, University of Michigan-Ann Arbor
Chin, Huei Li, Ph.D., 2002, The Ohio State University
Schapman, Marc T., D.M., 2007, Indiana University
Smith, Deborah A., Ph.D., 1986, University of Michigan
Wells III, Prince A., M.M., 1986, New England Conservatory of Music

\section*{Assistant Professors}

Pineda, Kris, M.M., 2009, University of Texas at Austin
Simidtchieva, Marta D., D.M., 2005, Florida State University
Truckenbrod, Emily M., D.M.A. 1998, The University of Iowa at Iowa City
Swagler, Jason, M.M., 2000, Southern Illinois University Edwardsville

\section*{Instructors}

Minear, Carolyn
Smithiger, Daniel

\section*{Program Description}

The Department of Music at SIUE is an accredited member of the National Association of Schools of Music and offers the Bachelor of Music degree with specializations in Jazz Performance, Music Business, Music Education, Music Performance, Music Theory/Composition, and Musical Theater. The department also offers the Bachelor of Arts degree with specializations in Music and Music History and Literature.

The Music Department faculty believes students in undergraduate academic programs in music should receive a comprehensive musical background that includes cultural knowledge through the general education program, individual performance, ensemble performance, scholarly studies in music theory and history/ literature, and teacher education courses, if appropriate. The intent is to develop skilled
and informed musicians, able scholars, and competent and enthusiastic teachers.

The Bachelor of Arts degree, designed for students who wish to specialize in music within a liberal arts curriculum, may serve as the foundation for advanced studies in music. The Bachelor of Music curriculum prepares students for professional careers and advanced graduate study in music performance and music education.

Frequently scheduled concerts and recitals by guest artists, faculty, and students offer an excellent and diverse program of cultural events for the enjoyment of the University community and residents of the metropolitan area.

\section*{Career Opportunities}

A degree in music may lead to many interesting and productive careers in music and musicrelated fields. Some of the career opportunities available to graduates of the bachelor's degree programs in music include teaching in public and private schools; playing professionally in symphony orchestras, studio orchestras, and jazz groups; performing in choruses, recitals, operas, oratorios and musical theater; composing and arranging. Additional opportunities exist in music publishing, music management and sales, music criticism, music librarianship, and private studio teaching.

\section*{Degree Programs}

Bachelor of Arts, Music
Specialization available in:
Music History and Literature
Bachelor of Music
Specializations available in:
Jazz Performance
Music Business
Music Education (Standard Special
Certification K-12)
Music Performance
Music Theory and Composition
Musical Theater

\section*{Program Overview and General Department Information}

\section*{Admission}

Students seeking admission to any degree program in music must perform an acceptable audition prior to admission. Students are not permitted to register for private lessons until they complete the audition requirement. To schedule an audition, please write or call the Music Department office at (618) 650-3900.

Transfer students must take a placement test in music theory (written and aural) and class piano. Students interested in pursuing any academic program in music are advised to declare their major upon entry to the University through the Office of Academic Counseling and Advising.

\section*{Convocation Requirement}

All undergraduate music majors (B.M. or B.A.), whether declared or undeclared, are required to attend a minimum of 15 convocations/recitals/ concerts per semester for a total of 8 semesters. Three (or fewer) of these events MAY be off campus performances. The remaining 12 events may be distributed in any manner between weekly convocations and on-campus concerts/ recitals. University ensembles performing off campus will be considered as on campus events. Music department convocations are held during the fall and spring semesters on Fridays, 2:00-2:50, in either Abbott Auditorium or the Choral Room. Announcements are posted weekly throughout Dunham Hall. Attendance at convocation events is recorded from programs submitted to the music office by students. Programs in which a student is a participant will satisfy the convocation requirement. The convocation requirement for transfer students will conform to the expected number of semesters needed for graduation as determined by the music department at the time of transfer to SIUE. The convocation requirement is waived for music education majors during the semester of student teaching, and for music business majors during the semester of internship. Programs submitted for convocation credit must be received by the music office within four calendar weeks of the performance date to be counted for credit. Programs received after four weeks from the date of performance will not be accepted. If there are circumstances that prohibit fulfilling the convocation requirement for any given semester, the student may request permission to deviate from this established policy through written petition to the Convocation Committee. Petitions must be received prior to the fifth week of the semester, and will be considered only for the semester in which they are submitted. Under no circumstances should a student wait until the semester of graduation to petition the convocation committee for previous semester's requirements. Students will register for "Convocation" (MUS 100) on a Credit/No Credit option for 8 semesters. A "U" grade will be removed when the required convocations/ recitals have been completed. Students who do not fulfill the convocation requirement will be barred from graduation.

\section*{Retention}

To remain in the music program, students must maintain a minimum GPA of 2.5 and receive a grade of C or better in all required music courses. In addition, each student must continue to make satisfactory progress in private applied music and participate in appropriate ensembles as assigned by the faculty.

\section*{Transfer}

Course work completed at regionally accredited institutions will be evaluated upon admission to the University. Results of transfer credit evaluations are available to students through CougarNet. For more information about transfer, please visit siue.edu/transfer.

\section*{Degree Requirements}

\section*{Bachelor of Arts, Music}

MUS 100 MUS121a MUS 121b MUS 125a
MUS 125b MUS \(140(2,2)\) MUS 225a MUS 225b
MUS 221a MUS 221b MUS240 \((2,2)\) MUS 357a
MUS 357b

\section*{Music Literature}

Music major ensemble MUS 139a,b
Diction for Singers (required for voice students)
One year of the same foreign language

\section*{Music Specialization:}

In addition to above requirements: Minor Concentration

\section*{Music History/Literature Specialization}

In addition to above requirements:
MUS 326 MUS 442
Bachelor of Music
MUS 100 MUS 121a MUS 121b MUS 125a
MUS 125b MUS \(140(2,2)\) MUS 225a MUS 225b
MUS 221a MUS 221b MUS240 (2,2) MUS 357a
MUS 357b MUS 400
Music major ensemble

\section*{Voice Performance Majors Only}

MUS 139a,b Diction for Singers
MUS 419 or MUS 442
Students are to choose two foreign languages from Italian, French, and German.

\section*{Jazz Performance Specialization}

MUS 231/331 are substituted for MUS 221a,b and MUS \(141 / 241\) are substituted for MUS 140/240.
Also, in addition to above requirements:
\begin{tabular}{lll} 
MUS 230 (2) & MUS 330 (2,3, or 4) & MUS 337 \\
MUS 341 (4,4) & MUS 409a & MUS 409b \\
MUS430 (2,3,or4) & MUS 436 & MUS 439 \\
MUS 441(4,4) & MUS 490 &
\end{tabular}

\section*{Music Business Specialization}

In addition to above requirements:
ACCT 200 ECON 111 ECON 112 MUS 395a,b
MUS 495(12) Business electives (12)

\section*{Music Education (Standard Special Certification K-12) Specialization}

In addition to above requirements:
\begin{tabular}{llll} 
CIED 100 & Cl 352(6) & Cl 451C (6) & CI 440 \\
EPFR 315 & EPFR 320 & MUS 112 & MUS 113 \\
MUS 114 & MUS 116 & MUS 201 & MUS 301a \\
MUS 301b & MUS 301c & MUS 309a & MUS 318a \\
MUS 318b & MUS 326a & MUS 340(2,2) & MUS 411 \\
MUS 440(2) & MUS 490 & SPE 400 &
\end{tabular}

Instrumental students only: MUS 115a,b
Vocal students only: MUS 139a,b

\section*{Music Performance Specialization}

In addition to above requirements:
\begin{tabular}{llll} 
MUS 309 & MUS 318a & MUS 326 & MUS 411 \\
MUS 340(4,4) & MUS 440(4,4) & MUS 442 & MUS 461a \\
MUS 490 & &
\end{tabular}

Applied lessons in the freshman and sophomore years may be taken for either 2 or 4 credit hours. Students who enroll in only credit hours must take additional music electives if their total hours are below 120.

Piano students only: MUS 165a,b substituted for MUS 121a,b; MUS 221a,b waived; MUS 413a,b; MUS 461a,b
Voice Students only: Two Foreign Languages Required - 1 year of French, German, or Italian and 1 year of a different language (i.e. First Language 101/102; Second Language 101/102; MUS 139a/b; MUS 419; Waived: MUS 309a, MUS 442

\section*{Music Theory \& Composition Specialization}

In addition to above requirements:
\begin{tabular}{llll} 
MUS 212a & MUS 212b & MUS 227 & MUS 309 \\
MUS 326 & MUS 411g & MUS 426a & MUS 442 \\
MUS 472 & & &
\end{tabular}

Anthropology 302 - World Music
Theory emphasis only: one year of two different languages;
MUS 326, 481
Composition emphasis only: MUS 115a, 112, 113 or 116 (nonvoice students); MUS 114, 165a, 312a, 312b, 318a, 412a, 412b
Foreign Language 101 and 102

\section*{Musical Theater Specialization}
\begin{tabular}{llll} 
DANC 114 & DANC 210a & DANC 211a & DANC 212a \\
DANC 213 & MUS 139a & MUS 139b & MUS 342 (3) \\
MUS 411 & MUS 444 (4) & MUS 460a & MUS 460b \\
THEA 112a & THEA 112b & THEA 150 or THEA 160 \\
THEA 201b & THEA 210a & Private Applied Voice (16)
\end{tabular}

\section*{General Education Requirements for the Major \\ General Education Requirements \\ 44 \\ Some General Education requirements may be satisfied while completing this major concentration.}
Sample Curriculum for the Bachelor of Arts - Music
Fall Semester Spring Semester
Year 1
MUS 121A - Class Piano (or Proficiency) ..... 1
MUS 125A - Theory (BFPA) ..... 4
MUS 139A - Diction (Voice Students only) or Music Elective (Non-Voice Students) ..... 2
MUS 140 - Applied Lessons ..... 2
MUS Major Ensemble ..... 1
ENG 101 -Composition ..... 3
MUS 100-Convocation ..... 0
ACS 101 or 103-Oral Expression ..... 3
Total ..... 16
Year 2
MUS 221A - Class Piano (or Proficiency) ..... 1
MUS 225A - Theory (BFPA) ..... 4
MUS 240 - Applied Lessons ..... 2
MUS Major Ensemble ..... 1
RA 101 - Reasoning \& Argumentation ..... 3
Physical Science (BPS) ..... 3
Minor. ..... 3
MUS 100 ..... 0
Total ..... 17
Year 3
MUS 357A - Music History ..... 3
Foreign Language 101 (BICS) ..... 4
Elective ..... 3
Elective Music Literature ..... 2
Minor. ..... 3
MUS 100 ..... 0
Total ..... 15
Year 4
Humanities (BHUM) ..... 3
Interdisciplinary Studies (IS) ..... 3
Lab Experience (EL) ..... 3
Minor. ..... 3
Total ..... 12
Year 1
MUS 121B - Class Piano (or Proficiency) ..... 1
MUS 125B - Theory (BFPA) ..... 4
MUS 139B - Diction (Voice Major only) or Music Elective (Non-Voice Students) ..... 2
MUS 140 - Applied Lessons ..... 2
MUS Major Ensemble ..... 1
ENG 102 -Composition ..... 3
Life Science (BLS) ..... 3
MUS 100 ..... 
Total ..... 16
Year 2
MUS 221B - Class Piano (or Proficiency) ..... 1
MUS 225B - Theory (BFPA) ..... 4
MUS 240 - Applied Lessons ..... 2
MUS Major Ensemble ..... 1
QR 101, MATH 150 or Higher ..... 3
Health Experience (EH) ..... 3
Elective ..... 2
MUS 100 .....  0
Total ..... 16
Year 3
MUS 357B - Music History ..... 3
Foreign Language 102 (EGC) ..... 4
United States Cultures (EUSC)/Social Science (BSS) ..... 3
Elective Music Literature ..... 2
Minor. ..... 3
MUS 100 ..... 0
Total ..... 15
Year 4
Minor. ..... 3
Minor. ..... 3
Music Elective ..... 3
Elective ..... 4
MUS 100 ..... 0
MUS 400- Senior Assignment ..... 0
Total ..... 13
Sample Curriculum for the Bachelor of Arts - Music History/Literature

\author{
Fall Semester
}
Year 1
MUS 121A - Class Piano (or Proficiency) ..... 1
MUS 125A - Theory (BFPA) ..... 4
MUS 139A - Diction (Voice Students only) or MUS Elective (Non-voice Students) ..... 2
MUS 140 - Applied Lessons ..... 2
MUS Major Ensemble ..... 1
ENG 101 - Composition ..... 3
ACS 101 or 103-Oral Expression ..... 3
MUS 100-Convocation .....  0
Total ..... 16
Spring Semester
Year 1
MUS 121B - Class Piano (or Proficiency) ..... 1
MUS 125B - Theory (BFPA) ..... 4
MUS 139B - Diction (Voice Major Only) or MUS Elective (Non-voice Students) ..... 2
MUS 140 - Applied Lessons .....  2
MUS Major Ensemble ..... 1
ENG 102-Composition ..... 3
Life Science (BLS). ..... 3
MUS 100. ..... 
Total ..... 16
Sample Curriculum for the Bachelor of Arts - Music History/Literature cont.

\author{
Fall Semester
}
Year 2
MUS 221A - Class Piano (or Proficiency) ..... 1
MUS 225A - Theory (BFPA) ..... 4
MUS 240 - Applied Lessons ..... 2
MUS Major Ensemble ..... 1
MUS Elective. ..... 1
RA 101 - Reasoning \& Argumentation ..... 3
Physical Science (BPS) ..... 3
MUS 100 ..... 0
Total ..... 15
Year 3
MUS 326-Analysis ..... 3
MUS 357A - Music History ..... 3
Foreign Language 101 (BICS) ..... 4
United States Culture (EUSC)/Social Science (BSS). ..... 3
Elective Music Literature ..... 2
MUS 100 .....  0
Total ..... 15
Year 4
MUS 442 - Counterpoint (BFPA) ..... 3
Interdisciplinary Studies (IS) ..... 3
Humanities (BHUM) ..... 3
Elective Music Literature .....  2
Elective. .....  2
MUS 100 ..... 0
Total ..... 13
Spring Semester
Year 2
MUS 221B - Class Piano (or Proficiency) ..... 1
MUS 225B - Theory (BFPA) ..... 4
MUS 240 - Applied Lessons ..... 2
MUS Major Ensemble ..... 1
QR 101, MATH 150 or Higher ..... 3
Health Experience (EH) ..... 3
Lab Experience (EL) ..... 3
MUS 100. .....  0
Total ..... 17
Year 3
MUS 357B - Music History ..... 3
Foreign Language 102 (EGC) ..... 4
Information \& Communication in Society (BICS) ..... 3
Elective Music Literature .....  2
Elective. ..... 3
MUS 100 .....  0
Total ..... 15
Year 4
Elective Music Literature ..... 2
Elective. .....  3
Elective ..... 3
Elective . ..... 3
Elective. ..... 2
MUS 100 ..... 0
MUS 400 - Senior Assignment. ..... 0
Total ..... 13
Sample Curriculum for the Bachelor of Music - Music Business
Fall Semester
Year 1
MUS 121A - Class Piano (or Proficiency) ..... 1
MUS 125A - Theory (BFPA) ..... 4
MUS 139A - Diction (Voice Students Only) or MUS Elective (Non-Voice Students) ..... 2
MUS 140 - Applied Lessons ..... 2
MUS Major Ensemble ..... 1
ENG 101 - Composition ..... 3
MUS 100-Convocation ..... 0
ACS 101 or 103-Oral Expression ..... 3
Total ..... 16
Year 2
MUS 221A - Class Piano (or Proficiency) ..... 1
MUS 225A - Theory (BFPA) ..... 4
MUS 240 - Applied Lessons .....  2
MUS Major Ensemble ..... 1
ECON 112 - Microeconomics (BSS). ..... 3
RA 101 - Reasoning \& Argumentation ..... 3
Life Science (BLS). ..... 3
MUS 100 ..... 0
Total ..... 17
Spring Semester
Year 1
MUS 121B - Class Piano (or Proficiency) ..... 1
MUS 125B - Theory (BFPA) ..... 4
MUS 139B - Diction (Voice Students Only) or MUS Elective (Non-Voice Students) .....  2
MUS 140 - Applied Lessons .....  2
MUS Major Ensemble ..... 1
ECON 111 - Macroeconomics (BSS) ..... 3
ENG 102 -Composition ..... 3
MUS 100** ..... 
Total ..... 16
Year 2
MUS 221B - Class Piano (or Proficiency) ..... 1
MUS 225B - Theory (BFPA) ..... 4
MUS 240 - Applied Lessons .....  2
MUS Major Ensemble ..... 1
ACCT 200 - Financial Accounting ..... 3
Physical Science (BPS)/Lab Experience (EL) ..... 3
QR 101, MATH 150 or Higher ..... 3
MUS 100. ..... 0
Total ..... 17
Sample Curriculum for the Bachelor of Music - Music Business cont.
Fall Semester
Year 3
MUS 357A - History of Western Music ..... 3
MUS 395A - Music Business (BFPA) ..... 3
Business Elective ..... 3
Foreign Language 101 (BICS) ..... 4
Interdisciplinary Studies (IS) ..... 3
MUS 100 ..... 0
Total ..... 16
Year 4
MUS Elective. .....  5
Business Elective ..... 3
Business Elective ..... 3
Health Experience (EH) ..... 2
Humanities (BHUM)/United States Culture (EUSC) .....  3
MUS 100 ..... 0
Total ..... 16
Spring Semester
Year 3
MUS 357B - History of Western Music ..... 3
MUS 395B - Music Business (BFPA) ..... 3
Foreign Language 102 (EGC) ..... 4
Business Elective ..... 3
MUS 100 ..... 0
Total ..... 13
Year 4
MUS 495 - Internship ..... 12
MUS 400- Senior Assignment ..... 0
Total ..... 12
Sample Curriculum for the Bachelor of Music - Performance (Instrumental)
Fall Semester
Year 1
MUS 121A - Class Piano (or Proficiency) ..... 1
MUS 125A - Theory (BFPA) ..... 4
MUS 140 - Applied Lessons ..... 2 or 4
MUS Major Ensemble ..... 1
ENG 101 -Composition ..... 3
ACS 101 or 103-Oral Expression ..... 3
MUS 100-Convocation .....  0
Total ..... 14 or 16
Year 2
MUS 221A - Class Piano (or Proficiency) ..... 1
MUS 225A - Theory (BFPA) ..... 4
MUS 240 - Applied Lessons ..... 2 or 4
MUS Major Ensemble ..... 1
Foreign Language 101 (BICS) ..... 4
MUS 100 ..... 0
Total ..... 12 or 14
Year 3
MUS 309 - Orchestration (BFPA) ..... 3
MUS 318A - Conducting ..... 2
MUS 340 - Applied Lessons ..... 4
MUS 357A - Music History (BHUM) ..... 3
MUS Major Ensemble ..... 1
Physical Science (BPS) ..... 3
MUS 100 ..... 0
Total ..... 16
Year 4
MUS 326 - Analysis ..... 3
MUS 411 - Music Literature ..... 2
MUS 440 - Applied Lessons ..... 4
MUS 442 - Counterpoint ..... 3
MUS Major Ensemble ..... 1
MUS 100 ..... 0
Total ..... 13
Spring Semester
Year 1
MUS 121B - Class Piano (or Proficiency) ..... 1
MUS 125B - Theory (BFPA) ..... 4
MUS 140 - Applied Lessons ..... 2 or 4
MUS Major Ensemble ..... 1
ENG 102 -Composition ..... 3
RA 101 - Reasoning \& Argumentation ..... 3
MUS 100 .....  0
Total ..... 14 or 16
Year 2
MUS 221B - Class Piano (or Proficiency) ..... 1
MUS 225B - Theory (BFPA) ..... 4
MUS 240 - Applied Lessons ..... 2 or 4
MUS Major Ensemble ..... 1
Foreign Language 102 (EGC) ..... 4
QR 101, MATH 150 or Higher ..... 3
MUS 100. ..... 0
Total ..... 15 or 17
Year 3
MUS 340 - Applied Lessons ..... 4
MUS 357B - Music History ..... 3
MUS Major Ensemble ..... 1
Social Science (BSS)/United States Culture (EUSC) ..... 3
Lab Experience (EL) ..... 3
Health Experience (EH) ..... 2
MUS 100 ..... 0
Junior Recital - During 3rd Year Total ..... 16
Year 4
MUS 440 - Applied Lessons ..... 4
MUS Major Ensemble ..... 1
MUS 461A- Piano Teaching Techniques \& Materials ..... 3
Interdisciplinary Studies (IS) ..... 3
Life Science (BLS) ..... 3
MUS 100 ..... 0
MUS 400 - Senior Assignment. ..... 0
MUS 490 - Senior Recital - During 4th Year ..... 0
Total ..... 14
Sample Curriculum for the Bachelor of Music - Performance (Piano)
Fall Semester
Year 1
MUS 125A - Theory (BFPA) ..... 4
MUS 140 - Applied Lessons ..... 2 or 4
MUS 165A - Piano Practicum ..... 1
MUS Major Ensemble ..... 1
ENG 101 -Composition ..... 3
ACS 101 or 103-Oral Expression ..... 3
MUS 100-Convocation. .....  0
Total ..... 14 or 16
Year 2
MUS 225A - Theory (BFPA) ..... 4
MUS 240 - Applied Lessons ..... 2 or 4
MUS 365 -Piano Ensemble ..... 1
Foreign Language 101 (BICS) ..... 4
Life Science (BLS) with a lab (EL) ..... 3
QR 101, MATH 150 or Higher ..... 3
MUS 100 ..... 0
Total ..... 17 or 19
Year 3
MUS 318A - Conducting ..... 3
MUS 340 - Applied Lessons ..... 4
MUS 357A - Music History (BHUM) ..... 3
MUS 365 - Piano Ensemble ..... 1
MUS 461A - Piano Teaching Techniques ..... 3
MUS 309-Orchestration ..... 3
MUS 100 ..... 0
Total ..... 17
Year 4
MUS 326 - Music Analysis ..... 3
MUS 365 - Piano Ensemble ..... 0
MUS 413A - Piano Literature ..... 2
MUS 440 - Applied Lessons ..... 4
Health Experience (EH) ..... 1
Interdisciplinary Studies (IS) ..... 3
MUS 100. .....  0
Total ..... 13

Spring Semester

\section*{Year 1}
MUS 125B - Theory (BFPA) ..... 4
MUS 140 - Applied Lessons ..... 2 or 4
MUS 165B - Piano Practicum ..... 1
MUS Major Ensemble ..... 1
ENG 102 - Composition ..... 3
3
MUS 100 ..... 0
Total ..... 14 or 16
Year 2
MUS 225B - Theory (BFPA) ..... 4
MUS 240 - Applied Lessons ..... 2 or 4
MUS 365 - Piano Ensemble .....  1
Foreign Language 102 (EGC) ..... 4
Physical Science (BPS) ..... 3
MUS 100 ..... 0
Total ..... 14 or 16
Year 3
MUS 340 - Applied Lessons ..... 4
MUS 357B - Music History ..... 3
MUS 365 - Piano Ensemble ..... 1
MUS 461B - Piano Teaching Techniques ..... 3
MUS 411 - Music Literature ..... 3
Social Science (BSS)/United States Culture (EUSC) ..... 3
MUS 100. .....  0
Junior Recital - During 3rd Year Total ..... 17
Year 4
MUS 365 -Piano Ensemble ..... 3
MUS 413B - Piano Literature ..... 2
MUS 440 - Applied Lessons ..... 4
MUS 442 - Counterpoint. ..... 3
MUS 100 ..... 0
MUS 400 - Senior Assignment. .....  0
MUS 490 - Senior Recital - During 4th Year .....  0
Total ..... 12
Sample Curriculum for the Bachelor of Music - Performance (Voice)
Fall Semester
Year 1
MUS 121A - Class Piano (or Proficiency) ..... 1
MUS 125A - Theory (BFPA) ..... 4
MUS 139A - Diction .....  2
MUS 140 - Applied Lessons ..... 2 or 4
MUS Major Ensemble ..... 1
ENG 101 - Composition ..... 3
ACS 101 or 103-Oral Expression ..... 3
MUS 100-Convocation. .....  0
Total 16 or 18
Spring Semester
Year 1
MUS 121B - Class Piano (or Proficiency) ..... 1
MUS 125B - Theory (BFPA) ..... 4
MUS 139B - Diction .....  2
MUS 140 - Applied Lessons ..... 2 or 4
MUS Major Ensemble ..... 1
ENG 102 -Composition ..... 3
Physical Science (BPS) ..... 3
MUS 100 ..... 0
Total ..... 16 or 18
Sample Curriculum for the Bachelor of Music - Performance (Voice) cont.Fall Semester
Year 2
MUS 221A - Class Piano (or Proficiency) ..... 1
MUS 225A - Theory (BFPA) ..... 4
MUS 240 - Applied Lessons ..... 2 or 4
MUS Major Ensemble ..... 1
*Foreign Language 101 (BICS) ..... 4
RA 101 - Reasoning \& Argumentation ..... 3
MUS 100 ..... 0
Total ..... 15 or 17
Year 3
MUS 318A - Conducting ..... 2
MUS 340 - Applied Lessons ..... 4
MUS 357A - Music History (BHUM) ..... 3
MUS Major Ensemble ..... 1
*Foreign Language (second FL) 101 ..... 4
MUS 100 ..... 0
Total ..... 14
Year 4
MUS 326 - Analysis (BFPA) ..... 3
MUS 440 - Applied Lessons ..... 4
MUS Major Ensemble ..... 1
Health Experience (EH) ..... 2
Interdisciplinary Studies (IS) ..... 3
MUS 100 .....  0
Total ..... 13
Spring Semester

\section*{Year 2}
MUS 221B - Class Piano (or Proficiency) ..... 1
MUS 225B - Theory (BFPA) ..... 4
MUS 240 - Applied Lessons ..... 2 or 4
MUS Major Ensemble ..... 1
Foreign Language 102 (EGC) ..... 4
QR 101, MATH 150 or Higher ..... 3
MUS 100 .....  0
Total ..... 15 or 17
Year 3
MUS 340 - Applied Lessons ..... 4
MUS 357B - Music History .....  3
MUS Major Ensemble ..... 1
Foreign Language (second FL) 102 (EGC) ..... 4
Life Science (BLS)/Lab Experience (EL) ..... 3
Social Science (BSS) ..... 3
MUS 100 ..... 0
Junior Recital - During 3rd Year Total ..... 18
Year 4
MUS 440 - Applied Lessons ..... 4
MUS 419 - Vocal Pedagogy (BFPA) .....  2
MUS Major- Voice Ensemble. ..... 1
MUS 411 - Music Literature ..... 2
MUS 461A - Piano Teaching Techniques \& Materials ..... 3
MUS 100 .....  0
MUS 400 - Senior Assignment ..... 0
Humanities (BHUM)/United States Cultures (EUSC) ..... 3
MUS 490 - Senior Recital - During 4th Year .....  0
Total ..... 15
* Students are to choose two foreign languages from Italian, French, and German.
Sample Curriculum for the Bachelor of Music - Jazz Performance
Fall Semester
Year 1
MUS 121A - Class Piano (or Proficiency) ..... 1
MUS 125A - Theory (BFPA) ..... 4
MUS 141 - Applied Lessons ..... 2 or 4
MUS 230 - Improvisation ..... 1
MUS 333-Jazz Combo .....  1
ENG 101 -Composition ..... 3
ACS 103 - Interpersonal Communication (EUSC) ..... 3
MUS 100 - Convocation ..... 0
Total ..... 15 or 17
Year 2
MUS 225A - Theory (BFPA) ..... 4
MUS 231 - Jazz Keyboard Theory .....  2
MUS 241 - Applied Lessons ..... 2 or 4
MUS 330 - Improvisation (BFPA) ..... 1
MUS 333 - Jazz Combo ..... 1
MUS 439-Recording Techniques ..... 2
QR 101, MATH 150 or Higher ..... 3
MUS 100 ..... 0
Total 15 or 17
Spring Semester
Year 1
MUS 121B - Class Piano (or Proficiency) ..... 1
MUS 125B - Theory (BFPA) ..... 4
MUS 141 - Applied Lessons ..... 2 or 4
MUS 230 - Improvisation ..... 1
MUS 333-Jazz Combo ..... 1
ENG 102 -Composition ..... 3
RA 101 - Reasoning \& Argumentation ..... 3
MUS 100 Convocation. .....  0
Total ..... 15 or 17
Year 2
MUS 225B - Theory (BFPA) ..... 4
MUS 241 - Applied Lessons ..... 2 or 4
MUS 330 - Improvisation (BFPA) ..... 1
MUS 331 - Jazz Keyboard Theory (BFPA) .....  2
MUS 333 - Jazz Combo ..... 1
Social Science (BSS) ..... 3
Humanities (BHUM) ..... 3
MUS 100 ..... 0
Total ..... 16 or 18
Sample Curriculum for the Bachelor of Music - Jazz Performance cont.
Fall Semester
Year 3
MUS 333-Jazz Combo ..... 1
MUS 337 - Analysis of Jazz Styles ..... 3
MUS 341 - Applied Lessons ..... 4
MUS 409A - Jazz Arranging .....  2
MUS 430 - Improvisation .....  1
Foreign Language 101 ..... 4
MUS 100 .....  0
MUS 333 Jazz Combo ..... 1
MUS 409B - Jazz Arranging ..... 2
MUS 430 - Improvisation... ..... 4
.
MUS 100. .....  0
Total ..... 15
Year 4
MUS 333- Jazz Combo ..... 1
MUS 357A - Music History ..... 3
MUS 430 - Improvisation ..... 1
MUS 441 - Applied Lessons ..... 4
Physical Science (BPS) ..... 3
Lab Experience (EL) ..... 3
MUS 100. ..... 0
Total ..... 15

Spring Semester

\section*{Year 3}
Junior Recital - During 3rd Year Total ..... 15
Year 4
MUS 333- Jazz Combo ..... 1
MUS 357B - Music History ..... 3
MUS 430 - Improvisation ..... 1
MUS 436 - Jazz Education .....  2
MUS 441 - Applied Lessons ..... 4
Interdisciplinary Studies (IS) ..... 3
MUS 100. ..... 
MUS 400 - Senior Assignment ..... 0
MUS 490 - Senior Recital - During 4th Year ..... 0
Total ..... 14 or 17
Sample Curriculum for the Bachelor of Music - Music Education
Fall Semester
Year 1
MUS 115A - Class Voice or MUS 139A - Diction for Singers . ..... 1
MUS 201 - Music Education Intro ..... 1 ..... 1
MUS 121A - Class Piano (or Proficiency) or MUS 165A Piano Practicum (Keyboard Students Only) ..... 1
MUS 125A - Theory (BFPA) ..... 4
MUS 140 - Applied Lessons ..... 2
MUS Major Ensemble ..... 1
MUS 113 - Class Applied Brass or MUS 114 - Class Applied Percussion. ..... 1
ENG 101 - English Composition I ..... 1
English Composition I ..... 3
ACS 101 or 103-Oral Expression ..... 3
MUS 100-Convocation ..... 0
Total ..... 17
Year 2
MUS 113 - Class Applied Brass or MUS 114 - Class Applied Percussion ..... 1
MUS 221A - Class Applied Piano (or Proficiency; waived for Keyboard Students Only) ..... 1
MUS 225A - Theory (BFPA) ..... 4
MUS 240 - Applied Lessons ..... 2
MUS Major Ensemble ..... 1
CIED 100 - Introduction to Education ..... 3
Foreign Language 101 ..... 4
HIST 200 or HIST 201 - US History (BSS/EL/EUSC) ..... 3
MUS 100. ..... 
Total ..... 19
Spring Semester
Year 1
MUS 115B - Class Voice or MUS 139B - Diction for Singers . . . . 1 MUS 112 -Woodwind Methods or MUS 116 - Class Applied Strings ..... 1
MUS 121B - Class Piano (or Proficiency) or MUS 165B Piano Practicum (Keyboard Students Only) ..... 1
MUS 125B - Theory (BFPA) ..... 4
MUS 140 - Applied Lessons ..... 2
MUS Major Ensemble ..... 1
ENG 102 - English Composition II. ..... 3
RA 101 - Reasoning \& Argumentation ..... 3
Breadth Physical Science (BPS) ..... 3
MUS 100 ..... 0
Total ..... 19
Year 2
MUS 112 - Class Applied Woodwinds or MUS 116-Class Applied Strings ..... 1
MUS 221B - Class Piano (or Proficiency; waived for Keyboard Students Only) ..... 1
MUS 225B - Theory (BFPA) ..... 4
MUS 240 - Applied Lessons .....  2
MUS Major Ensemble ..... 1
Health Experience ..... 1
Foreign Language 102 (BICS/EGC) ..... 4
QR 101, MATH 150 or Higher ..... 3
MUS 100 ..... 
Total ..... 17

\section*{Sample Curriculum for the Bachelor of Music - Music Education cont.}Fall Semester
Year 3
MUS 301A - Education Methods : Elementary ..... 2
MUS 309A - Orchestration (BFPA) ..... 3
MUS 318A - Conducting ..... 2
MUS 340 - Applied Lessons ..... 2
MUS 357A - Music History (BHUM) ..... 3
MUS Major Ensemble ..... 1
SPE 400 - The Exceptional Child ..... 3
EPFR 315 - Educational Psychology ..... 3
MUS 100 ..... 0
Total ..... 19
Year 4
MUS 301C - Education Methods: Secondary Instrumental ..... 2
MUS 326A - Analysis ..... 3
MUS 411 - Music Literature ..... 2
MUS 440 - Applied Lessons .....  2
MUS Major Ensemble ..... 1
Breadth Humanities (BHUM) ..... 3
Interdisciplinary Studies (IS) ..... 3
MUS 100. ..... 0
Total ..... 16
Complete ICTS Music Content Test Before Start of Spring SemesterSpring Semester
Year 3
MUS 301B - Education Methods: Secondary Vocal/General. .....  2
MUS 318B - Conducting .....  2
MUS 340 - Applied Lessons ..... 2
MUS 357B - Music History ..... 3
MUS Major Ensemble ..... 1
EPFR 320 - Foundations of Ed in a Multicultural Society ..... 3
Breadth Life Science (BLS) ..... 3
Cl 440 - Adolescent Literacy ..... 3
MUS 100. ..... 0
Total ..... 19
Prepare Recital to Be Presented Prior to Student Teaching
Year 4
Cl 352 - Student Teaching ..... 6
Cl 451C - Elementary Student Teaching: Music ..... 6
MUS 400E - Senior Assignment ..... 0
Total ..... 12
Complete ICTS-ATP Test Before End of Semester
Sample Curriculum for the Bachelor of Music - Music Theory and Composition (Theory Emphasis)
Year 1
MUS 121A - Class Piano (or Proficiency) ..... 1
MUS 125A - Theory (BFPA) ..... 
MUS 139A - Diction (Voice Students Only) ..... (2)
MUS 140 - Applied Lessons ..... 2
MUS Major Ensemble ..... 1
ENG 101 - Composition ..... 3
ACS 101 or 103-Oral Expression ..... 3
MUS 100 -Convocation .....  0
Total ..... 14 or 16
Year 2
MUS 221A - Class Piano (or Proficiency) ..... 1
MUS 225A - Theory (BFPA) ..... 4
MUS 240 - Applied Lessons ..... 2
MUS Major Ensemble ..... 1
RA 101 - Reasoning \& Argumentation ..... 3
Life Science (BLS) with a lab (EL) ..... 4
MUS 100 ..... 0
Total ..... 15
Year 3
MUS 165A - Piano Practicum .....  1
MUS 212A - Applied Composition. .....  2
MUS 309 - Orchestration (BFPA) ..... 3
MUS 357A - Music History (BHUM) ..... 3
MUS Major Ensemble ..... 1
*Foreign Language 101 (BICS) ..... 
Health Experience (EH) ..... 3
MUS 100 .....  0
Total ..... 17
Spring Semester
Year 1
MUS 121B - Class Piano (or Proficiency) ..... 1
MUS 125B - Theory (BFPA) ..... 4
MUS 139B - Diction (Voice Students Only) ..... (2)
MUS 140 - Applied Lessons ..... 2
MUS Major Ensemble ..... 1
ENG 102 - Composition ..... 3
QR 101, MATH 150 or Higher ..... 3
MUS 100. ..... 0
Total ..... 14 or 16
Year 2
MUS 221B - Class Piano (or Proficiency) ..... 1
MUS 225B - Theory (BFPA) ..... 4
MUS 227 - Intro to Composition .....  2
MUS 240 - Applied Lessons .....  2
MUS Major Ensemble .....  1
Physical Science (BPS) ..... 3
ANTH 302 - World Music ..... 3
MUS 100 ..... 0
Total ..... 16
Year 3
MUS 212B - Applied Composition. ..... 2
MUS 357B - Music History ..... 3
MUS 426A - Adv Music Theory: Music Since 1900 ..... 2
MUS 472 - Arranging ..... 3
MUS Major Ensemble ..... 1
*Foreign Language 102 (same language as in Fall; EGC) ..... 4
MUS 100 ..... 0
Total ..... 15

\section*{Sample Curriculum for the Bachelor of Music - Music Theory and Composition (Theory Emphasis) cont.}
Fall Semester
Year 4
MUS 326 - Analysis ..... 3
MUS 411G - Music Lit.: 20th Century ..... 2
MUS 481 -Readings in Music Theory ..... 3
*Foreign Language 101 (second language) ..... 4
MUS Major Ensemble ..... 1
Humanities (BHUM)/United States Cultures (EUSC) ..... 3
MUS 100. ..... 0
Total ..... 16
Spring Semester
Year 4
MUS 481 ..... 3
MUS 442 - Counterpoint ..... 3
*Foreign Language 102 (same language as in Fall) ..... 4
Interdisciplinary Studies (IS)(2)
Elective (Non-Voice Students Only) ..... (2)
MUS 100. .....  0
MUS 400 - Senior Assignment .....  0
Total ..... 13-15
* Foreign Language in year two and three, must be French, German, Italian, or Latin
Sample Curriculum for the BM - Music Theory and Composition (Composition Emphasis)

\author{
Fall Semester
}
Year 1
MUS 121A - Class Piano (or Proficiency) ..... 1
MUS 125A - Theory (BFPA) ..... 4
MUS 139A - Diction (Voice Students Only) ..... (2)
MUS 115a, 112, 113 or 116 (Non-Voice Students). ..... (1)
MUS 140 - Applied Lessons ..... 2
MUS Major Ensemble ..... 1
ENG 101 - Composition ..... 3
ACS 101or 103-Oral Expression ..... 3
MUS 100 - Convocation .....  0
Total ..... 15 or 16
Year 2
MUS 212A - Applied Composition. ..... 2
MUS 221A - Class Piano (or Proficiency) ..... 1
MUS 225A - Theory (BFPA) ..... 4
MUS 240 - Secondary Applied Lessons .....  2
MUS Major Ensemble ..... 1
RA 101 - Reasoning \& Argumentation ..... 3
Physical Science (BPS) ..... 3
MUS 100. .....  0
Total ..... 16
Year 3
MUS 165A - Piano Practicum ..... 1
MUS 309 - Orchestration (BFPA) ..... 3
MUS 312A - Applied Composition. .....  2
MUS 357A - Music History (BHUM) ..... 3
MUS Major Ensemble ..... 1
Foreign Language 101 (French, German, Italian or Latin) ..... 4
Health Experience (EH) .....  2
MUS 100 .....  0
Total ..... 16
Year 4
MUS 318A - Conducting .....  2
MUS 326 - Analysis .....  3
MUS 411G - Music Lit.: 20th Century ..... 2
MUS 412A - Applied Composition. ..... 4
Interdisciplinary Studies (IS) ..... 3
MUS 100. .....  0
Total ..... 14
Spring Semester
Year 1
MUS 121B - Class Piano (or Proficiency) ..... 1
MUS 125B - Theory (BFPA) ..... 4
MUS 140 - Applied Lessons ..... 2
MUS 227 - Intro to Composition .....  2
MUS Major Ensemble ..... 1
ENG 102 -Composition ..... 3
QR 101, MATH 150 or Higher ..... 3
MUS 100. ..... 
Total ..... 16
Year 2
MUS 114 -Class Percussion ..... 1
MUS 212B - Applied Composition. ..... 2
MUS 221B - Class Piano (or Proficiency) ..... 1
MUS 225B - Theory (BFPA) ..... 4
MUS 240 - Secondary Applied Lessons .....  2
MUS Major Ensemble ..... 1
Life Science (BLS) with a lab (EL) ..... 3
MUS 100. ..... 0
Total ..... 14
Year 3
MUS 312B - Applied Composition. .....  2
MUS 357B - Music History ..... 3
MUS 442 - Counterpoint. ..... 3
MUS 472 - Arranging ..... 3
MUS Major Ensemble ..... 1
Foreign Language 102 (same language as in Fall; EGC) ..... 4
MUS 100 .....  0
Total ..... 16
Year 4
MUS 412B - Applied Composition. ..... 4
MUS 426A - Adv Music Theory: Music Since 1900 ..... 2
ANTH 302 - World Music . ..... 3
Humanities (BHUM)/United States Cultures (EUSC) ..... 3
Elective (Non-Voice Students Only) ..... (1)
MUS 100. ..... 0
MUS 400 - Senior Assignment (Recital)
Total ..... 12-13

\section*{Minor in Music}

Students wishing to minor in music must consult with the designated advisor to develop an approved program before beginning coursework. Students must complete a total of at least 24 hours in music which must include:

MUS 124 or 125a
MUS 121a or 231
MUS 111
One upper level music history/literature course
Students seeking minors in music are required to build a concentration of 8 hours in one particular area of music. The following areas of concentration are available: performance, theory, history/literature, jazz, music education, and music business. Certain activities such as private applied study, advanced level courses, and some ensembles require an audition and/or prior approval of the instructor.

\section*{Graduation Requirements}
- Complete all specific program requirements.

■ Complete all University requirements including:
- All general education requirements
- A minimum of 120 credit hours
- At least 30 of which must be completed at SIUE
- At least 60 of which must becompleted at a regionally accredited 4 -year institution
- A minimum cumulative grade point average of 2.0
- Bachelor of Arts only: one year of the same foreign language
- File an Application for Graduation by the first day of the term in which you plan to graduate.

\section*{Philosophy}

Peck Hall, Room 3212
siue.edu/artsandsciences/philosophy

\section*{Professors}

Cataldi, Suzanne L., Ph.D., 1991, Rutgers, the State University of New Jersey
Crane, Judith K., (Chair) Ph.D., 1999, Tulane University
Fields, Gregory P., Ph.D., 1994, University of Hawai'i
Ware, Robert B., D.Phil., 1995, Oxford University

\section*{Associate Professors}

Cashen, Matthew C., Ph.D., 2007, Washington University
Larkin, William S.,Ph.D., 1998, University of California Santa Barbara
Lueck, Bryan L., Ph.D., 2007, The Pennsylvania State University
Littmann, Greg, Ph.D., 2004, University of North Carolina at Chapel Hill
Pearson, Christopher H., Ph.D., 2007, University of Washington

\section*{Assistant Professors}

Fatima, Saba, Ph.D., 2012, Binghamton University
Fry, Richard J., Ph.D., 2013, Georgetown University
Krag, Erik R., Ph.D., 2012, University of Tennessee
Reiheld, Alison, Ph.D., 2010, Michigan State University
Schunke, Matthew, Ph.D., 2009, Rice University

\section*{Instructors}

Darr, Raymond C., M.A., 1984, Southern Illinois University Edwardsville
Meade, Erik J., M.A., 2001, Southern Illinois University Carbondale
Schallert, Edward W., M.A., 1990, Southern Illinois University Edwardsville

\section*{Program Description}

Philosophy is the attempt to think carefully, clearly, and critically about questions not readily addressable through the natural and social sciences. Philosophers consider a variety of complex questions, including:
- What makes human life valuable and worthy of respect?
- Are moral values objective or subjective?
- What are persons, minds, and bodies, and how are they related?
■ Is there a God? If so, what is God's relationship to the world?
■ What are the limits of power that a society can exercise legitimately over the individual?
- How can one decide whether a work of art is beautiful?

■ Do human beings have free will?
- What are the limits of human knowledge?

These pursuits involve inquiring into the reasons for beliefs about these issues. Thus, philosophers
are especially interested in reasoning and the justification for our beliefs and attitudes.

\section*{Career Opportunities}

A strong liberal arts background provides an excellent foundation from which to launch exciting careers. In today's competitive environment, there is a premium for individuals with the critical skills of reading, writing, and independent thinking. These are the bases for lifelong learning and the skills that philosophy emphasizes. The study of philosophy also enriches one's perspectives by introducing one to very different ways of looking at, and thinking about, the world and how people live in it.
In addition to opening the door to the pursuit of a graduate degree in philosophy, a major in Philosophy is highly desirable in any career that puts a premium on analytical skills and independent thinking, including law, medicine, business, politics, mediation, journalism, editing, and public relations. Moreover, because of the relatively modest number of hours required for a Philosophy major, many students find it convenient to plan a double major, uniting philosophy with other academic fields. Since philosophy engages many of the assumptions and questions that pertain to other areas of study, a major in Philosophy can deepen and broaden one's understanding of another major. A Minor in Philosophy is especially appropriate for those who plan to enter the professions of computer science, teaching, medicine, journalism, business, science, or social science, as well as law or theology.

\section*{Degree Programs:}

Bachelor of Arts, Philosophy
Bachelor of Science, Philosophy Program

\section*{Program Overview}

\section*{Admission}

To be admitted to the bachelor of science or bachelor of arts program, students must:
■ Complete all Academic Development courses required by the University.
- Complete any courses required to address high school deficiencies.

■ Complete RA 101, PHIL 207, or PHIL 213 with a grade of C or better.
*Note: RA 101 does not count for credit toward the major in philosophy.

\section*{Retention and Academic Standards}

Maintain a cumulative grade point average of 2.0.

\section*{Transfer}

Course work completed at regionally accredited institutions will be evaluated upon admission to the University. Results of transfer credit evaluations are available to students through CougarNet. For more information about transfer, please visit siue.edu/transfer.
Students transferring philosophy courses from another institution should consult a Philosophy advisor to review how these will apply toward the requirements for a BA or BS in philosophy.

A grade of C or better must be earned in all philosophy transfer courses to count toward the required 33 hours.

\section*{Degree Requirements ( 120 hours total)}

General Education Requirements ( 35 hours)
University general education requirements are outlined in the General Education section of this catalog and included in the sample curriculum outline. Some general education requirements may be satisfied while completing this major.
Philosophy Course Requirements (33 hours)
Area Requirements ( 15 hours, five different courses)
1. Three different courses including at least one course from each of the following three areas:
A History of Western Philosophy
PHIL 300 - Ancient
PHIL 301 - Medieval
PHIL 303 - Nineteenth Century Western
PHIL 304-Eighteenth Century Philosophy
PHIL 307 - Seventeenth Century Philosophy
PHIL 308 - Twentieth Century European
PHIL 309 - Twentieth Century Analytic
B Metaphysics and Epistemology
PHIL 310 - Theories of Knowledge
PHIL 330 - Metaphysics
PHIL 345 - Women, Knowledge, and Reality
PHIL 350 - Philosophy of Mind
PHIL 411 - Advanced Logic
PHIL 415-Philosophy of Language
C Value Theory
PHIL 222-Environmental Ethics
PHIL 225-Contemporary Moral Issues
PHIL 320 -Ethics
PHIL 321 - Ethics in the Medical Comm.
PHIL 323 - Engineering, Ethics, and Prof.
PHIL 340 - Social and Political Philosophy
PHIL 343 -Philosophy of Law
PHIL 344 - Women and Values
PHIL 346 -Feminist Theory
PHIL 348 -Law and Society
PHIL 440 -Classical Political Theory
PHIL 441 - Modern Political Theory
PHIL 481 - Media Ethics
PHIL 496 - Adv. Topics in Ethical Theory
PHIL 498-Legal Theory
\begin{tabular}{|c|c|c|}
\hline \multicolumn{2}{|l|}{\multirow[t]{2}{*}{2. Two different courses, including at least one from any two of \(\mathrm{A}, \mathrm{B}\) and C :}} & 3. PHIL 480-Senior Assignment (3 hours) \\
\hline & & 4. PHIL 490 - Philosophy Seminar (3 hours) \\
\hline \multirow[t]{6}{*}{} & Cultural Pluralism & 5. Philosophy Electives (12 hours) \\
\hline & PHIL 334 -World Religions PHIL 335 - Islamic Thought & A grade of C or above must be earned in all \\
\hline & PHIL 337 - American Indian Thought & Philosophy courses to count toward the required \\
\hline & PHIL 344 - Women and Values & 33 hours. \\
\hline & PHIL 345 - Women, Knowledge, and Reality PHIL 347 - Philosophy of Race & Other Program Requirements \\
\hline & PHIL 390 - Philosophy Here and Abroad & ■ Minor (18-24 hours) \\
\hline \multirow[t]{6}{*}{B} & Religion & - For BA: \\
\hline & PHIL 331 - Philosophy, Science and Religion & - 8 hours Foreign Language \\
\hline & PHIL 333-Philosophy of Religion & -6 additional courses (18 hours) in Humanities \\
\hline & PHIL 334 -World Religions & or Fine and Performing Arts (may include \\
\hline & PHIL 335-Islamic Thought & Philosophy courses) \\
\hline & \begin{tabular}{l}
PHIL 336 -Christian Thought \\
PHIL 337 - American Indian Thought
\end{tabular} & - Additional electives (20-26 hours) \\
\hline \multirow[t]{7}{*}{} & Special Fields & - For BS: \\
\hline & PHIL 226 - Philosophy and Film & - Second LAB experience \\
\hline & PHIL 228 -Philosophy and Literature & \\
\hline & PHIL 305-Existentialism & - 8 courses (24 hours) in Life, Physical, or \\
\hline & PHIL 306 - American Philosophy & Social Sciences \\
\hline & PHIL 314-Philosophy of Science & - Additional Electives (12-18 hours) \\
\hline & \begin{tabular}{l}
PHIL 325-Philosophy of Art \\
PHIL 495-Independent Readings
\end{tabular} & \\
\hline
\end{tabular}
2. Two different courses, including at least one from any two of \(\mathrm{A}, \mathrm{B}\) and C :
A Cultural Pluralism
PHIL 334 - World Religions
PHIL 335 -Islamic Thought
PHIL 337 - American Indian Thought
PHIL 344 - Women and Values
PHIL 345 - Women, Knowledge, and Reality
PHIL 347 -Philosophy of Race

B Religion
PHIL 331 - Philosophy, Science and Religion
PHIL 333 - Philosophy of Religion
PHIL 334 - World Religions
PHL 335 -Islamic Thought
PHIL 337 - American Indian Thought
C Special Fields
PHIL 226 - Philosophy and Film
-
PHIL 306 - American Philosophy
PHIL 314-Philosophy of Science
PHIL 325-Philosophy of Art
PHIL 495- Independent Readings
3. PHIL 480 - Senior Assignment (3 hours)
4. PHIL 490 - Philosophy Seminar (3 hours)
5. Philosophy Electives (12 hours)

A grade of C or above must be earned in all Philosophy courses to count toward the required 33 hours.

\section*{Other Program Requirements}

Minor (18-24 hours)
- For BA:
- 8 hours Foreign Language
- 6 additional courses ( 18 hours) in Humanities or Fine and Performing Arts (may include Philosophy courses)
- Additional electives (20-26 hours)
- For BS:
- Second LAB experience
- 8 courses (24 hours) in Life, Physical, or Social Sciences
- Additional Electives (12-18 hours)

\section*{Sample Curriculum for the Bachelor of Arts in Philosophy}
Fall SemesterYear 1
ENG 101 - English Composition I3
Foreign Language 101 (BICS) ..... 4
RA 101 - Reasoning and Argumentation or PHIL 213 ..... 3
QR 101 - Quantitative Reasoning, MATH 150 or Higher. ..... 3
New Freshman Seminar ..... 3
Total ..... 16
Year 2
PHIL (Value Theory) (BHUM) ..... 3
Fine and Performing Arts (BFPA) ..... 3
Physical Science (BPS). ..... 3
Life, Physical or Social Science with Lab Experience (EL) ..... 1
Social Science (BSS) ..... 3
Health Experience (EH). ..... 1
Total ..... 14
Year 3
PHIL (History of Western Philosophy) (BHUM) ..... 3
PHIL Elective (BHUM) ..... 3
Interdisciplinary Studies (IS) ..... 3
Minor. ..... 3
Minor. ..... 3
Total ..... 15
Year 4
PHIL 490 - Philosophy Seminar ..... 3
Minor/Elective ..... 3
Minor/Elective ..... 3
Elective .....  3
Elective ..... 3
Total ..... 15
Spring Semester
Year 1
ENG 102 - English Composition II ..... 3
Foreign Language 102 (BICS, EGC) ..... 4
ACS 101 or 103-Oral Expression ..... 3
Life Science (BLS). ..... 3
100-200 level PHIL Elective (BHUM) ..... 3
Total ..... 16
Year 2
PHIL (Cultural Pluralism, Religion, Spec Fields) (EUSC) . ..... 3
PHIL Elective (BHUM) ..... 3
Minor. ..... 3
Minor. ..... 3
Elective ..... 3
Total ..... 15
Year 3
PHIL (Metaphysics and Epistemology) (BHUM) ..... 3
PHIL (Cultural Pluralism, Religion, or Spec Fields) (BHUM). ..... 3
PHIL Elective. ..... 3
Minor. ..... 3
Minor. ..... 3
Total ..... 15
Year 4
PHIL 480 - Senior Assignment (SRA) ..... 3
Elective ..... 3
Elective ..... 3
Elective ..... 3
Elective ..... 2
Total ..... 14
Sample Curriculum for the Bachelor of Science in Philosophy
Fall Semester
Year 1
ENG 101 - English Composition I ..... 3
RA 101 - Reasoning and Argumentation or PHIL 213 ..... 3
QR 101 - Quantitative Reasoning, MATH 150 or Higher ..... 3
Social Science (BSS) ..... 3
New Freshman Seminar ..... 3
Total ..... 15
Year 2
PHIL (Value Theory) (BHUM) ..... 3
Fine and Performing Arts (BFPA) ..... 3
Physical Science (BPS) ..... 3
Life, Physical or Social Science (BLS, BPS, or BSS) ..... 3
Life, Physical, or Social Science with Lab Experience (EL) ..... 1
Minor. ..... 3
Total ..... 16
Year 3
PHIL (History of Western Philosophy) (EGC) ..... 3
PHIL Elective. ..... 3
Interdisciplinary Studies (IS) ..... 3
Life, Physical, or Social Science (BLS, BPS, or BSS) ..... 3
Minor. .....  3
Total ..... 15
Year 4
PHIL 490 - Philosophy Seminar ..... 3Life, Physical, or Social Science (BLS, BPS, or BSS)3
Minor. ..... 3
Minor/Elective ..... 3
Minor/Elective ..... 3
Total15 TotalSpring Semester
Year 1
ENG 102 - English Composition II ..... 3
ACS 101 or 103-ORal Expression3
Life Science (BLS). ..... 3
100-200 level PHIL Elective ..... 3
Information \& Communication in Society (BICS)(PHIL 207 or PHIL 213)3
Total ..... 15
Year 2
PHIL (Cultural Pluralism, Religion, Special Fields) (EUSC) ..... 3
PHIL Elective. ..... 3
Life, Physical, or Social Science (BLS, BPS, or BSS). .....  3
Llfe, Physical, or Social Science with Lab Experience (EL) ..... 1
Minor. ..... 3
Health Experience (EH) ..... 1
Total ..... 14
Year 3
PHIL (Metaphysics and Epistemology) ..... 3
PHIL (Cultural Pluralism, Religion, or Special Fields). ..... 3
Life, Physical, or Social Science (BLS, BPS, or BSS) ..... 3
Minor. .....  3
Minor. ..... 3
Total ..... 15
Year 4
PHIL 480 - Senior Assignment (SRA) ..... 3
Elective. ..... 3
Elective . ..... 3
Elective . ..... 3
Elective. ..... 3
Total ..... 15

\section*{Philosophy Minor Requirements}

Admission Students must successfully complete (earn a grade of C or better) RA 101, PHIL 207, or PHIL 213 before applying for a minor in philosophy.

■ Note: RA 101 does not count for credit toward the minor in philosophy.

\section*{Courses Required}

A minor in philosophy consists of successful completion (C or better) of 18 hours in philosophy, including three different courses in three of the six areas.

■ PHIL 111 may count toward the 18 hours.

\section*{Graduation Requirements}

Complete all specific program requirements.

\section*{- Complete all University requirements including:}
- All general education requirements
- A minimum of 120 credit hours
- At least 30 of which must be completed at SIUE
- At least 60 of which must becompleted at a regionally accredited 4 -year institution
- A minimum cumulative grade point average of 2.0
- Bachelor of Arts only: one year of the same foreign language
- Bachelor of Science only: one additional LAB experience course
- File an Application for Graduation by the first day of the term in which you plan to graduate.

\section*{Physics}

Alumni Hall, Room 3119
siue.edu/PHYSICS

\section*{Professors}

Foster, Tom M., Ph.D., 2000, University of Minnesota
Hamad, Abdullatif Y. (Chair), Ph. D., 1996, Oklahoma State University

\section*{Associate Professors}

Garcia, Hernando, Ph. D., 1999, New Jersey Institute of Technology \& Rutgers the State University of New Jersey
Glassman, Jack, Ph. D., 1997, University of New Mexico
Kaplan, David H., Ph.D., 1983, Cornell University
Sabby, Jeffrey A. Ph.D., 2004, University of Arkansas Fayetteville

\section*{Assistant Professors}

Ackad, Edward, Ph.D., 2008, York University Vardanyan, Karen, Ph.D., 2000, National Academy of Sciences, Armenia Yousef, Mohammad, Ph.D., 2002, Florida State University

\section*{Program Description}

Physics is a study of the basic building blocks of the universe and of the laws that govern their interactions. Students of Physics attempt to develop images or descriptions of the universe using mathematical and conceptual models that are continually revised in light of new observations and discoveries. The models also help to predict properties of nature that have not yet been observed. Students will study classical physics (the Physics of Newton and Maxwell), Einstein's theory of relativity, Bohr's theory of the atom (which forms a bridge between classical Physics and modern Physics), and modern Physics, including quantum theory and atomic and statistical Physics. Throughout their study of Physics, students learn applications that lead to a variety of specialized fields of study. For example, solid state theory of semiconductors and transistors brings students into contact with electrical engineering and the electronics industry; and classical mechanics introduces the techniques of the mechanical and civil engineer.
The Department of Physics offers the Bachelor of Science degree with the following options:
1. Standard,
2. With Specialization in Astronomy,
3. With Specialization in Biomedical Physics,
4. With Specialization in Photonics and Lasers Physics.

Students interested in the Secondary Education Teacher Certification should complete the traditional BS in Physics and subsequently enroll in a MAT program.

The Bachelor of Science degree is recommended for those students planning to work in industry immediately upon graduating, or for those students who wish to pursue graduate studies in Physics. Student wishing to pursue a career in teaching will work with both the Department of Physics and the School of Education.
The Physics Department maintains teaching and research laboratories in which students develop measurement and data-analysis skills. Seniors develop individual research projects suited to their interests. The department provides experimental research opportunities in the areas of nonlinear optics, nonlinear optical properties of materials and holographic data storage, ultrafast spectroscopy, studies of the photon yields of scintillating optical fibers, the magneto-optic Kerr effect, eclipsing binary stars \& exoplanet research, and biophysical characterization and 3D structure determination of proteins using x-ray crystallography, molecular biology, biochemistry, molecular biology, biochemistry, molecular docking, and computational modeling. Our theoretical group offers research opportunities in optical properties of solids Modeling and design ultra-intense lasers, and modeling ultra-intense light-matter interactions.

The department has an active Physics Education Research group studying problem-solving in physics; implementing and developing novel and inquiry-based curriculum, and developing reliable and valid assessments.
The department also maintains a supercomputer cluster used for modeling and computational physics research, a fully automated and remotely controlled state-of-the-art observatory, and a high power x-ray facility.

\section*{Career Opportunities}

A B.S. degree in Physics opens the door to a variety of scientific and technical careers. Holders of the B.S. degree in Physics are employed in corporate and national research laboratories, and often work with other scientists and engineerings. Such employment possibilities include technical and/or research and development responsibilities as part of a team in areas as diverse as lasers and electro-optics, experimental particle physics
detector development, Biomedical work, complex computer programming and/or data analysis related to physics or astronomy experiments, and more. In addition, because of the extensive training and practice in solving complex problems that physics majors obtain en route to the B.S. degree, employers in a very wide variety of fields often favor employing physics majors. As just two examples, holders of the physics B.S. degree have been very successfully employed in careers in finance and in engineering. Probably for the same reason, on average, physics majors score higher on the medical school MCAT admissions exam than majors in any other discipline.
Many students choose to continue their education by pursuing graduate studies. The B.S. degree in physics is generally required or strongly recommended for admission to graduate study in Physics, which, in turn, is generally required for qualification to hold a University faculty position in physics. The B.S. degree in Physics is also strongly recommended for teaching physics in secondary school. In fact, because of the fundamental nature of the subject and the extensive training in scientific reasoning, a Bachelor's degree in Physics is an ideal point of departure for specialized study in almost any field, from astronomy to philosophy to music.

\section*{Degree Programs}

Bachelor of Science, Physics
Bachelor of Science in Physics, Specialization in Astronomy
Bachelor of Science in Physics, Specialization in Biomedical Physics
Bachelor of Science in Physics, Specialization in Photonics and Lasers
Bachelor of Science, Earth and Space Science Education

\section*{Program Overview and General Department Information}

\section*{Admission}

High school students who plan to major in Physics should complete at least three years of college preparatory mathematics (two years of algebra and one year of geometry) before entering the University. A fourth year of college preparatory mathematics (to include trigonometry) and one year of physics and chemistry are strongly recommended.

Admission to a degree program in Physics requires an application for a major and acceptance by the department. Once admitted, students are formally affiliated with the department and assigned an academic advisor
in the College of Arts \& Sciences. Advisement is mandatory; majors are permitted to register each term only after meeting with an academic advisor. Because the study of science is progressive, students are encouraged to select their major field of study early in their academic careers to ensure orderly progress toward meeting degree requirements. To be admitted, students already enrolled in the University must have a minimum grade point average of 2.0 in science and mathematics courses completed as well as a cumulative grade point average of 2.0 or higher in all courses taken at SIUE.

\section*{Retention}

Students should show satisfactory academic progress to be retained in a degree program. Students may be dropped from the program for any one of the following circumstances:

■ Grade point average of 1.0 or below in any term;
■ Cumulative grade point average below 2.0 in the major at any time;
■ Withdrawal, incomplete, and a combination of failing grades in 50 percent or more of the courses for which the student is registered during two successive terms;
- Any combination of two withdrawals, incompletes, or failing grades in any single required course in the major discipline.
For readmission, students must meet the same admission requirements as students entering the program for the first time.

\section*{Transfer}

Transfer students should have a 2.0 grade point average in science and mathematics courses as well as a 2.0 average in courses taken at other colleges and universities.

\section*{General Education Requirements for the Major}

University general education requirements are outlined in the General Education section of this catalog and included in the sample curriculum outline. While fulfilling University general education requirements all physics majors are required to complete the following:

\section*{Degree Requirements,} Bachelor of Science Physics
\begin{tabular}{llll} 
CHEM 131 & CHEM 135 & CS 145 & MATH 150 \\
MATH 152 & MATH 250 & MATH 305 & MATH 321 \\
ENG 334 & PHYS 120 & PHYS 151 & PHYS 151L \\
PHYS 152 & PHYS 152L & PHYS 201 & PHYS 201L \\
PHYS 251 & PHYS 304 & PHYS 314 & PHYS 318
\end{tabular}
\begin{tabular}{llll} 
PHYS 321 & PHYS 323 & PHYS 376 & PHYS 406 \\
PHYS 416 & PHYS 499a,b & IS 364 & \\
Elective 1*: PHYS 240 or 410 & \\
Elective 2*: One of the following-PHYS 230, 343, 397, 398, \\
442, 450, 472, 497, 498. \\
Degree Requirements, Bachelor of Science \\
Physics with Specialization in Astronomy \\
CHEM 131 & CHEM 135 & CS 145 & MATH 150 \\
MATH 152 & MATH 250 & MATH 305 & MATH 321 \\
ENG 334 & PHYS 120 & PHYS 151 & PHYS 151L \\
PHYS 152 & PHYS 152L & PHYS 201 & PHYS 201L \\
PHYS 230 & PHYS 251 & PHYS 304 & PHYS 318 \\
PHYS 321 & PHYS 323 & PHYS 376 & PHYS 406 \\
PHYS 416 & PHYS 410 & PHYS 343 & PHYS 499a,b \\
IS 364 & & &
\end{tabular}

Elective *: One of the following -PHYS 240, 314, 343, 396, 397, 398, 442, 450, 472, 496, 497, 498.

\section*{Degree Requirements, Bachelor of Science Physics with Specialization in Biomedical Physics}

CHEM 121a,b CHEM 125a,b CHEM 241a CS 145
BIOL 150 MATH 152 MATH 250 MATH 305
MATH 321 ENG 334 PHYS 120 PHYS 151
PHYS 151L PHYS 152 PHYS 152L PHYS 201
PHYS 201L PHYS 240 PHYS 251 PHYS 304
PHYS 318 PHYS 321 PHYS 323 PHYS 406
PHYS 442 PHYS 499a,b IS 364
Elective 1*: One of the following-PHYS 230, 314, 343, 392,
410, 416, 472, 492

Degree Requirements, Bachelor of Science Physics with Specialization in Photonics and Laser Physics
\begin{tabular}{llll} 
CHEM 131 & CHEM 135 & CS 145 & MATH 150 \\
MATH 152 & MATH 250 & MATH 305 & MATH 321 \\
ENG 334 & PHYS 120 & PHYS 151 & PHYS 151L \\
PHYS 152 & PHYS 152L & PHYS 201 & PHYS 201L \\
PHYS 251 & PHYS 304 & PHYS 314 & PHYS 318 \\
PHYS 321 & PHYS 323 & PHYS 376 & PHYS 406 \\
PHYS 410 & PHYS 416 & PHYS 472 & PHYS 499a,b
\end{tabular} IS 364

Elective *: One of the following-PHYS 230, 240, 343, 393, 397, 398, 442, 450, 472, 493, 497, 498.

\section*{Secondary Education Teacher Certification Option}

Students interested in the Secondary Education Teacher Certification should complete the traditional BS in Physics and subsequently enroll in a MAT program. In addition to the standard BS in Physics degree, we recommend the following course to prepare student for the teacher certification.
CHEM 121a,b CHEM 125a,b CHEM 241a BIOL 150 BIOL 151 PHYS 118 PHYS 118L GEOG 210 SCl 451

\section*{Pre-Medical Program Option}

Students interested in becoming medical students need to take the following courses in addition to the courses required for the Bachelor of Science in Physics with Specialization in Biomedical Physics.
CHEM 241b CHEM 245 BIOL 151

\section*{Sample Curriculum for the Bachelor of Science in Physics - Standard}
Fall SemesterYear 1
PHYS 120 - Frontiers in Physics: Past and Present .....  3
CHEM 131 -Engineering Chemistry ..... 4
CHEM 135 -Engineering Chemistry Lab (EL) ..... 1
MATH 150 - Calculus I (QR) ..... 5
ENG 101 - Composition ..... 3
Total ..... 16
Year 2
PHYS 152 - University Physics II (BPS) ..... 4
PHYS 152L - University Physics II Laboratory (EL) ..... 1
MATH 250 -Calculus III (BPS) ..... 4
MATH 321 - Linear Algebra I ..... 3
RA 101 - Reasoning \& Argumentation ..... 3
Total ..... 15
Year 3
PHYS 318 - Theory \& Application of Electronic Measure . . . . . . 3
PHYS 304 - Intro to Quantum Physics ..... 4
PHYS 321- Intro to Classical Mechanics ..... 4
Elective \({ }^{*}\) ..... 3
Total ..... 14
Spring Semester
Year 1
ENG 102-Composition II ..... 3
ACS 101 or 103-Oral Expression ..... 3
MATH 152 - Calculus II (BPS) ..... 5
PHYS 151 - University Physics I (BPS) ..... 4
PHYS 151L - University Physics I Laboratory (EL) ..... 1
Total ..... 16
Year 2
PHYS 201 - University Physics III (BPS) ..... 4
PHYS 201L - University Physics III Laboratory (EL) .....  1
PHYS 251 - Waves. ..... 4
MATH 305 - Differential Equations ..... 3
Humanities (BHUM) ..... 3
Total ..... 15
Year 3
PHYS 323 - Statistical Mechanics (Odd Year) ..... 4
PHYS 406 - Electromagnetic Fields and Waves (Odd Year). ..... 4
PHYS 376 - Career Preparation in Physics ..... 1
PHYS 314 - Modern Data Acquisition (Even Year) ..... 3
PHYS 416 - Principles of Quantum Mechanics (Even Year). ..... 4
CS 145-Introduction to Computing .....  3
ENG 334 - Scientific Writing ..... 3
Total ..... 14/15
Sample Curriculum for the Bachelor of Science in Physics - Standard cont.
Fall Semester
Year 4
IS 364 - The Atomic Era. ..... 3
Fine \& Performing Arts (BFPA) ..... 3
Life Science and Health Experience (BLS, EH) ..... 3
Elective. ..... 3
PHYS 499a - Senior Assignment Project: Part I ..... 3
Total ..... 15

Spring Semester
Year 4
\begin{tabular}{|c|c|}
\hline PHYS 314 - Modern Data Acquisition (Even Year) & \\
\hline PHYS 416 - Principles of Quantum Mechanics (Even Year) & \\
\hline PHYS 323-Statistical Mechanics (Odd Year) & \\
\hline PHYS 406 - Electromagnetic Fields and Waves (Odd Year). & \\
\hline Elective 2*. & \\
\hline Social Sciences (BSS) & \\
\hline PHYS 499b - Senior Assignment Project & \\
\hline
\end{tabular}
PHYS 499b - Senior Assignment Project: Part II .15/16

\section*{Sample Curriculum for the Bachelor of Science in Physics Specialization in Astronomy}

Fall Semester
Year 1
PHYS 120 - Frontiers in Physics: Past and Present. . . . . . . . . . . 3
CHEM 131 -Engineering Chemistry
Spring Semester
Year 1
3
ENG 102-Composition II
3
ACS 101 or 103-Oral Expression
CHEM 135-Engineering Chemistry Lab (EL) MATH 152 - Calculus II (BPS). .....  5
MATH 150 - Calculus I (QR) PHYS 151 - University Physics I (BPS) ..... 4
ENG 101 -Composition 3 PHYS 151L - University Physics I Laboratory (EL) ..... 1
Total ..... 16
Total ..... 16
Year 2
PHYS 152 - University Physics II (BPS) ..... 4PHYS 152L - University Physics II Laboratory (EL).
PHYS 201 - University Physics III (BPS) ..... 4
Year 2
Year 21
MATH 250 - Calculus III (BPS) . 4 PHYS 251-Waves ..... 4
MATH 321 - Linear Algebra I 3 MATH 305 - Differential Equations ..... 3
RA 101 - Reasoning \& Argumentation 3 Elective* (even Year) ..... 3
Total ..... 15 ..... 
3 ..... 
3 ..... 15
PHYS 230 - Planetary and Solar System (Odd Year)
PHYS 230 - Planetary and Solar System (Odd Year)
Year 3
PHYS 318 - Theory \& Application of Electronic Measure3
PHYS 304 - Intro to Quantum Physics
PHYS 321- Intro to Classical Mechanics4 PHYS 323 - Statistical Mechanics (Odd Year)
3
Year 3
Year 3
PHYS 230 - Planetary and Solar System (Odd Year)4
PHYS 406 - Electromagnetic Fields and Waves (Odd Year) ..... 4
PHYS 410-Optics (Odd Year) 3 PHYS 343 - Stellar Astronomy and Astrophysics (Even Year) ..... 3
Humanities (BHUM) (Even Year) . 3 PHYS 416 - Principles of Quantum Mechanics (Even Year). ..... 4
Total 14 Elective* (even Year) ..... 3
ENG 334 - Scientific Writing ..... 3
PHYS 376 - Career Preparation in Physics ..... 1
Total ..... 14/15
Year 4
CS 145 - Introduction to Computing .....  3
Year 4
PHYS 343 - Stellar Astronomy and Astrophysics (Even Year) ..... 3
IS 364 - The Atomic Era ..... 3
PHYS 410-Optics (Odd Year) ..... 3
Life Science and Health Experience (BLS, EH)3
Humanities (BHUM) (Even Year). ..... 3
PHYS 499a - Senior Assignment Project: Part I3
PHYS 416 - Principles of Quantum Mechanics (Even Year) ..... 4
PHYS 323 - Statistical Mechanics (Odd Year) ..... 4
PHYS 406 - Electromagnetic Fields and Waves (Odd Year) ..... 4
Fine \& Performing Arts (BFPA) ..... 3
Social Sciences (BSS) ..... 3
Total ..... 15

PHYS 499b - Senior Assignment Project: Part II . . . . . . . . . . . . . 2
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15/16

Elective *: One of the following-PHYS 240, 314, 343, 396, 397, 398, 442, 450, 472, 496, 497, 498.

\section*{Sample Curriculum for the Bachelor of Science in Physics Specialization in Biomedical Physics}
Fall Semester

Spring SemesterYear 1
PHYS 120 - Frontiers in Physics: Past and Present .....  3
CHEM 121a-General Chemistry I ..... 4
CHEM 125a-General Chemistry Lab I (EL) ..... 1
ACS 101 or 103-Oral Expression ..... 3
ENG 101 -Composition ..... 3
Total ..... 14
Year 2
PHYS 152 - University Physics II (BPS) ..... 4
PHYS 152L - University Physics II Laboratory (EL) ..... 1
MATH 250 - Calculus III (BPS) ..... 4
ENG 102 - Composition II ..... 3
RA 101 - Reasoning \& Argumentation ..... 3
Total ..... 15
Year 3
CS 145 - Introduction to Computer ..... 3
CHEM 241a - Organic Chemistry I. ..... 3
PHYS 240 - Intro to Biomedical Physics (Even Year) ..... 3
Elective1* (Odd Year) ..... 3
PHYS 304 - Intro to Quantum Physics ..... 4
PHYS 321- Intro to Classical Mechanics ..... 4
Total ..... 17
Year 4
IS 364 - The Atomic Era ..... 3
PHYS 240 - Intro to Biomedical Physics (Even Year) ..... 3
PHYS 318 - Digital Electronics ..... 3
Fine \& Performing Arts (BFPA) ..... 3
Elective1* (Odd Year) ..... 3
PHYS 499a - Senior Assignment Project: Part I ..... 3
Total ..... 15
Year 1
CHEM 121b - General Chemistry II ..... 4
CHEM 125b - General Chemistry Lab II (EL) ..... 1
MATH 152 - Calculus II (BPS) ..... 5
PHYS 151 - University Physics I (BPS) ..... 4
PHYS 151L - University Physics I Laboratory (EL) ..... 1
Total ..... 15
Year 2
PHYS 201 - University Physics III (BPS) ..... 4
PHYS 201L - University Physics III Laboratory (EL) ..... 1
PHYS 251 - Waves ..... 4
BIOL 150 - Introduction to Biological Science (BLS) ..... 4
Health Experience (EH). ..... 2
Total ..... 15
Year 3
PHYS 323 - Statistical Mechanics (Odd Year) ..... 4
PHYS 406 - Electromagnetic Fields and Waves (Odd Year). ..... 4
PHYS 442 - Topics in Medical Physics (Odd Year) ..... 3
MATH 305 - Differential Equations ..... 3
MATH 321 - Linear Algebra (Even Year) ..... 3
Social Sciences (BSS) (Even Year) ..... 3
Humanities (BHUM) (Even Year) ..... 3
ENG 334 - Scientific Writing ..... 3
Total ..... 15/17
Year 4
PHYS 323 - Statistical Mechanics (Odd Year) ..... 4
PHYS 406 - Electromagnetic Fields and Waves (Odd Year) ..... 4
PHYS 442 - Topics in Medical Physics (Odd Year) ..... 3
MATH 321 - Linear Algebra (Even Year) ..... 3
Humanities (BHUM) (Even Year). ..... 3
Social Sciences (BSS) (Even Year) ..... 3
Elective ..... 3
PHYS 499b - Senior Assignment Project: Part II . ..... 2
Total ..... 14/16
*Elective1: Choose one of the following: PHYS 230, 314, 343, 392, 410, 416, 472, 492
Sample Curriculum for the Bachelor of Science in Physics - Specialization in Photonics and Laser Physics
Fall Semester
Year 1
PHYS 120 - Frontiers in Physics: Past and Present ..... 3
CHEM 131 -Engineering Chemistry ..... 4
CHEM 135-Engineering Chemistry Lab (EL) ..... 1
MATH 150 - Calculus I (QR) ..... 5
ENG 101 -Composition ..... 3
Total ..... 16
Year 2
PHYS 152 - University Physics II (BPS) ..... 4
PHYS 152L - University Physics II Laboratory (EL) ..... 1
MATH 250 - Calculus III (BPS) ..... 4
MATH 321 - Linear Algebra I ..... 3
RA 101 - Reasoning \& Argumentation ..... 3
Total ..... 15
Spring Semester
Year 1
ENG 102-Composition II ..... 3
ACS 101 or 103-Oral Expression ..... 3
MATH 152 - Calculus II (BPS) ..... 5
PHYS 151 - University Physics I (BPS) ..... 4
PHYS 151L - University Physics I Laboratory (EL) ..... 1
Total ..... 16
Year 2
PHYS 201 - University Physics III (BPS) ..... 4
PHYS 201L - University Physics III Laboratory (EL) ..... 1
PHYS 251 - Waves ..... 4
MATH 305 - Differential Equations .....  3
Humanities (BHUM) ..... 3
Total ..... 15

\section*{Sample Curriculum for the Bachelor of Science in Physics - Specialization in Photonics and Laser Physics cont.}
Fall Semester Spring Semester
Year 3
PHYS 318 - Theory \& Application of Electronic Measure . . . . . . 3 ..... 3
PHYS 304 - Intro to Quantum Physics ..... 4
PHYS 321- Intro to Classical Mechanics
PHYS 410 - Optics (Odd Year). ..... 3
Fine \& Performing Arts (BFPA) (Even Year) ..... 3
Total ..... 14
Year 3
Life Sciences and Health Experience (EH) (Odd Year) ..... 3
PHYS 323 - Statistical Mechanics (Odd Year) ..... 4
PHYS 406 - Electromagnetic Fields and Waves (Odd Year). ..... 4
PHYS 314 - Modern Data Acquisition (Even Year). ..... 3
PHYS 472 - Photonics Laboratory (Even Year)PHYS 416 - Principles of Quantum Mechanics (Even Year). .... 4
PHYS 376 - Career Preparation in Physics4
ENG 334 - Scientific Writing ..... 3
Total ..... 14/15
Year 4
CS 145 - Introduction to Computing ..... 3
IS 364 - The Atomic Era. ..... 3
PHYS 410 - Optics (Odd Year) ..... 3
Fine \& Performing Arts (BFPA) ..... 3
Elective* ..... 3
PHYS 499a - Senior Assignment Project: Part I ..... 3
Total ..... 15

Year 4
PHYS 323 - Statistical Mechanics (Odd Year) . . . . . . . . . . . . . . . 4
PHYS 406 - Electromagnetic Fields and Waves (Odd Year) . . . . . 4
Life Sciences \& Health Experience (BLS, EH) (Odd Year) . . . . . . 3
PHYS 416 - Principles of Quantum Mechanics (Even Year). . . . . 3
PHYS 314 - Modern Data Acquisition (Even Year) . . . . . . . . . . . . 3
PHYS 472 - Photonics Laboratory (Even Year) . . . . . . . . . . . . . . . 3
Social Sciences (BSS) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
PHYS 499b - Senior Assignment Project: Part II . . . . . . . . . . . . . 2
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15/16

Elective *: One of the following - PHYS 230, 240, 343, 393, 397, 398, 442, 450, 472, 493, 497, 498.

\section*{Minor Requirements}

The minor program in physics consists of at least 20 hours with a grade point average of 2.0 or higher in the following courses:

\section*{All these courses}

PHYS 151 - University Physics I
PHYS 152 - University Physics II
PHYS 151L - University Physics I Laboratory
PHYS 152L - University Physics II Laboratory
PHYS 201- University Physics III
PHYS 201L - University Physics III Laboratory PHYS 251- Waves

\section*{And at least one of the following}

PHYS 230 - Planetary and Solar System Astronomy
PHYS 240 - Introduction to Biomedical Physics
PHYS 304 - Intro to Quantum Physics
PHYS 314 - Modern Data Acquisition
PHYS 318 - Theory \& Application of Electronic Measure
PHYS 320 - Special Relativity
PHYS 321 - Mechanics
PHYS 323 - Statistical Mechanics
PHYS 406 - Electromagnetic Fields and Waves
PHYS 410 - Optics
PHYS 416 - Quantum Mechanics
PHYS 419 - Mathematical Physics
PHYS 430 - Intro to Physics Education Research
PHYS 450 - Solid State Physics

At least 6 hours of the above courses must be SIUE credit. The physics undergraduate advisory committee must approve any exceptions to the requirements listed above for the physics minor program.

\section*{Graduation Requirements}

The following requirements must be met in order to obtain a degree in physics:
■ Earn a minimum of 120 hours of acceptable credit with a cumulative grade point average of 2.0 or higher;
■ Complete the minimum number of credit hours required for a particular degree;
- Complete at least 12 hours of SIUE credit in major courses numbered above 299 with a cumulative grade point average of 2.0 or above;

■ Earn a grade of "C" or better in all major courses numbered above 200;

■ Complete at least 6 hours of credit in major courses numbered above 299 earned at SIUE within 2 years preceding graduation.

Duplicate credits of several types are not applicable toward graduation requirements: credit hours earned (through proficiency, transfer, CLEP, or from a course) after credit has been received for similar or more advanced course work in the same subject at SIUE or elsewhere.

\section*{Earth and Space Science Education}

An overall grade point average of 2.5 is required for admission to the School of Education teacher licensure program.
\begin{tabular}{|c|c|c|c|}
\hline \multicolumn{4}{|l|}{Degree Requirements B.S. Earth and Space Science Education:} \\
\hline BIOL150 & BIOL151 & CHEM 121a, & CHEM 125a,b \\
\hline CIED 100 & Cl 315a,b & Cl 352 & HCl 440 \\
\hline EPFR 315 & EPFR 320 & ESCI111 & GEOG 202 \\
\hline GEOG 210 & GEOG 211 & GEOG 314 & PHYS 118 \\
\hline PHYS 230 & PHYS 131 & PHYS 132 & \\
\hline HYS 494 or & EM 494 & SCl 451 & SPE 400 \\
\hline
\end{tabular}

\section*{Admission}

Admission to a teacher education program is a joint decision by the academic discipline in the College of Arts and Sciences and the School of Education. Therefore, it is essential that any student desiring teacher licensure meet with an advisor in the School of Education Student Services for admission to the teacher education program.

\section*{B.S. in Physics with Teacher Licensure (6-12)}

Students interested in teacher licensure (6-12) are encouraged to complete the traditional BS in Physics then apply to a MAT program.

\section*{Sample Curriculum for the Bachelor of Science in Earth and Space Science Education}
Year 2
BIOL 151 - Intro Biol Sciences II (BLS, EL) ..... 4
CIED 100 - Introduction to Education ..... 3
ESCI 111 - IntroPhysical Geology \& Geography (BPS, EL). ..... 3
PHYS 131/131L - College Physics I (BPS) ..... 5
Complete ILTS Test of Academic Proficiency (formerly the BasicSkills Test) for Admission to the Teacher Certification ProgramTotal15
Year 3
PHYS 118-Astronomy ..... 3
GEOG 202 - Resource Use and Management .....  3
GEOG 314 - Climatology (PS) ..... 3
Fine \& Performing Arts (BFPA) .....  3
IS 364 - The Atomic Era (EGC) (IS) ..... 3
Total ..... 15
Year 4
CHEM 494 or PHYS 494 - Methods of Teaching Chemistry or Physics in Secondary Schools ..... 3
Cl 315 a - Methods for Teaching in Secondary Schools ..... 2
Cl 440 - Teaching Reading in Secondary Schools ..... 3
EPFR 315 -Educational Psychology ..... 3
EPFR 320 - Foundations of Education in a Multicultural Society .
SPE 400 - The Exceptional Child ..... 3
Total ..... 17
Spring Semester
Year 1
BIOL 150 - Intro Biol Sciences I (BLS, EL). ..... 4
CHEM 121b - General Chemistry II (BPS) ..... 4
CHEM 125b - General Chemistry Lab II (EL) ..... 1
ENG 102 -English Composition II. ..... 3
Social Sciences (BSS) ..... 3
RA 101 - Reasoning \& Argumentation ..... 3
Total ..... 18
Year 2
GEOG 210 - Physical Geography (BPS). ..... 3
PHYS 132/132L - College Physics II (BPS) ..... 5
STAT 244 - Statistics (BICS) ..... 4
GEOG 211 - Meteorology (BPS, EL) ..... 3
Total ..... 15
Year 3
PHYS 230 - Planetary and Solar System (Odd Year) ..... 3
SCl 451 - Integrated Science (Even Year) ..... 3
Health Experience (EH) ..... 0
Humanities (BHUM) ..... 3
ENG 334-Scientific Writing ..... 3
Total ..... 12
Year 4
Cl 315 b - Methods for Teaching in Secondary Schools ..... 2
Cl 352 - Student Teaching ..... 10
Total ..... 12

\section*{Political Science}

Peck Hall, Room 3234
siue.edu/artsandsciences/politicalscience

\section*{Associate Professors}

DeGarmo, Denise K., (Chair), Ph.D., 2001, University of Michigan
Guehlstorf, Nicholas P., Ph.D., 2002, Purdue University
Hayden Foster, Carly, Ph.D., 2005, University of Kansas
Moffett, Kenneth W., Ph.D., 2006, University of Iowa
Rice, Laurie L., Ph.D., 2005, University of California, San Diego
Theising, Andrew J., Ph.D., 1997, University of Missouri-St. Louis

\section*{Assistant Professors}

Flaherty, Anne F. Boxberger, Ph.D., 2009, Duke University
Weeraratne, Suranjan, Ph.D., 2009, McGill University
Wilson, Sophia, Ph.D., 2011, University of Washington

\section*{Program Description}

The Department of Political Science offers courses broadly concerned with the study of government and politics, organized into seven fields:
- In American government and politics, students examine various aspects of the American political system, including legislatures, parties, campaigns and elections, and issues of public policy.
■ In comparative politics, students learn about and compare the political cultures, economies, parties, and institutions within other countries.
■ Students in international relations study the relations among nations and relations with international bodies such as the United Nations.

■ In political theory, students examine the attempts of important thinkers to define the functions of the state and the rights and obligations of citizens. Students in this field also study efforts to develop comprehensive theories of politics through analysis and the evaluation of political behavior.

■ In public administration, students explore bureaucracies and ways in which public business is conducted.
- In public law, students examine the nature of the judicial process and the role of the courts in interpreting and applying the Constitution of the United States.
- Political analysis explores research design, concepts and methodology.
Minor programs and transfer credits must be approved in the minor department. Political science transfer courses for the major or minor must carry a grade of C or better and must be approved by the department chairperson. The department conducts two internship programs in which students can obtain both practical experience and an opportunity to evaluate potential careers. The legal internship allows students to work in the offices of public defenders, prosecuting officers, and court officials or in campaigning. The internship in government allows students to work in the offices of local, county or state officials.

\section*{Career Opportunities}

Students who major in political science have entered careers in business, government service (at the federal, state and local levels), law, teaching, journalism, and public and private interest groups. We offer a program in teacher licensure ( \(6-12\) ). Recent projections both by government and by public agencies indicate demand for government employees will continue near the present level for lawyers and for college graduates interested in careers in government. A major in political science provides knowledge of political and bureaucratic processes and analytical skills. Such students also will have an opportunity to develop specialized knowledge in a number of policy areas.

Careers in business organizations or with interest groups often call for similar skills. Many students have found this major a useful preparation for law school as well as for the practice of law. In all these areas, experience gained in an internship can be a significant advantage.
In addition to providing preparation for specific careers, a major in political science can provide general career-building skills. Courses that focus on the analysis of political and social data help students develop analytical and reasoning skills. Students also can become familiar with statistical techniques and computer use, and develop writing skills.

\author{
Degree Programs
}

Bachelor of Arts, Political Science Bachelor of Science, Political Science
Teacher Licensure (6-12) Program is available

\section*{Program Overview and General Department Information}

Admission Students applying for a major or minor in political science must have:
■ completed the General Education requirements for writing skills (ENG 101 and 102 or equivalent);

■ resolved all high school course deficiencies; and

■ a minimum overall G.P.A of 2.5. This requirement also applies to any transfer G.P.A.

\section*{Retention}

Students must maintain a cumulative grade point average of at least 2.0 to remain in good academic standing. Students whose cumulative grade point average falls below 2.0 will be placed on academic probation, returned to undeclared status and limited to a maximum of 12 hours of enrollment per term.

\section*{Transfer}

Course work completed at regionally accredited institutions will be evaluated upon admission to the University. Results of transfer credit evaluations are available to students through CougarNet. For more information regarding transfer, please visit siue.edu/transfer.

\section*{General Education Requirements}

University general education requirements are outlined in the General Education section of this catalog and included in the sample curriculum outline.

\section*{Degree Requirements}

General Education Requirements \({ }^{\star}\)
Major Requirements (33 hours)
POLS 111 POLS 112 POLS 300 POLS 400
A minimum of 3 hours in four of the following six fields:
American Government and Politics
340 - The Presidency
341 - Congress and Legislation
342 - American Public Policy
343-American State Politics
344 - Urban Politics
345 - Parties and Interest Groups
346 - Public Opinion
390 - The Judicial System

440 - African American Politics
441 - Women and Politics in America
445 - Voting and Elections
449 - Topics in American Politics
Comparative Politics
350 -Political Systems of Western Europe
351 - Eastern European Political Systems in Transition
352 - Politics of Development
354 - Women and Cross-National Politics
355 - Political Systems of Latin America
356 - Political Systems of Asia
459 - Topics in Comparative Politics
International Relations
370 - Intro to International Relations
371 - International Political Economy
472 - International Organizations
473 - U.S. Foreign Policy
479- Topics in International Relations
Political Analysis
400 - Political Science Senior Assignment
449 - Topics in American Politics
Political Theory
385 - Introduction to Political Theory
386 - American Political Ideas and Origins
484 -Classical Political Theory
485 - Modern Political Theory
489 - Topics in Political Theory
Public Administration
320 - Introduction to Public Administration
424-Administrative Law
429 - Topics in Public Administration
Public Law
390 - The Judicial System
424-Administrative Law
495-Constitutional Law I
496 -Constitutional Law II
497 -Environmental Law
499 - Topics in Public Law
Additional Courses Available
310 - Independent Readings and Research
Required Minor (18-21 hours)
Electives (26-31 hours)
A minimum of 120 hours is required for the degree
* Students electing completion of a bachelor of arts degree must complete 8 courses in fine \& performing arts or humanities including one year of the same foreign language.

\section*{Requirements for students seeking Teacher Licensure (6-12)}

Students who intend to teach at the secondary level may complete the bachelor of science degree with a major in political science. The major constitutes the teaching field of concentration. Students pursuing this degree also must complete the Strong minor in Social Science Education as follows:

ANTH 111b - Human Culture \& Communication
SOC 111 - Introduction to Sociology
ECON 111 - Macroeconomics
ECON 112-Microeconomics
GEOG 201 - World Regions
GEOG 205 - Human Geography
GEOG 210 - Physical Geography
HIST 112A - World History
HIST 112B - World History
HIST 323 - History/Pedagogy
Two of these 111-numbered courses, outside of one's major, may count toward Introductory credit in social science for general education, along with one of the courses in the minor numbered above 111, which may count toward distribution in social sciences. The following are required of all students including transfer students and those who already have a bachelor's degree:
■ Licensure requires a 2.75 GPA in political science courses, including those completed at past institutions.
- completion of the strong minor in social sciences.
■ completion of social sciences/pedagogy before taking CI 352L, Student Teaching.
- approval by an interdisciplinary committee on Teacher education and composed of representatives of the departments of Geography, Historical Studies and Political Science.

Returning students who hold a degree in political science must complete POLS 430, Review for Teacher Licensure.

Students also must complete the required program of professional education requirements in the School of Education and state requirements for licensure. Therefore, it is essential that any student desiring teacher licensure meet with an advisor in the School of Education Student Services or admission to the teacher education program.

\section*{Sample Curriculum for the Bachelor of Arts or Bachelor of Science in Political Science}
Fall Semester
Year 1
ENG 101 -English Composition I ..... 3
ACS 101 or 103-Oral Expression ..... 3
Fine \& Performing Arts (BFPA) ..... 3
Humanities (BHUM)/United States Cultures (EUSC) .....  3
Information \& Communication in Society (BICS) ..... 3
Total ..... 15
Year 2
POLS 112 - American National Government (BSS) ..... 3
QR 101, MATH 150 or Higher ..... 3
Foreign Language 101 (BA degree) or Life, Physical or Social
Science with a lab (EL) (BS degree) ..... 3-4
Minor. ..... 3
Minor. ..... 3
Total ..... 15-16
Year 3
POLS (Subfield \#2) ..... 3
POLS 300 (BSS) ..... 3
Minor. ..... 3
Fine \& Performing Arts or Humanities (BA degree) ..... 3
Physical Science (BPS). ..... 3
Total ..... 15
Year 4
POLS (Subfield \#4) ..... 3
POLS 400 - Political Science Senior Assignment. ..... 3
Minor. .....  3
Elective ..... 2-3
Interdisciplinary Studies (IS) .....  3
Total ..... 14-15
Spring Semester
Year 1
POLS 111 - Intro to Political Science (BSS, EGC) ..... 3
ENG 102 - English Composition II ..... 3
RA 101 - Reasoning \& Argumentation ..... 3
Life Science (BLS) with a Lab Experience (EL) .....  3
Fine \& Performing Arts or Humanities (BA degree) ..... 3
Total ..... 15
Year 2
POLS (Subfield\#1) ..... 3
Health Experience (EH). .....  3
Foreign Language 102 (BA degree). ..... 4
Fine \& Performing Arts or Humanities (BA degree) .....  3
Minor .....  3
Total ..... 16
Year 3
POLS (Subfield \#3) ..... 3
POLS Elective .....  3
Minor. .....  3
Minor/Elective . ..... 3
Fine \& Performing Arts or Humanities (BA degree) .....  3
Total ..... 15
Year 4
POLS Elective ..... 3
POLS Elective ..... 3
Elective .....  3
Elective . .....  3
Elective .....  2
Total ..... 13

Students wishing to obtain a Bachelor of Arts degree may do so by adding one year of foreign language.

\section*{Sample Curriculum for the Bachelor of Science in Political Science Education}
Semester
Year 1
ENG 101 -English Composition I ..... 3
ACS 101 or 103-Oral Expression ..... 3
ANTH 111b - Intro to Human Culture \& Comm (BSS, EGC, EUSC) ..... 3
Fine \& Performing Arts (BFPA) ..... 3
Life Science (BLS)/Health Experience (EH) ..... 3
Total ..... 15
Year 2
POLS 112 - American National Government (BSS) .....  3
ECON 111 - Principles of Macroeconomics (BSS) ..... 3
GEOG 201 - World Regions (BSS, EGC) ..... 3
GEOG 210 - Physical Geography (BPS) .....  3
QR 101, MATH 150 or Higher ..... 3
Total ..... 15
Year 3
POLS (Subfield \#2) ..... 3
POLS Elective ..... 3
EPFR 315 -Educational Psychology ..... 3
EPFR 320 -Foundations of Education in a Multicultural Society . .....  3
HIST 112a - World History (BHUM, EGC) ..... 3
Total ..... 15
Year 4
POLS (Subfield \#4) .....  3
POLS 400 - Political Science Senior Assignment ..... 3
CI 315a - Methods of Teach in the Secondary School ..... 3
Cl 440 - Teaching Reading in the Secondary School .....  3
Interdisciplinary Studies (IS) ..... 3
Total ..... 15
Spring Semester
Year 1
POLS 111 - Intro to Political Science (BSS, EGC) ..... 3
ENG 102 - English Composition II. ..... 3
RA 101 - Reasoning \& Argumentation ..... 3
SOC 111 - Intro to Sociology (BSS) ..... 3
Information \& Communication in Society (BICS) ..... 3
Total ..... 15
Year 2
POLS (Subfield\#1) ..... 3
POLS 300 (BSS) ..... 3
CIED 100 Introduction to Education .....  3
ECON 112 - Principles of Microeconomics (BSS) ..... 3
GEOG 205 - Human Geography (BSS, EGC, EL) ..... 3
Life, Physical or Social Science with a lab (EL) ..... 3
Total ..... 18
Year 3
POLS (Subfield \#3) ..... 3
POLS Elective ..... 3
POLS Elective ..... 3
HIST 112b - World History (BHUM, EGC) ..... 3
HIST 323 - History/Pedagogy. ..... 3
SPE 400 - The Exceptional Child ..... 3
Total ..... 18
Year 4
Cl 315b - Methods of Teaching in the Secondary School ..... 2
Cl 352 - Student Teaching ..... 10
Total ..... 12

\section*{Minor Requirements}

The requirements for a minor in political science include the following: a minimum of 18 hours, including POLS 111 and 112, and at least one course in three of the six areas of specialization. A minimum grade average of C is required in political science courses.

\section*{Graduation Requirements}

Students majoring in political science must complete a POLS 400 - Senior Assignment.

Students must receive a grade of C or better in all Political Science courses that count toward the major or minor, with a minimum G.P.A of 2.0 in all Political Science classes taken at SIUE.

\section*{Pre-Law Preparation}

Entrance into law school does not require any specific major or any specific course requirements. Law schools judge applicants based upon their cumulative grade point average and law school admission test (LSAT) scores. Students wishing to attend law school must obtain an
undergraduate degree before entering law school. However, students typically apply to law school beginning in the fall of their senior year. To prepare for entrance, students are encouraged to take the law school admission test the June following their junior year, or in October of their senior year.

Many students find that undergraduate courses in philosophy, such as critical thinking, and courses in political science, history and English are helpful in law school. Any course emphasizing technical writing skills is especially helpful in law school. Students considering law should like working with people, enjoy reading, have good communication skills, and be excellent writers.
The University encourages students interested in a law career to participate in the Pre-Law Association. The association, together with Student Legal Services, sponsors an annual PreLaw Night in the fall of each year, which brings recruiters from numerous law schools to campus to discuss admission to law school with interested students. The Pre-Law Association also visits area law schools and brings in speakers on law-related topics.

\section*{Social Work}

Peck Hall, Room 1306
siue.edu/artsandsciences/socialwork

\section*{Professors}

Brown, Venessa A. (Assistant Provost), Ph.D., 1994, Clark Atlanta University
Kreuger, Larry, Ph.D., 1983, St. Louis University
O’Brien, Gerald V. (BSW Program Director), Ph.D., 1997, University of Illinois-Urbana

\section*{Associate Professors}

Duckham, Bryan C. (MSW Program Director), Ph.D., 2007, Loyola University of Chicago
Tunney, Kathleen J. (Chair), Ph.D., 1999, University of Illinois-Chicago

\section*{Assistant Professors}

Carter, Kimberly A., PhD., 2010, Washington University
Schreiber, Jill, Ph.D, 2013, University of Illinois-Urbana
Swanke, Jayme R., Ph.D., 2009,
Southern Illinois University Carbondale
Wesley, Carol A., Ph.D., 1987,
Saint Louis University (Director of Practica)

\section*{Instructors}

Moseley, Thomas E., MS, 1977, Southern Illinois University Edwardsville

\section*{Program Description}

The undergraduate social work program focuses on the knowledge, values, and skills needed for social work practice. Its primary purpose is to prepare graduates for entry-level direct practice in social work. The program also prepares students for graduate studies in advanced social work practice. The undergraduate program is accredited by the Council on Social Work Education (CSWE).

The Social Work program prepares generalist social workers for many types of practice, and offers opportunities to explore specific interests through the selection of electives and the field placement setting. The primary professional purpose of social work is to promote social functioning and enhance social development at all systems levels. The social worker acts as a facilitator of change with individuals, families, groups, organizations and communities; promotes improvement in social conditions; serves as an advocate for people who are subject to discrimination or social or economic injustice;
and provides individuals access to needed resources and services. In addition to completing on-campus course work, social work students engage in field work in local social service agencies in several courses. This culminates in the senior field placement (SOCW 482 and 483), which requires a minimum of 400 hours of supervised social work practice in a local agency over two consecutive semesters.

\section*{Career Opportunities}

The bachelor's degree in social work qualifies graduates for practice in entry-level positions in a wide range of social service settings. Most graduates work in child welfare, family service, mental health or health agencies. The bachelor's degree from a Council on Social Work Education (CSWE) accredited program qualifies graduates to take the licensed social worker (LSW) examination as stipulated by the Illinois Department of Professional Regulation. In addition, many graduate social work programs offer advanced standing to students with a bachelor's degree in social work from a CSWEaccredited program.

\section*{Degree Program}

Bachelor of Social Work

\section*{Program Overview and General Department Information}

\section*{Admission}

Beginning in Fall 2014, admission to the social work program is competitive. Students begin in the major during the fall semester of their junior year, and students must apply for admission by the end of January of the preceding spring semester (e.G. for Fall 2014 admission, students need to apply in January of 2014). To be admitted to the BSW program, students must submit through the SIUE Office of Academic Counseling and Advising the following information after two semesters of full-time college or university enrollment:
■ an application to SIUE certifying their admission to the University;
\(\square\) an academic transcript certifying that the student has a grade point average of 2.5 or better at the time of application for admission to the BSW Program;

■ a referral to the BSW Program by his or her advisor in the SIUE Office of Academic Counseling and Advising.
In addition, students transferring to SIUE may apply for direct declaration when applying for
admission to SIUE, but must go through the regular admissions process described herein.
To be eligible for admission to the BSW program, applicants must submit the following materials to the Social Work Department by the end of January of the spring semester that precedes their junior year fall enrollment:
■ An application for the B.S.W. Program form which includes; a) general information about the student, and b) information related to prerequisites taken and GPA (minimum of 2.5).
- A 300 word personal statement that describes his/her interest in the program and the Social Work profession.
■ A signed statement that s /he has read and agrees to abide by the National Association of Social Workers (NASW) Code of Ethics and the SIUE Social Work Department BSW Behavior Policy.
Students applying for entry into the program must:

■ have a (GPA) of at least 2.5 and have completed the equivalent ( 30 hours) of two full-time semesters at any college or university.
- demonstrate written proficiency in English by completing English Comp I and II with a grade of C or better.
- demonstrate the ability to communicate clearly and effectively by completing a applied communication studies course in interpersonal communication with a grade of C or better.
■ read, sign and agree to abide by the National Association of Social Workers (NASW) Code of Ethics and the SIUE Social Work Department Standards for Social Work Education.

Application materials are reviewed for approval or denial by the BSW Admissions Committee, composed of the Director of the BSW Program and two members of the BSW Curriculum Policy and Planning Committee. Students who plan to enter the program are expected to meet with the Director of the BSW program prior to admission into the Program.
Decisions regarding admission to the major are made by the end of February, and students admitted will be allowed to declare as social work majors. Should spaces within the Program remain after this date, the program will continue to consider applications until spaces are filled.
Only students who have been admitted into the Program will be enrolled in the first major
semester courses (SOCW 201, SOCW 211, and SOCW 302) in the fall term.
It is important that students become familiar with sequencing and required courses for this major as well as the required supporting courses offered which are listed in the Undergraduate Catalog and the BSW Handbook.

\section*{Retention}
- maintain overall and Social Work GPAs of 2.5;

■ complete all required social work courses and social work electives with a grade of C or above;
■ demonstrate professional behavior consistent with the National Association of Social Workers Code of Ethics and the SIUE Social Work Department Standards for Social Work Education.
Grade point averages are reviewed by the Director of the BSW Program following each semester. Students who fall below the required 2.5 GPA and/or are experiencing issues in professional development will be placed on department probation for one semester or may be terminated from the program. During their probationary period, students must meet regularly with their department advisor to monitor their progress and receive suggestions and advice toward regaining the required 2.5 GPA. Students who do not attain the required GPA of 2.5 or do not resolve their professional development issues following this probationary period may be dropped from the major and withdrawn from all social work courses. Students may re-apply to the social work program once their GPA has again reached the required 2.5 if they were dropped for academic reasons.

\section*{Transfer}

Transfer course credit from other CSWEaccredited programs will be considered for acceptance toward the BSW degree from SIUE. No course credit will be awarded for work or life experience.

\section*{General Education Requirements}

University general education requirements are outlined in the General Education section of this catalog and included in the sample curriculum outline. While fulfilling University general education requirements all social work majors are required to complete the following:

\section*{Foundations}

ENG 101 ENG 102 RA 101 ACS 101 QR 101
\begin{tabular}{lllll} 
Breadth-Humanities & \multicolumn{3}{l}{ Degree Requirements } \\
ENG 201 & SOCW 200 & SOCW 201 & SOCW 211 & SOCW 301 \\
Breadth-Life Science & SOCW 302 & SOCW 303 & SOCW 315 & SOCW 316 \\
BIOL 111 & SOCW 390 & SOCW 400 & SOCW 401 & SOCW 480 \\
Breadth-Social Sciences & SOCW 481 & SOCW 482 & SOCW 483 & BIOL 111 \\
ANTH 111B & ECON 111 or 112 & HIST 201 & Social Work Electives (9 hours) \\
POLS 112 & PSYC 111 & PSYC 206 & \begin{tabular}{l} 
Note: No academic minor is required for social \\
work majors; however, a minor in the social or
\end{tabular} \\
& & \begin{tabular}{l} 
behavioral sciences is strongly encouraged.
\end{tabular}
\end{tabular}
Degree Requirements
ectives (9 hours)Note: No academic minor is required for socialwork majors; however, a minor in the social orbehavioral sciences is strongly encouraged.

\section*{Sample Curriculum for the Bachelor of Social Work}
Fall Semester
Year 1
BIOL 111 - Contemporary Biology (BLS) ..... 3
ENG 101 -English Composition I ..... 3
PSYC 111 - Introduction to Psychology (BSS) ..... 3
ACS 101 or 103-Oral Expression ..... 3
QR 101, MATH 150 or Higher ..... 3
Total ..... 15
Year 2
HIST 201 - U.S. History Since 1877 (BSS) ..... 3
PSYC 206 - Social Psychology (BSS). ..... 3
Physical Science (BPS) with a lab (EL) ..... 4
Foreign Language 1010r BICS Elective ..... 4
Total ..... 14
Year 3
SOCW 200 - Foundations of Social Work I ..... 4
SOCW 201 - Foundations of Social Work II ..... 3
SOCW 211 - Micro Skills of Counseling ..... 3
SOCW 302 - Human Behavior in Social Environments I ..... 3
ENG 201 - Intermediate Composition (BHUM) ..... 3
Total ..... 16
Year 4
SOCW 400 - Social Work Practice III ..... 3
SOCW 480 - Research Methods in Social Work ..... 3
SOCW 482 - Field Instruction I ..... 4
SOCW Elective ..... 3
Interdisciplinary Studies (IS) ..... 3
Total ..... 16
Spring Semester
Year 1
ANTH 111B - Human Culture \& Communication (BSS, EGC, EUSC). ..... 3
ECON 111 - Principles of Macroeconomics (BSS) ..... 3
ENG 102 - English Composition II ..... 3
RA 101 - Reasoning \& Argumentation .....  3
POLS 112 - American National Government (BSS) .....  3
Total ..... 15
Year 2
PHIL course (BHUM) ..... 3
Fine \& Performing Arts (BFPA) ..... 3
Lab (EL)/Health Experience (EH) ..... 3
Foreign Language 102/Elective ..... 4
Total ..... 13
Year 3
SOCW 301 - Introduction to Social Welfare Policy. ..... 3
SOCW 303 - Human Behavior in Social Environments II. .....  3
SOCW 315 - Social Work Practice I ..... 3
SOCW 316 - Social Work Practice II ..... 3
SOCW 390 - Diversity \& Issues of Social and Economic Justice. 3
Total ..... 15
Year 4
SOCW 401 - Social Welfare Policy Analysis ..... 3
SOCW 481 - Statistics for Social Work ..... 3
SOCW 483 - Field Instruction II ..... 4
SOCW Elective .....  3
SOCW Elective ..... 3
Total ..... 16

\section*{Graduation Requirements}

All undergraduate majors in social work are required to complete a senior assignment as part of the BSW Program and the University's assessment process. The Social Work senior assignment is composed of two parts: a written case study and a final evaluation of students' achievement of learning objectives completed by their field instructors.

\section*{Sociology and Criminal Justice Studies}

\section*{Professors}

Cobb, Denise, Ph.D., 2003, Tulane University
Dirks-Linhorst, P. Ann, Ph.D., 2003, University of Missouri-St. Louis
Finkelstein, Marv, Ph.D., 1984, Michigan State University
Kauzlarich, David, Ph.D., 1994, Western Michigan University
Markowitz, Linda, Ph.D., 1995, University of Arizona
Oberweis, Trish, Ph.D., 1999, Arizona State University
Petrocelli, Matt, Ph.D., 1997, Arizona State University

\section*{Associate Professors}

Cannon, Kevin, Ph.D., 2001, University of Nebraska at Omaha
Frey-Spurlock, Connie, Ph.D., 2007, University of Nebraska, Lincoln
Hedley, Mark, Ph.D., 1994, University of Arizona
Heil, Erin, Ph.D. 2008, University of Illinois at Chicago
Maatita, Florence, Ph.D., 2003, University of Connecticut
Mares, Dennis, Ph.D., 2004, University of Missouri-St. Louis

\section*{Assistant Professors}

Cox, Kiana, PhD, 2014, University of Illinois at Chicago
Murphy-McHenry, Erin, Ph.D. , 2009, University of Illinois at Urbana-Champaign
Spurgas, Alyson, Ph.D., 2014,
City University of New York
Weissinger, Sandra, Ph.D., 2010, University of Illinois at Urbana-Champaign

\section*{Instructor}

Stygar, Elizabeth, MA, 2008, Southern Illinois University Edwardsville

\section*{Degree Programs}

Bachelor of Arts, Criminal Justice Studies
Bachelor of Science, Criminal Justice Studies
Bachelor of Arts, Sociology
Bachelor of Science, Sociology
Specialization available in Employee Relations

\section*{Criminal Justice Studies}

Peck Hall, Room 1230
siue.edu/sociology/Undergraduate/criminal_ justice_undergrad.shtml
The B.A./B.S. degree in criminal justice studies at SIUE is a multidisciplinary degree program with a strong academic foundation in the liberal arts. Among the general topics studied are theories of crime and delinquency; the origins and development of criminal law and procedure; the functions and operations of criminal justice agencies in America, including the criminal justice response to juvenile offenders; the prevention of crime and delinquency; privatization in corrections and policing; the nature, meaning, and purpose of criminal punishment; the nature and impact of criminal justice policy; and the relationship between criminal justice and human diversity.
The criminal justice major prepares students for a broad range of career opportunities, including, but not limited to, work in law enforcement and security, probation and parole, the court system, and corrections. Experiential learning is an important component of the program, and all students are required to complete an internship with an organization or agency involved with some aspect of criminal justice. The internship could be with a public agency such as a police department, state or federal prison, local jail, circuit and municipal courts, or prosecutor's office, or with a private organization delivering products or services to the criminal justice system.
During the internship, all students complete a reflective essay on the relationship between the internship experience and their coursework in criminal justice studies.

\section*{Statement of Major Goals}

■ Ability to effectively communicate orally and in writing
- Ability to understand, use, and apply theories of crime and justice
■ Ability to define a problem, generate appropriate data, and propose logical solutions
- Ability to search and use criminal justice literature
- Ability to understand diversity and its impact on criminal justice and society

\section*{Career Opportunities}

In recent years, career opportunities in fields linked with criminal justice have shown steady growth. While some jobs do not require a university degree, many others do, and a degree almost always improves a person's chances for promotions and other career advancement. Because the criminal justice program at SIUE rests on a strong academic foundation, a wide variety of occupations will be accessible to its graduates. These include court administration, probation and parole, research and planning, community-based prevention and treatment, and working with juveniles and other special populations of offenders.
Criminal justice majors also are hired by law firms as researchers, and by corporations that maintain internal security services or provide security services to clients. The many state and federal agencies involved in law enforcement and crime prevention also hire criminal justice majors as front-line officers as well as in the areas of administration, research, planning, and human resources. Newer areas of work such as victim-witness advocacy, dispute resolution, and neighborhood/ community justice centers also provide employment opportunities for criminal justice majors.

\section*{General Education Requirements}

University general education requirements are outlined in the General Education section of this catalog and included in the sample curriculum outline. Students electing to complete a Bachelor of Arts degree must complete a minimum of one year of foreign language as well as 6 courses in fine \& performing arts or humanities.

Degree Requirements
\begin{tabular}{llrr} 
CJ 111 & CJ 202 & CJ 206 & CJ 208 \\
CJ 272 & CJ 302 & CJ 303 & CJ 366 \\
CJ 488 & CJ Electives (15 hrs) &
\end{tabular}

The core of the criminal justice major consists of 27 hours of coursework required of all students, plus 15 hours of criminal justice electives. Students are encouraged to complete CJ 111, 202, and 208 with a C or better grade before enrolling in any 300 - or 400 -level CJ course. Students are also encouraged to complete CJ 302 and 303 before enrolling in 400 -level CJ courses.

Completion of at least 18 hours of criminal justice courses work is required for enrollment in the supervised internship. Criminal justice majors may count up to 6 hours of 300 - or 400 -level courses in other programs with permission of the director of criminal justice studies.

\section*{Program Overview Admission}

\section*{Admission}
to the criminal justice major is competitive, and students must meet the following conditions to be considered for admission:

■ completion of all general education skills courses with grades of C or better
- completion of 15 hours of introductory courses with grades of C or better
- completion of the following courses with grades of C or better: SOC 111, POLS 112, and CJ 111, or their equivalents

■ completion of the Pre-CJ Program, described below

■ a cumulative GPA of 2.75 .
The pre-CJ program is a two-semester introduction to the major in criminal justice studies and includes one-on-one contact with criminal justice advisors. All students planning to major in criminal justice studies at SIUE must enroll in the pre-CJ program and complete its requirements before they are eligible to apply for admission to the major. The director of criminal justice studies admits students to the pre-CJ program.
In addition to completing CJ 111 and other course prerequisites for the major, students must take CJ 202 and CJ 208 and at least one other 200-level CJ course during the two-semester pre-CJ program. They also are encouraged to join the Criminal Justice Club, and to participate in other activities that relate to the major. The pre-CJ program is waived for transfer students who have already completed the relevant courses or have received an associate's degree in criminal justice or equivalent field from a community college. Application for admission to the pre-CJ program must be made in person at the CJ director's office, currently Peck Hall 1206. Admission to the pre-CJ program is not a guarantee of acceptance into the major in criminal justice studies.

Applications will be reviewed by an admissions committee composed of the director of criminal justice studies and two members of the fulltime criminal justice faculty. Among the factors considered will be:
■ overall GPA at SIUE
- GPA in the pre-CJ program

■ current or previous employment in criminal justice field
■ previous coursework in criminal justice at other institutions
- letters of recommendation from past or present instructors

■ other considerations that support the University's Long-term Goal of Engaged Students and Capable Graduates

\section*{Retention}

Students majoring in criminal justice are required to maintain a cumulative average of \(C\) or better in their criminal justice coursework.

\section*{Transfer}

Ordinarily, up to 12 semester hours of Criminal Justice transfer credit with C or better grades
may be accepted. Up to 15 hours of transfer credit may be accepted from Illinois universities and community colleges, as recommended under the Illinois Articulation Agreement. Additional transfer hours may be used if approved by criminal justice advisors.

\section*{Senior Assignment}

As part of the University's assessment program, all undergraduate majors in criminal justice are required to complete a senior assignment. This will occur during completion of the Supervised Internship (CJ 488).

\section*{Sample Curriculum for the Bachelor of Science in Criminal Justice Studies}
Fall Semester
Year 1
SOC 111 - Introduction to Sociology (BSS) ..... 3
ANTH 111B - Human Culture and Communication(BSS, EGC, EUSC) (recom)3
ENG 101 - English Composition I ..... 3
QR 101, MATH 150 or Higher ..... 3
ACS 101 or 103-Oral Expression ..... 3
Total ..... 15
Year 2
CJ 202 - Introduction to Corrections .....  3
CJ 208 - Introduction to Law Enforcement ..... 3
POLS 112 - American National Government (BSS) .....  3
Information \& Communication in Society (BICS) ..... 3
Life Science (BLS). ..... 3
Total ..... 15
Year 3
CJ 302 - Research Methods in CJ. ..... 3
CJ 366 - Race and Gender in CJ ..... 3
CJ-Elective (200 level) ..... 3
Life, Physical or Social Science with a lab (EL) ..... 3
Elective ..... 3
Elective ..... 3
Total ..... 18
Year 4
CJ Elective ..... 3
CJ Elective ..... 3
Elective ..... 3
Elective ..... 3
Elective ..... 3
Total ..... 15
Spring Semester
Year 1
CJ 111 Intro to Criminal Justice ..... 3
ENG 102 - English Composition II. ..... 3
RA 101 - Reasoning \& Argumentation ..... 3
Fine \& Performing Arts (BFPA) ..... 3
Humanities (BHUM) ..... 3
Total ..... 15
Year 2
CJ/SOC 272 - Criminology (BSS) ..... 3
CJ 206 - Criminal Law ..... 3
Physical Science (BPS) ..... 3
Health Experience (EH). ..... 3
Life, Physical or Social Science with a lab (EL) ..... 3
Total ..... 15
Year 3
CJ 303 -Data Analysis in CJ or SOC 303 Stats with Computer Apps ..... 3
CJ -Elective ( 200 level recommended) ..... 3
CJ-Elective ..... 3
Interdisciplinary Studies (IS) ..... 3
Elective ..... 3
Total ..... 15
Year 4
CJ 488 - Supervised Internship ..... 3
Elective ..... 3
Elective ..... 3
Elective ..... 3
Total ..... 12
Students wishing to obtain a Bachelor of Arts degree may do so by adding one year of foreign language as well as 4 additional courses in fine and performing arts or humanities.

\section*{Criminal Justice Minor Requirements}

For a minor in criminal justice, students are required to complete at least 21 semester hours of CJ electives. Minors must maintain an average of C or better in their criminal justice courses. Ordinarily, minors do not take CJ 302, 303, or 488. Up to 9 hours of transfer credit may be accepted toward the minor.

\section*{Graduation}

A cumulative grade point average of 2.0 or above in criminal justice coursework is required for graduation. Students must pass all required courses with a grade of C or better. A minimum of 15 semester hours of upper-level courses is required for graduation.

\section*{Sociology}

\author{
Peck Hall, Room 1230 \\ siue.edu/sociology
}

\section*{Program Description}

Sociology is the scientific study of human groups and relationships. A major purpose of the discipline is to find efficient and effective ways to understand and improve them. Sociologists study human values, customs, leadership, and cooperation and conflict in every kind and size of group including families, schools, religions, corporations, the economy, government, cities, and societies. Sociologists use questionnaire surveys, participant observation, government statistics, and computer simulations to find patterns and general principles that can help solve problems of group living ranging from infant mortality and juvenile delinquency to world population growth and migration. Sociologists investigate causes of crime and deviance; racial, gender, and ethnic conflict; poverty; social inequality; health care; globalization and workplace change. Applied sociologists use sociological insights to identify and solve practical problems in group living. Many students majoring in other fields find sociology courses relevant to their studies.

\section*{Statement of Major Goals}

■ The undergraduate major in sociology seeks to foster the development of the following knowledge and skills while encouraging students to become well-informed, active citizens who appreciate creativity and diversity.
■ ability to understand, use, and apply social theory
■ ability to understand, use, and apply social research methods
■ ability to effectively communicate orally and in writing
■ ability to search and use relevant sociological literature
\(\square\) ability to understand diversity and its impact on society, social theory, and social research
■ ability to define a problem, generate appropriate sociological data, and propose logical solutions

\section*{Career Opportunities}

Many employers emphasize that a good liberal arts education is an excellent foundation for specialized skills that employees can learn on the job. Industry, government , and private service agencies often prefer a major in one of the social sciences. While professional training in sociology is primarily associated with advanced degrees, there are many employment opportunities for those with a liberal arts major in sociology. The specialization in Employment Relations (see below) adds occupationally relevant training to the liberal arts program in sociology. In addition to providing classroom and experiential training in Employment Relations, the concentration helps develop marketable research and communication skills. The required internship helps create job opportunities and provides training and research skills that make students more attractive to potential employers.
Details about career opportunities for sociology graduates are available in the departmental office, room 1230, Peck Hall. Interested students may also contact the chair or undergraduate program director by calling 618-650-3713.

\section*{Program Overview}

\section*{Admission}

The admission requirements for a bachelor of arts or bachelor of science degree in sociology includes admission to the University and successful completion of high school coursespecific requirements.

Students must normally declare a major in sociology no later than halfway through their junior year (i.e. before the completion of 75 semester credits). Students who declare a major later than this explicitly understand and agree that they will not be able to graduate sooner than the end of the third semester of full-time coursework following declaration.

\section*{Retention}

Students majoring in sociology are required to maintain a cumulative average of 2.0 (C) or above in their sociology courses.

\section*{Transfer}

Ordinarily, up to 15 semester hours of transfer credit in sociology may be accepted. No more than nine semester hours from community colleges will be accepted for credit toward the major. Transfer credit will be accepted only if the course grade is C or above. Social Work courses do not count toward the 36 semester hours required for the major.

\section*{Minor Requirement}

Students seeking a bachelor of arts or bachelor of science degree in sociology must, in consultation with their advisor, select and complete a minor in another department. This minor must be completed in order to achieve the sociology degree.

\section*{Senior Assignment}

As part of the University's assessment program, all undergraduate majors in sociology are required to complete a senior assignment, either Sociology 433 or Sociology 495. General majors (those not enrolled in the specialization in Employment Relations) must take Sociology 495 (Senior Seminar) after completing 21 semester hours of sociology. Sociology 495 usually is offered both in spring and fall semesters, but not in the summer term.

Before enrolling in Sociology 495, all students must complete a sequence consisting of Sociology 301 (Theory), Sociology 302 (Methods), Sociology 303 (Statistics) and Sociology 493 (Sociological Research Workshop). Students should begin this sequence as soon as possible after declaring the major.

Students enrolled in Employment Relations are required to take Sociology 433 (Internship) as their senior assignment. Such students are required to complete the written and oral components of the senior assignment in their final spring term. A grade of C or better on the senior assignment is required for graduation. More information about the senior assignment in Sociology may be obtained from the departmental office, Peck Hall, room 1230.

\section*{General Education Requirements}

University general education requirements are outlined in the General Education section of this catalog and included in the sample curriculum outline. Students electing to complete a Bachelor
of Arts degree must complete a minimum of one year of foreign language as well as 6 courses in fine and performing arts or humanities.

\section*{Degree Requirements}
\begin{tabular}{llc} 
SOC 111 & SOC 301 & SOC 302 \\
SOC 493 & SOC 303 \\
SOC 495 & Sociology Electives (18 hours) \\
Students must also declare and complete a minor in another \\
department.
\end{tabular} department.

\section*{Specialization in Employment Relations}

The specialization option in Employment Relations is designed to prepare students to apply sociological knowledge to the practical problems of the workplace. Fundamental changes in work and industry have intensified employer demands for broadly skilled professionals, supervisors, administrators, coordinators and consultants capable of critically evaluating, planning and implementing workplace changes.

In addition, Employment Relations places great emphasis on the acquisition of practical knowledge through case study analyses and an internship (SOC 433) in an actual employment setting. As interns, students have the opportunity to apply course concepts, ideas, and methods in a supervised employment context. As the capstone learning experience in developing concrete skills and abilities, the internship may provide students with valuable contacts and networks that will be of use to them in achieving their professional and career goals. For more information, please contact the Employment Relations advisor in Peck Hall, room 0206.

Students with an interest in Employment Relations will complete the following:
SOC \(111 \quad\) SOC \(301 \quad\) SOC \(302 \quad\) SOC 303
SOC \(338 \quad\) SOC \(431 \quad\) SOC 433
Sociology Electives ( \(9-15\) hours)
Approved Non-Sociology Electives ( 9 -15 hours)
Students must also declare and complete a minor in another
department.

\section*{Sample Curriculum for the Bachelor of Science in Sociology}

\section*{Year 1}

SOC 111 - Introduction to Sociology (BSS) . . . . . . . . . . . . . . . . . 3
ANTH 111B-Human Culture \& Communication (BSS, EGC, EUSC) (Recommended)

QR 101, MATH 150 or Higher
ENG 101 -English Composition I ..... 3
ACS 101 or 103-Oral Expression ..... 3
Total ..... 15
Spring Semester
Year 1
ENG 102 - English Composition II. ..... 3
RA 101 - Reasoning \& Argumentation ..... 3
Fine \& Performing Arts (BFPA) ..... 3
Humanities (BHUM) ..... 3
Information \& Communication in Society (BICS) ..... 3
Total ..... 15
Sample Curriculum for the Bachelor of Science in Sociology cont.
Year 2
SOC Elective. ..... 3
Life Science (BLS) with a lab (EL) ..... 3
Minor Elective .....  3
Life, Physical or Social Science with a lab (EL) ..... 3
Minor Elective ..... 3
Total ..... 15
Year 3 Year 3
SOC Elective (SS) ..... 3
SOC Elective (SS) ..... 3
Interdisciplinary Studies (IS) ..... 3
Minor Elective ..... 3
Minor Elective ..... 3Total15
Spring Semester
Year 2
SOC Elective (SS).3
Physical Science (BPS) ..... 3
Health Experience (EH) ..... 3
Minor Elective ..... 3
Minor Elective
15
Total
SOC 301 - Survey of Theory ..... 3
SOC 302-Social Research Methods (BSS) ..... 3
SOC Elective ..... 3
Elective ..... 3
Elective ..... 3
Total ..... 15
Year 4 Year 4
SOC 493-Sociological Research Workshop .....  3
SOC 303 - Stats with Computer Applications3
SOC Elective.
3
SOC 495-Senior Assignment Seminar 3ElectiveElective33 Elective3
Elective ..... 3 ..... 3
Total ElectivStudents wishing to obtain a Bachelor of Arts degree may do so by adding one year of foreign language as well as 4 additional courses in fine andperforming arts or humanities.
Sample Curriculum for the Bachelor of Science in Sociology - Specialization in Employment Relations
Fall Semester Spring Semester
Year 1
SOC 111 - Introduction to Sociology (BSS) ..... 3
ENG 101 -English Composition I ..... 3
Humanities (BHUM)/Global Cultures (EGC) ..... 3
Information \& Communication in Society (BICS) ..... 3
Total ..... 15
Year 2
SOC Elective. ..... 3
Physical Science (BPS) ..... 3
Life, Physical or Social Science with a lab (EL) ..... 3
QR 101, MATH 150 or Higher ..... 3
Minor Elective ..... 3
Total ..... 15
Year 3
SOC 301 - Survey of Theory (BSS) ..... 3
Interdisciplinary Studies (IS) ..... 3
Minor Elective ..... 3
Minor Elective ..... 3
Total ..... 15
Year 1
ENG 102 -English Composition II. ..... 3
ACS 101 or 103-Oral Expression ..... 3
SOC Elective. ..... 3
Life Science (BLS). ..... 3
RA 101 - Reasoning \& Argumentation ..... 3
Total ..... 15
Year 2
SOC 304 - Race Relations (BSS, EUSC) or SOC 308 - Women, Gender, \& Society (BSS, EUSC) (Recommended) ..... 3
SOC Elective. ..... 3
Minor Elective ..... 3
Health Experience (EH) .....  3
Life, Physical or Social Science with a lab (EL) ..... 3
Total ..... 15
Year 3
SOC 302 - Social Research Methods (BSS) ..... 3
SOC 303 - Statistics w/Computer Apps ..... 3
Minor Elective .....  3
Approved Non-Sociology Elective ..... 3
Approved Non-Sociology Elective ..... 3
Total ..... 15

\title{
Sample Curriculum for the Bachelor of Science in Sociology - Specialization in Employment Relations cont.
}

Fall Semester
Year 4
SOC 338 - Industry \& Society (BSS). . . . . . . . . . . . . . . . . . . . . . . 3
SOC Elective. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
SOC Elective. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Distribution Fine Arts \& Humanities . . . . . . . . . . . . . . . . . . . . . . . 3
Approved Non-Sociology Elective . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total ................................................................ . . 15

Spring Semester

\section*{Year 4}

SOC 431 - Employment \& Workplace Change (BSS) . . . . . . . . . 3
SOC 433 - Internship in Employment Relations . . . . . . . . . . . . . 3
Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total ............................................................... . . . 15
Students pursuing a Bachelor of Arts degree may do so by adding one year of the same foreign language as well as 4 additional courses in fine and performing arts or humanities.

\section*{Sociology Minor Requirements}

For a minor in sociology, students are required to complete 21 semester hours of sociology electives, which may include courses in other departments that are cross-listed with sociology. Sociology minors must maintain an average of 2.0 or above in their sociology courses. Ordinarily, nine semester hours of transfer credit may be counted toward the sociology minor. Transfer credit will count toward the sociology minor only when the grade is C or above. Social work courses do not count toward the 21 semester hours of sociology credits required for the minor.

\section*{Graduation}

A cumulative grade point average of 2.0 or above in sociology courses is required for graduation, and students must achieve at least a C grade in all required sociology courses.

\section*{Theater and Dance}

Dunham Hall, Room 1031
siue.edu/artsandsciences/theater

\section*{Professors}

Jarrell, J. Calvin, M.F.A., 1980, University of Oklahoma

\section*{Associate Professors}

Cocuzza, Peter, M.F.A., 1986, Ohio University
Hanson, Laura M., Ph.D., 2001, New York University
Harper, Chuck; M.F.A., 1997, University of Washington
Schmitz, Johanna, Ph.D., 2001, University of California, Davis
Shaul, Kerry, M.F.A., 1973, Southern Methodist University
Wulfsong, James, (Chair), M.F.A., 1998, University of Minnesota, Twin Cities

\section*{Assistant Professors}

Bentley, Kathryn, M.F.A., 2006, Lindenwood University

\section*{Instructors}

Best-Kinscherff, Kristin, M.F.A., 2006, University of Iowa
Bozark, Kim, M.A., 2006, Webster University Goldston, Valerie, M.F.A., 1984, University of Wisconsin, Madison Hagan, Lana, M.A., 1996, Roosevelt University Reed, Nina, B.F.A., 1989, Webster University
Speidel, Roger, M.F.A., 2000, University of South Dakota

\section*{Description of Department and Programs}

The Department of Theater and Dance provides instruction and practical performance experience in all phases of theater and dance production for the stage. The department enhances the liberal arts experience of students through general education courses and through main stage and student theater and dance productions. Students majoring in theater and dance may select from one of five specialization programs: performance, design/ technical theater, dance, theater history/ literature/criticism or theater education.

\section*{Career Opportunities}

An undergraduate degree in theater or dance provides a student with pre-professional theater and dance training in acting, directing, dance, choreography, technical production, and design enabling them to pursue one of many careers directly and indirectly associated with the arts. Theater History/Literature/Criticism students may find careers as a dramaturg, playwright, or critic. With a specialization in Theater Education, students can prepare for a career in teaching in middle and secondary schools.

\section*{Degree Programs}

Bachelor of Arts, Theater \& Dance
Specializations available in the following Dance
Design/Technical
History/Literature/Criticism
Performance
Bachelor of Science, Theater \& Dance
Specializations available in the following Dance
Design/Technical
History/Literature/Criticism
Performance
Teacher Licensure (6-12) Program is available

\section*{Program Overview and General Department Information}

Admission Students seeking admission to the Theater and Dance Department must first be admitted to the University by contacting the Admissions Office. Students who are considering theater and dance as a major should call or visit the department - Dunham Hall, room 1031, telephone (618) 650-2773 - as early as possible. They will be referred to a faculty advisor who will provide them more information about the curricula and the department as well as help them plan an academic program. Early advisement will enable students to complete their programs with minimal conflicts and within the shortest possible time.
In order to be admitted into the teacher licensure program, students must have:
- Received a grade of C or above in ENG 101 and ENG 102;
■ Completed 43 semester hours of course credit and have a cumulative grade point average of 2.5 or higher (this includes work at other institutions);
■ Successfully completed the introductory course CI 200;
- Passed the ILTS Test of Academic Proficiency (formerly the Basic Skills Test) or the ACT equivalent with the approved substitution application. Information about the ILTS test is available at il.nesinc.com.

\section*{Retention}

Students in the theater and dance major or minor must maintain at least a 2.0 cumulative GPA and must complete all required theater and dance courses with a grade of C or above to remain in the program. Students may attempt any required
theater and dance course only twice (complete a course and receive a grade). If a student fails to achieve a C grade or better in a required course after a second attempt, he/she will be dropped from the program. Students dropped from the major or minor may direct a written appeal for reinstatement to the departmental advisory committee for readmission. Students must complete a department senior assessment class (THEA 499a, b, c, d or DANC 499). Details of this requirement may be obtained from the student's respective Area Head. In addition to departmental requirements, students must complete all University requirements for graduation.

\section*{Transfer}

Transfer students should follow the same admissions procedure as outlined above. In addition, they should contact the chair of the department prior to their admission so they may be assigned a mentor within their respective area of study. A minimum grade of C is required for all transfer classes applied to the major or minor requirements.

\section*{General Education Requirements for the Major}

University general education requirements are outlined in the General Education section of this catalog and added in the curriculum guides listed below.

\section*{Degree Requirements}

Theater Major Core Classes - 24 credits - All theater and dance majors should complete the core classes before taking any 300-400 level classes in their specializations. Dance majors have additional core options (see curriculum guide in dance).
\begin{tabular}{lll} 
THEA 112a & THEA 114a & THEA 114b THEA 201a \\
THEA 201b & THEA 220 & THEA 150, 160, or 170 \\
DANC 114 & &
\end{tabular}

\section*{Dance Specialization}

Requirements - 46 credits
Completion of the Theater Core classes plus:
ART 225a or 225b
DANC 210a or 211a
DANC 230, 240, KIN 315, or BIOL 240a
DANC 220, 310a, 310b, 311a, 311b, 420a, 420b, 433, 499
DANC 410a, 410b, 411a, 411b (Choose one)
MUS 357a or 357b
Four (4) semesters of THEA 199 practicum

\author{
Design/Technical Specialization \\ Requirements - 51 credits \\ Completion of the Theater Core classes plus: \\ THEA 150, 160, 170, 250 \\ THEA 350, 360, 370 (take any 2 ) \\ Electives - THEA 265, 350, 355, 360, 370, 375, 450, 460, 470, 475, 480, 482 (take any 9 credits) \\ THEA 499B \\ Four (4) semesters of THEA 199 practicum \\ \section*{Performance Specialization Requirements - \\ \\ 51 credits} \\ Completion of the Theater Core classes plus: \\ THEA 112B, 215A, 310A, 310B, 312, 410, 499A \\ THEA 210A, 210B, 215B, 230, 235, 265, 315A, 315B, 412, (Take 6 credits) \\ Four (4) semesters of THEA 199 Practicum \\ History/Literature/Criticism Specialization 54 credits \\ Completion of the Core plus: \\ Choose one (ENG 307, ENG 471)
}

THEA 499C
Four semesters of THEA 199 practicum
Electives - Select twelve (12) credits in any THEA or DANC class with advisor consent

\section*{Theater Education Specialization}

Completion of the Core plus:
Completion of Teacher Licensure (6-12) Requirements
CIED 100, 315A, 315B, 440, 352
EPFR 315,320
SPE 400
Theater Education Requirements
THEA 160, 170, 265, 298, 398, (309 or 312)
Four (4) semesters of THEA 199 practicum
Senior Assignment
All theater and dance majors must complete the Senior Assignment Capstone Project. Specific requirements for each specialization can be found in the Department of Theater and Dance's Student Handbook. Please contact the Theater and Dance Office to obtain a copy.

\section*{Sample Curriculum for the Bachelor of Arts in Theater and Dance: Dance}
Fall SemesterYear 1
DANC 114 -Movement Fundamentals ..... 3
THEA 112a - Acting I - Intro to Acting ..... 3
ACS 101 or 103-Oral Expression ..... 3
ENG 101 -Composition ..... 3
Foreign Language 101 (BICS) ..... 4
Total ..... 16
Year 2
DANC 210a - Beginning Modern Dance Techniques or DANC 211a-Beginning Ballet ..... 2
DANC 240 - History of Dance. ..... 3
THEA 199 - Theater Production ..... 0
RA 101 - Reasoning \& Argumentation. ..... 3
KIN 315 or BIOL 240a (recommended) .....  3
Life Science (BLS). ..... 3
Social Science (BSS) ..... 3
Total ..... 17
Year 3
DANC 220 - Rhythmic Structure .....  2
DANC 230 - Intro to Laban Movement. .....  2
DANC 310a - Intermediate Modern Dance .....  3
DANC 311a-Intermediate Ballet Techniques .....  2
United States Culture (EUSC). .....  3
Health Experience (EH). ..... 3
Total ..... 15
Year 4
DANC 410a 410b, 411a, or 411b (select one) .....  2
DANC 420a- Dance Composition I. ..... 2
DANC 433 - Dance Pedagogy \& Methodology .....  2
THEA 199 - Theater Production Elective. .....  0
THEA 201A - Core: History of the Theater ..... 3
THEA 201B - Core: History of the Theater. ..... 3
Total ..... 12
Spring Semester
Year 1
THEA 114a - Forms of Dramatic Action ..... 3
THEA 150, 160, or 170 (select one) ..... 3
Humanities (BHUM) ..... 3
ENG 102 - Composition ..... 3
Foreign Language 102 (EGC) ..... 4
Total ..... 16
Year 2
THEA 199 - Theater Production ..... 0
THEA 114b - Forms of Dramatic Action ..... 3
THEA 220 - Directing for the Stage ..... 3
ART 225A or ART 225B. ..... 3
Elective ..... 2
QR 101, MATH 150 or Higher .....  3
Total ..... 14
Year 3
DANC 310b - Intermediate Modern Dance ..... 2
DANC 311b - Intermediate Ballet Techniques . ..... 2
THEA199 - Theater Production ..... 0
Interdisciplinary Studies (IS) ..... 3
Fine \& Performing Arts (BFPA) ..... 3
Physical Science (BPS). ..... 3
Lab Experience (EL) ..... 3
Total ..... 16
Year 4
DANC 420b - Dance Composition II ..... 2
DANC 499 - Senior Assignment ..... 3
Elective ..... 3
Elective ..... 3
Elective ..... 3
Total ..... 14
Sample Curriculum for the Bachelor of Arts in Theater and Dance: Design/ Technical Theater
Fall Semester
Year 1
THEA 114a - Forms of Dramatic Action ..... 3
THEA 150, 160, or 170 (Introductory Tech Courses) ..... 3
DANC 114 - Movement Fundamentals ..... 3
ACS 101 or 103-Oral Expression ..... 3
ENG 101 -English Composition I ..... 3
Total ..... 15
Year 2
THEA 150, 160, or 170 (Not already taken) ..... 3
THEA 201a - History of the Theater ..... 3
THEA 255 - Scene Painting (or THEA 265) ..... 2
RA 101 - Reasoning \& Argumentation ..... 3
Foreign Language 101 (BICS) ..... 4
QR 101, MATH 150 or Higher ..... 3
Total ..... 18
Year 3
THEA 265 - Stage Makeup (or THEA 255) ..... 2
THEA 370 - Lighting Design ..... 3
ART 225a - History of World Art (BFPA, EGC) ..... 3
Social Science (BSS)/United States Cultures (EUSC) .....  3
Humanities (BHUM) ..... 3
THEA 199 - Theater Production ..... 0
Total ..... 14
Year 4
THEA 450, 460, 470, 475 - Design Projects ..... 3
THEA 480 or 482 - Computers for Theater ..... 3
THEA 499b - Senior Assessment: Design/Tech ..... 3
Approved Elective ..... 3
THEA 199 - Theater Production .....  0
Total ..... 12Spring Semester

Spring Semester
Year 1
THEA 112a - Introduction to Acting 3
THEA 114b - Forms of Dramatic Action .3

THEA 150, 160, or 170 (Not already taken) . . . . . . . . . . . . . . . . . 3
THEA 250 - Theater Graphics (or ISS) .3

ENG 102 -English Composition II. 3

Physical Science (BPS). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18
Year 2
THEA 201b - History of the Theater . . . . . . . . . . . . . . . . . . . . . . . 3
THEA 220 - Directing for the Stage . . . . . . . . . . . . . . . . . . . . . . 3
Foreign Language 102 (EGC) . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
Life Science (BLS)/Lab Experience (EL) . . . . . . . . . . . . . . . . . . . 3
ART 111 - Introduction to Art (BFPA) . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16

Year 3
THEA 350 - Scenic Design . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
ART 225b - History of World Art (BFPA, EGC) . . . . . . . . . . . . . . . 3
Interdisciplinary Studies (IS) . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Health Experience (EH) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Approved Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
THEA 199-Theater Production . . . . . . . . . . . . . . . . . . . . . . . . . 0
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15
Year 4
THEA 360 - Costume Design . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
THEA 450, 460, 470, or 475-Design Projects
(or Approved Elective) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
THEA 199 - Theater Production . . . . . . . . . . . . . . . . . . . . . . . . . 0
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12
:


While an art minor is not required, it is highly recommended that students wishing to specialize in Design/Technical Theater pursue a strong foundation in art courses, including two-dimension and three-dimension communication.

\section*{Sample Curriculum for the Bachelor of Arts in Theater and Dance: Performance}

Fall Semester

\section*{Year 1}

THEA 112a - Introduction to Acting. . . . . . . . . . . . . . . . . . . . . . . . 3
THEA 114a - Forms of Dramatic Action . . . . . . . . . . . . . . . . . . . . 3
DANC 114 - Movement Fundamentals . . . . . . . . . . . . . . . . . . . . . 3
ENG 101 -English Composition I . . . . . . . . . . . . . . . . . . . . . . . . . 3
ACS 101 or 103 - Oral Expression . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15

Year 2
THEA 199 - Theater Production . . . . . . . . . . . . . . . . . . . . . . . . . 0
THEA 201a - History of the Theater . . . . . . . . . . . . . . . . . . . . . . . . 3
THEA 210a - Acting III . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
RA 101 - Reasoning \& Argumentation . . . . . . . . . . . . . . . . . . . . . . 3
Fine \& Performing Arts (BFPA) . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Foreign Language 101 (BICS). . . . . . . . . . . . . . . . . . . . . . . . . . . 4
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16

Spring Semester

\section*{Year 1}

THEA 112b - Creating a Role . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
THEA 114b - Forms of Dramatic Action . . . . . . . . . . . . . . . . . . . . 3
THEA 150, 160, or 170 Technical Theater . . . . . . . . . . . . . . . . . . . . 3
ENG 102 - English Composition II. . . . . . . . . . . . . . . . . . . . . . . . . 3
QR 101, MATH 150 or Higher . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15

Year 2
THEA 199 - Theater Production . . . . . . . . . . . . . . . . . . . . . . . . . 0
THEA 201b - History of the Theater . . . . . . . . . . . . . . . . . . . . . . . 3
THEA 220 - Directing for the Stage . . . . . . . . . . . . . . . . . . . . . . . . 3
THEA 210b - Improvisation . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Physical Science (BPS). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Foreign Language 102 (EGC) . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16
Sample Curriculum for the Bachelor of Arts in Theater and Dance: Performance cont.Fall Semester
Year 3
THEA 215a - Movement and Voice for the Stage ..... 3
DANC 310a - Intermediate Modern Dance ..... 3
THEA 312 - Multi-Cultural Theater in America (EUSC) ..... 3
Life Science (BLS)/Lab Experience (EL) .....  3
Social Science (BSS) ..... 3
Total ..... 15
Year 4
THEA 199 - Theater Production ..... 0
THEA 410 - Acting for the Camera ..... 3
THEA 420 - Projects in Directing ..... 3
THEA Elective, as needed. ..... 3
Humanities (BHUM) ..... 3
Approved Elective ..... 4
Total ..... 16
Spring Semester
Year 3
THEA 199 - Theater Production ..... 0
THEA 265 - Theater Makeup ..... 2
DANC 310b - Intermediate Modern Dance .....  2
THEA 230 - Rehearsal and Performance ..... 3
THEA 235 - Intro to T'ai Chi Ch'uan ..... 2
Interdisciplinary Studies (IS) ..... 3
Health Experience (EH) ..... 3
Total ..... 15
Year 4
THEA 430 - Rehearsal and Performance. ..... 3
THEA 499a - Senior Assessment Performance ..... 3
THEA 315a - Dialects for the Stage ..... 3
THEA 315b - Advanced Movement ..... 3
Total ..... 12
Sample Curriculum for the Bachelor of Arts in Theater and Dance: History/ Literature/Criticism

\author{
Fall Semester
}
Year 1
THEA 112a - Intro to Acting ..... 3
THEA 114a - Forms of Dramatic Action .....  3
ENG 101 - English Composition I ..... 3
RA 101 - Reasoning \& Argumentation .....  3
Fine \& Performing Arts (BFPA) ..... 3
Total ..... 15
Year 2
THEA 199 - Theater Production .....  0
THEA 150, 160, or 170 Technical Theater ..... 3
THEA 201a - History of the Theater ..... 3
Foreign Language 101 (BICS). ..... 4
Life Science (BLS)/Lab Experience (EL) ..... 3
QR 101, MATH 150 or Higher ..... 3
Total ..... 16
Year 3
THEA 199 - Theater Production ..... 0
Approved THEA/DANC Elective ..... 3
Interdisciplinary Studies (IS) .....  3
Elective ..... 3
Elective ..... 3
Elective .....  3
Total ..... 15
Year 4
Approved THEA/DANC 300/400 Elective ..... 3
Approved THEA/DANC 300/400 Elective ..... 3
Elective ..... 3
Elective ..... 3
Elective ..... 3
Total ..... 15
Spring Semester
Year 1
THEA 114b - Forms of Dramatic Action ..... 3
DANC 114 -Movement Fundamentals ..... 3
ENG 102 -English Composition II. ..... 3
ACS 101 or 103-Oral Expression ..... 3
Physical Science (BPS) ..... 3
Total ..... 15
Year 2
THEA 199 - Theater Production ..... 0
THEA 201b - History of the Theater ..... 3
THEA 220 - Directing for the Stage ..... 3
Foreign Language 102 (EGC) ..... 4
Social Science (BSS) ..... 3
Health Experience (EH) ..... 3
Total ..... 16
Year 3
THEA 199 - Theater Production ..... 0
Approved THEA/DANC Elective ..... 3
ENG 307, 471a, or 471b (BHUM) ..... 3
United States Culture (EUSC) ..... 3
Elective ..... 3
Elective ..... 3
Total ..... 15
Year 4
THEA 499c - Liberal Theater Studies ..... 3
Elective ..... 3
Elective ..... 3
Elective ..... 4
Total ..... 13

\section*{Sample Curriculum for the Bachelor of Science in Theater and Dance Licensure Grades 6-12}

Fall Semester
Year 1
THEA 114a-Forms of Dramatic Action . . . . . . . . . . . . . . . . . . . . 3
THEA 150 - Scene Design \& Construction . . . . . . . . . . . . . . . . . . 3
THEA 265 - Theater Makeup . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2
ENG 101 -English Composition I . . . . . . . . . . . . . . . . . . . . . . . . . 3
ACS 101 or 103-Oral Expression. . . . . . . . . . . . . . . . . . . . . . . . . 3
Total ............................................................... . . . 14

\section*{Year 2}

THEA 201a - History of the Theater . . . . . . . . . . . . . . . . . . . . . . . 3
DANC 114 -Movement Fundamentals . . . . . . . . . . . . . . . . . . . . 3
CIED 100 - Introduction to Education . . . . . . . . . . . . . . . . . . . . . . 2
Fine \& Performing Arts (BFPA) . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
QR 101, MATH 150 or Higher . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 14
Complete ILTS Test of Academic Proficiency (formerly the Basic Skills Test) for admission to the Teacher Licensure Program.

Year 3
THEA 220 - Directing for the Stage . . . . . . . . . . . . . . . . . . . . . . . 3
THEA 398 - Theater Education in the Secondary School . . . . . . 3
IS 386 - Cyberarts (recommended) . . . . . . . . . . . . . . . . . . . . . . . 3
SPE 400 - The Exceptional Child . . . . . . . . . . . . . . . . . . . . . . . . . 3
Physical Science (BPS). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
THEA 199 - Theater Production . . . . . . . . . . . . . . . . . . . . . . . . . 0
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15
Year 4
THEA 499d - Capstone Project. . . . . . . . . . . . . . . . . . . . . . . . . . 3
Cl 315b - Methods for Teaching in the Secondary School . . . . . . 2
CI 352 - Student Teaching - Secondary . . . . . . . . . . . . . . . . . . . 10
THEA 199 - Theater Production . . . . . . . . . . . . . . . . . . . . . . . . . 0
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15

Spring Semester
Year 1
THEA 112a - Introduction to Acting. . . . . . . . . . . . . . . . . . . . . . . 3
THEA 114b - Forms of Dramatic Action . . . . . . . . . . . . . . . . . . . . 3
THEA 170 - Lighting and Sound 3

ENG 102 - English Composition II. 3
.......................... 3
RA 101 -Reasoning \& Argumentation . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15
Year 2
THEA 160 - Costume Design . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
THEA 201b - History of the Theater . . . . . . . . . . . . . . . . . . . . . . 3
PSYC 111 - Foundations of Psych (BSS, recommended) . . . . . . 3
Information \& Communication in Society (BICS) . . . . . . . . . . . . . . 3
Humanities (BHUM)/Global Cultures (EGC) . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 155

Year 3
THEA 298 - Intro to Theater Ed in Secondary School . . . . . . . . . 3
EPFR 320 - Found of Ed in a Multicultural Society . . . . . . . . . . . . 3
Life Science (BLS) with a lab (EL) . . . . . . . . . . . . . . . . . . . . . . . . 3
Life, Physical or Social Science/Health Experience (EH) . . . . . . . 3
Life, Physical or Social Science . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
THEA 199 - Theater Production . . . . . . . . . . . . . . . . . . . . . . . . . . 0
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15
Year 4
THEA 312 - Multicultural Theater (EUSC). . . . . . . . . . . . . . . . . . 3
Cl 315 a - Methods of Teaching in the Secondary School . . . . .
Cl 440 - Teaching Reading in the Secondary School. . . . . . . . . .
EPFR 315 -Educational Psychology . . . . . . . . . . . . . . . . . . . . .
Life, Physical or Social Science . . . . . . . . . . . . . . . . . . . . . . . . . 3
Life, Physical or Social Science with a lab (EL) . . . . . . . . . . . . . . . 4
THEA 199 - Theater Production . . . . . . . . . . . . . . . . . . . . . . . . . 0
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18
An additional major or minor concentration in another discipline is strongly recommended for students majoring in theater education.
Students in the educational theater degree program must maintain a 2.5 cumulative G.P.A. for teacher education and must complete each required course with a grade of C or above to remain in the program.
Teacher licensure (6-12) majors are encouraged to have a second teaching field. The Department of Theater and Dance urges each student to complete enough courses in language arts to prepare for a teaching career. Admission to a theater education program is a joint decision by the academic discipline in the College of Arts and Sciences and the School of Education. Therefore, it is essential that any student desiring teacher licensure meet with an advisor in the School of Education Student Services for admission to the Teacher Education Program.

\section*{Theater and Dance Minor}

The theater and dance minor consists of 21 hours.
All Theater and Dance minors must take:
THEA 112a
THEA 150 , or 160 , or 170
THEA 201a, or THEA 201b, or DANC 240
DANC 114
THEA 199
Nine (9) hours of approved electives in theater and/or dance with advisor approval.

Students who minor in theater and dance must complete all required courses with a grade of

C or above and must maintain at least a 2.0 cumulative GPA. Students should declare their minor as soon as possible so a mentor may be assigned to them.

\section*{Graduation Requirements}

■ Complete all specific program requirements.
■ Complete all University requirements including:
- All general education requirements
- A minimum of 120 credit hours
- At least 30 of which must be completed at SIUE
- At least 60 of which must be completed at a regionally accredited 4 -year institution
- A minimum cumulative grade point average of 2.0
■ File an Application for Graduation by the first day of the term in which you plan to graduate.

\section*{Integrative Studies}

\author{
College of Arts and Sciences
}

\section*{Degree Programs}

Bachelor of Arts, Integrative Studies
Bachelor of Science, Integrative Studies

\section*{Program Description}

The Integrative Studies degree is an interdisciplinary program that is geared towards students who have diverse academic interests that span across diciplines and would like to meld these interests into one cohesive program. It provides an opportunity for students to widen their perspectives by exploring and making connections between different fields of study. The program offers students an avenue for embracing their individuality by designing a unique B.A. and B.S. degree that will help them achieve their their personal and career goals. By designing their own program of study, in consultation with a professional advisor and faculty mentor, students take responsibility for their educational and career planning.

Students who complete a degree in Integrative Studies can lead to a multitude of avenues for connecting coursework with career goals. Individuals who may want to start a business, pursue careers in sales, management, nonprofit, social service, or technological fields, continue on to a graduate program or pursue a professional certification can benefit from an Integrative Studies degree.

\section*{General Education Requirements}

\section*{Foundations Courses}

ENG 101 ENG 102 QR 101 RA 101
ACS 101
Breadth Areas
One from each of the following:
Fine \& Performing Arts (BFPA)

Humanities (BHUM)
Information \& Communication in Society (BICS)
Life Science (BLS)
Physical Science (BPS)
Social Science (BSS)
Experiences*
Lab (EL)
Health (EH)
New Freshman Seminar (NFS)
Global Cultures (EGC)
United States Cultures (EUSC)
Interdisciplinary Course
Major Requirements
INTG 300 INTG 499
Focus Areas**:
At least two (For each focus area, course work should be equivalent to a minor)
Program Electives*:
(These courses should reflect the student's areas of interest; May be minor/s; drawn up jointly by advisor and student)
Leadership Course Requirement:
At least one course from the following:
PSYC 320 PSYC 365 PSYC 474 SOC 338
SOC 420 UNIV 300
*No credit hours are allocated to the Experiences since these can double dip with the other courses.
**Students may take a Minor in Business Administration according to the catalog provisions with 3 required courses (Required courses: ECON 111, ECON 112, ACCT 200) and no more than 18 hours of elective courses. All course prerequisites must be honored as stated in the SIUE Undergraduate Catalog. Under no circumstances should coursework in the School of Business exceed 27 credit hours.

\section*{Other Requirements}

Bachelor of Science (B.S.) - 8 courses in Life, Physical, and Social Sciences, which includes 2 laboratory courses. Bachelor of Arts (B.A.) - 8 courses in Fine and Performing Arts and Humanities, which includes a 2 -semester sequence of a foreign language.

\section*{Service Learning Component}
(Satisfied by taking a course that has a service learning component or by completing the Student Leadership Development Plan (SDLP) through the Kimmel Center)

\section*{Sample Curriculum for the Bachelor of Science in Integrative Studies Focus Areas: Biological Sciences, Criminology and Forensics}
Fall Semester
Year 1
CHEM 121A - General Chemistry I (BPS) . . . . . . . . . . . . . . . . . . . 4
CHEM 125A - General Chemistry Lab I (EL) .....  1
ENG 101 - English Composition I .....  3
MATH 150 - Calculus I. ..... 5
ACS 101 - Public Speaking ..... 3
Total ..... 16
Year 2
BIOL 151 - Intro to Biological Sciences I ..... 4
CHEM 241A - Organic Chemistry I .....  3
RA 101 - Reasoning and Argumentation ..... 3
PSYC 111 ..... 3
Breadth Fine Arts (Global Cultures). ..... 3
Total ..... 16
Year 3
CJ 111 - Intro to Criminal Justice ..... 3
Breadth Humanities (United States Cultures) ..... 3
BIOL 423 - Forensic Biology ..... 3
PSYC 320 ..... 3
INTG 300. ..... 3
Total ..... 15
Year 4
ANTH 469 - Forensic Anthropology Applications ..... 3
CJ 207 - Criminal Procedures ..... 3
Interdisciplinary Studies (IS) ..... 3
BIOL 389 - Comparative Vertebrate Anatomy ..... 4
CJ 272-Criminology ..... 3
Total ..... 16Spring SemesterYear 1CHEM 121B - General Chemistry II.4CHEM 125B - General Chemistry Lab II 1
BIOL 150 - Intro to Biological Sciences I4
STAT 244 - Statistics3
ENG 102 - English Composition II.16
Year 2
BIOL 220 - Genetics ..... 4
CHEM 241B - Organic Chemistry II ..... 3
CHEM 245-Organic Chemistry Lab .....  2
PHYS 131A - College Physics I ..... 5
Total ..... 14
Year 3
BIOL 319 - Cell \& Molecular Biology ..... 4
CJ 206 - Criminal Law ..... 3
Health Experience (EH). ..... 2
ANTH 369 - Intro to Forensic Anthropology ..... 3
Elective ..... 3
Total ..... 15
Year 4
INTG 499 - Senior Assignment ..... 3
CJ 410 - Judicial Process: The Criminal Court System ..... 3
Elective .....  2
Quantitative Analytical Chemistry ..... 3
Quantitative Analytical Chemistry Lab. ..... 1
Total ..... 12

The University requires students earning a B.S. Degree to complete at least eight (8) courses in the sciences (life, physical, or social) (*), including, as a part of those eight courses, two (2) courses designated as labs (EL).

\section*{Graduation Requirements}

■ Complete all specific program requirements.
■ Complete all University requirements including:
- All general education requirements
- A minimum of 120 credit hours
- At least 30 of which must be completed at SIUE
- At least 60 of which must be completed at a regionally accredited 4 -year institution
- At least 60 credit hours must be at the 200-level or above
- At least 40 hours must be at the 300-level or above
- A minimum cumulative grade point average of 2.0
- File an Application for Graduation by the first day of the term in which you plan to graduate.

\section*{The Bachelor of Liberal Studies (BLS) Traditional Program}

\section*{Peck Hall, Room 3432 siue.edu/artsandsciences/liberalarts}

The Bachelor of Liberal Studies degree program is designed to enable students to pursue a broadbased education in liberal arts and sciences. Students pursuing the Bachelor of Liberal Studies degree are offered the flexibility to develop an individualized program of study with a specific interdisciplinary focus. Unlike other majors, the BLS emphasizes breadth of study rather than focus on a single discipline. The program is designed to meet the needs of students whose educational, employment, career, professional, and personal goals may not be fully met with a specific SIUE major, and for students who
have integrative abilities to plan and develop a program appropriate to their interests.
Admission to the program is based on approval of a proposed plan of study that demonstrates both an interdisciplinary focus and the ability to satisfy goals with a specific SIUE major. The plan of study must satisfy all the requirements listed below. The proposal must include a statement of educational goals, the interdisciplinary focus, the courses selected to satisfy all requirements, and the relevance of the BLS degree to those goals. Students submit the proposal for a review by the BLS program director and advisor who review the appropriateness of the interdisciplinary focus and who ensure that the focus cannot be supported within any existing SIUE major. The process also includes eventual planning for the Senior Assignment and selecting supporting faculty. Students should have at least a 2.0 grade point average at the time of entry into the program. An approved student proposal constitutes an educational program, which may be modified only after approval by the director of the BLS degree. The educational program should reflect a curriculum with an interdisciplinary focus in the Liberal Studies Disciplinary Course Description requirements as well as in elective courses.

Students who plan to pursue graduate study should develop a program that can satisfy graduate admission requirements. Students should apply for a BLS major before their senior year. Seniors may enter the program, provided they develop an approved program that demonstrates both an interdisciplinary focus and the ability to satisfy goals with a specific SIUE major. This student, having completed more than 90 credit hours, must demonstrate relevance of the BLS degree to his or her goals and propose a plan of study that satisfies SIUE requirements.

\section*{Career Opportunities}

The Bachelor of Liberal Studies program is intended to enhance knowledge in a variety of areas. Extensive course alternatives available through this program allow students to adapt their curriculum to meet individual needs. This enables the student to develop a comprehensive resumé to reflect individual characteristics and capabilities expected of all graduates in the College of Arts and Sciences.
The program is of special value to those who are not seeking a career based in a single discipline, to those who already possess occupational skills, and to those who seek enrichment of their personal and professional lives. Part-time
students are able to complete this degree through evening and weekend course offerings.

\section*{Degree Requirements Bachelor of Liberal Studies}

Each student must develop an educational contract that satisfies the following requirements:
A. Total number of hours required ..... 120
B. General Education ..... 36
C. Required Courses in Arts and Sciences ..... 45
1. Natural Sciences and Mathematics ..... 15
2. Social Sciences . ..... 15
3. Fine Arts and Humanities. ..... 15
At least 5 courses consisting of a minimum of 15semester hours, above and beyond the generaleducation requirements, must be completedwith grades of C or better, of the disciplinarydistributions indicated below.
D. Elective Hours. ..... 36
1. General Electives ..... 9
2. Focused Electives ..... 27
A specific interdisciplinary focus will beformulated upon the student's entry into theprogram and will become a part of the student'seducational contract. Courses taken to satisfyelective hours will explicitly relate to this focus.
E. Senior Project. ..... 3
The Senior Project (a capstone academicexperience), serving as a component in seniorassessment, affords the student an opportunityfor self reflection and independent study. Theacademic breadth of the liberal studies programorients students' attention toward activities thatmight include, but are not limited to, a studentpracticum, internship, integrative researchpaper, presentation, or creative undertaking. Aminimum grade of C in LIBS 400 is required tomeet degree requirements.

At least 45 hours of the total required for graduation should be earned through junior- and senior-level courses ( 300 and/or 400 level).
A maximum of 24 hours, beyond general education requirements, may be used in any one discipline to meet degree requirements.

\section*{Admission}

Students wishing to declare a major must satisfy the following requirements:
■ Complete all Academic Development courses required by the University.
- Complete any required courses to address high school deficiencies.

■ Achieve a cumulative grade point average of at least 2.0 in courses completed at SIUE.

\section*{Retention}

Students must maintain a cumulative grade point average of at least 2.0 to remain in good academic standing. Students whose cumulative grade point average falls below 2.0 will be placed on academic probation, returned to undeclared status and limited to a maximum of 12 hours of enrollment per term.

\section*{Transfer}

Coursework completed at regionally accredited institutions will be evaluated upon admission to the University. Results of transfer credit evaluations are available to students through CougarNet. For more information regarding transfer, please visit siue.edu/transfer.

\section*{Sample Curriculum for the Bachelor of Liberal Studies}
Fall Semester
Year 1
ENG 101 - English Composition ..... 3
ACS 101 or 103-Oral Expression ..... 3
RA 101 - Reasoning \& Argumentation ..... 3
Fine \& Performing Arts (BFPA) ..... 3
Humanities (BHUM) ..... 3
Total ..... 15
Year 2
Information \& Communication in Society (BICS) ..... 3
Life Science (BLS) with a lab (EL). ..... 3
Health Experience (EH) ..... 3
LIBS Disciplinary Distribution (Fine Arts \& Humanities) ..... 3
LIBS Disciplinary Distribution (Social Sciences) ..... 3
Total ..... 15
Year 3
LIBS Disciplinary Distribution (SS) ..... 3
LIBS Disciplinary Distribution (NSM) ..... 3
LIBS Disciplinary Distribution (FAH) ..... 3
LIBS Disciplinary Distribution (SS) ..... 3
LIBS Disciplinary Distribution (NSM) ..... 3
Total ..... 15
Year 4
Focused BLS Elective ..... 3
Focused BLS Elective ..... 3
Focused BLS Elective - 3XX ..... 3
Focused BLS Elective-3XX .....  3
Focused BLS Elective - 4XX ..... 3
Total ..... 15
Spring Semester
Year 1
ENG 102 - English Composition ..... 3
QR 101, MATH 150 or Higher ..... 3
Social Science (BSS) ..... 3
United States Culture (EUSC) ..... 3
Physical Science (BPS) with a lab (EL) . ..... 3
Total ..... 15
Year 2
LIBS Disciplinary Distribution (Natural Sciences \& Mathematics). . 3
LIBS Disciplinary Distribution (FAH) ..... 3
LIBS Disciplinary Distribution (SS) ..... 3
LIBS Disciplinary Distribution (NSM) ..... 3
LIBS Disciplinary Distribution (FAH) .....  3
Total ..... 15
Year 3
LIBS Disciplinary Distribution (FAH) ..... 3
LIBS Disciplinary Distribution (SS) ..... 3
LIBS Disciplinary Distribution (NSM) .....  3
Interdisciplinary Studies (IS) .....  3
Global Cultures Experience (EGC) ..... 3
Total ..... 15
Year 4
Focused BLS Elective ..... 3
Focused BLS Elective - 3XX .....  3
Focused BLS Elective-4XX .....  3
Focused BLS Elective-4XX .....  3
LIBS 400 - Senior Project ..... 3
Total ..... 15

\section*{Graduation Requirements}

■ Complete all specific program requirements.
■ Complete all University requirements including:
- All general education requirements
- A minimum of 120 credit hours
- At least 30 of which must be completed at SIUE
- At least 60 of which must becompleted at a regionally accredited 4 -year institution
- A minimum cumulative grade point average of 2.0
- File an Application for Graduation by the first day of the term in which you plan to graduate.

\section*{Minor in Environmental Sciences}

The Environmental Sciences Program offers an undergraduate minor in environmental sciences. The undergraduate minor will increase students' technical competence in addressing and analyzing environmental issues, their origins, ramifications, and resolutions. The Environmental Sciences Program at SIUE is designed to enhance and promote multidisciplinary education while providing students with career opportunities in a wide area of interests.

Faculty from several departments in the College of Arts and Sciences provide mentoring, direction, and instruction. Practicing professionals also lend their expertise to the program. A close relationship is maintained with industries and environmental agencies so that students and faculty members can incorporate real-world issues into their studies.

Students must apply for and be accepted into the minor program in environmental sciences. The minimum requirement for admission is a cumulative GPA of 2.5 .

\section*{Minor Requirements}

To satisfy the minor requirements, students must take and complete the following 17 units of courses while maintaining a minimum cumulative GPA of 2.5:

ENSC 120 - Survey of Environmental Sciences (fall)
ENSC 210 - Applied Research Methods (spring)
ENSC 220 - Principles of Environmental Sciences (fall/spring/summer)
ENSC 220L - Principles of Environmental Sciences Lab (fall/spring/summe)
ENSC 330 - Environmental Health and Waste Management (spring)
ENSC 340 - Ecosystem Management and Sustainability (fall) ENSC 402 - Environmental Law (fall)

\section*{Interdisciplinary Minors}

\section*{Minor in African Studies}

The African Studies Minor at Southern Illinois University Edwardsville is an interdisciplinary program aimed at developing students’ knowledge and understanding of African people, their land, history, culture and socio-economic
institutions. It will provide the student with the opportunity to fully appreciate the global impacts of African humanities. Furthermore, an African Studies background will prepare students for informed global experience characterized by culturally diverse groups. Students desiring a minor in African Studies must complete 12 credit hours of required core courses and 6 credit hours of elective courses for a total of 18 credit hours. Courses not on this list may be acceptable if approved by the African Studies Coordinator. For additional information and advisement, call (618) 650-2097 or (618) 650-2091, or visit the Coordinator of African Studies in the Geography Department: 1401 Alumni Hall. Any of the listed courses already counted towards a student's major cannot be counted again for this minor.

\section*{Requirements: 18 credit hours}

Core Required Courses ( 12 credit hours):
ANTH 311 - Peoples and Cultures of the African Diaspora
GEOG 332 - Geography of Africa
HIST 352A - History of Africa: South of the Sahara, Prehistoric to Colonial Times
HIST 352B - History of Africa South of the Sahara, Colonial Times to Present

\section*{Elective Courses (6 credit hours):}

ANTH 332 - Origins of Old World Cities and States
ANTH 334 - Origins of Agriculture
ART 469 - Primitive Art: Africa and Oceania
ENGL 205 - Introduction to African American Texts
ENGL 345 - African American Poetry and Folklore
FL 101 - Elementary Foreign Language: Yoruba 1
FL 102 - Elementary Foreign Language: Yoruba 2
FR 111E - The French - Speaking World
FR 457 - African and Caribbean Literature of French Expression
GEOG 201 - World Regions
GEOG 406 - Political Geography
GEOG 428 - Travel Study (African Field Trip)
HIST 113 - Civilization of the Ancient World
HIST 130 - History of Black America
HIST 302 - Ancient Egypt
HIST 427 - History of Southern Africa
PHIL 233 - Philosophies and diverse Culture
POLS 440 - African American Politics
SOC 394 - Sociology of Black Family
WMST 352 - Women in the Ancient World

\section*{Minor in Asian Studies}

Peck Hall, Room 1224
siue.edu/artsandsciences/fll/asianstudies
The minor in Asian Studies is a multidisciplinary program sponsored by the College of Arts and Science and supported by the Departments of Anthropology, Foreign Languages and Literature, Geography, Historical Studies, Philosophy, Political Science and the School of

Business. The Asian Studies minor contributes to cultural enrichment through the study of the anthropology, geography, history, philosophy, political science, language, literature, and art of Asian societies.

\section*{Minor Requirements}

The minor in Asian Studies requires 18-20 credit hours of courses designated Asian Studies or courses approved by the Coordinator of Asian Studies. Credit is granted for only those courses in which grades of C or above are earned. For more information, please visit the Asian Studies minor website, siue.edu/artsandsciences/fll/ asianstudies, or contact the Coordinator of Asian Studies in Peck Hall 1224.

\section*{Requirements: 18-20 credit hours}
\(6-8\) hours from any two 100 and 200 level:
ARA 101 - Elementary Arabic I
ARA 102 - Elementary Arabic II
CHIN 101 -Elementary Chinese I
CHIN 102 - Elementary Chinese II
FL 111D - Introduction to Foreign Studies: Chinese
GEOG 111 - Intro to Geography: Freshman Seminar Discover China
ARA 201 - Intermediate Arabic I
ARA 202 - Intermediate Arabic II
CHIN 201 - Intermediate Chinese I
CHIN 202 - Intermediate Chinese II
PHIL 233 - Philosophies and Diverse Cultures
9 hours from any \(300-400\) level courses:
CHIN 301 - Advanced Chinese I
CHIN 302 - Advanced Chinese II
HIST 305a - Comparative Asian Civilizations, Antiquity - 1500
HIST 305b - Comparative Asian Civilizations, 1500 - Present
ANTH 306 - People and Culture of Asia
IS 324 - Peoples and Cultures of the East
GEOG 331 - Geography of the Commonwealth of Independent States
GEOG 333 - Geography of Asia
PHIL 334 - World Religions
FL345-Literature in Translation - Chinese
HIST 354a - Islamic Mid East, 600-1400 CE
HIST 354b - Ottoman Empire, 1400-1918 CE
HIST354c - 20th Century Middle East
POLS 356 - Political Systems of Asia
HIST 356a - History of China Ancient Times to 1644
HIST 356b - History of China: 1644 - Present
HIST 358 - History of Japan
HIST 400 - Topical Seminar: Chinese Revolutions
HIST 400 - Topical Seminar: Women and Nationalism in East Asia
HIST 400 - Topical Seminar: The Evolution of Contemporary Business in Japan
HIST 400 - Topical Seminar: Medieval Japan
HIST/IS 400 - History and Language of China

GEOG 426 - Beijing Human Geography Field School GEOG 450 - Geography of China
HIST 454 - History of the Arab-Israeli Conflict
HIST 455 - Women and Gender in Islamic History
GBA 489 - Business Travel Study to China
3 additional hours from any of the courses in the following complete list of Asian Studies Minor offerings at Southern Illinois University Edwardsville:

ARA 101 - Elementary Arabic I
ARA 102 - Elemetary Arabic II
CHIN 101 - Elementary Chinese I
CHIN 102 - Elementary Chinese II
FL 111D - Introduction to Foreign Studies: Chinese
ARA 201 - Intermediate Arabic I
ARA 202 -Intermediate Arabic II
CHIN 201 - Intermediate Chinese I
CHIN 202 - Intermediate Chinese II
PHIL 233 - Philosophies and Diverse Cultures
CHIN 301 - Advanced Chinese I
CHIN 302 - Advanced Chinese II
HIST 305a - Comparative Asian Civilizations,
Antiquity - 1500
HIST 305b - Comparative Asian Civilizations, 1500 - Present
ANTH 306 - People and Culture of Asia
IS 324 -Peoples and Cultures of the East
GEOG 331 - Geography of the Commonwealth of Independent States
GEOG 333 - Geography of Asia
PHIL 334 - World Religions
FL345-Literature in Translation - Chinese
HIST 354a - Islamic Mid East, 600-1400 CE
HIST 354b - Ottoman Empire, 1400-1918 CE
HIST354c - 20th Century Middle East
POLS 356 - Political Systems of Asia
HIST 356a - History of China Ancient Times to 1644
HIST 356b - History of China: 1644 - Present
HIST 358 - History of Japan
HIST 400 - Topical Seminar: Chinese Revolutions
HIST 400 - Topical Seminar: Women and Nationalism
in East Asia
HIST 400 - Topical Seminar: The Evolution of
Contemporary Business in Japan
HIST 400 - Topical Seminar: Medieval Japan
HIST/IS 400 - History and Language of China
GEOG 426 - Beijing Human Geography Field School
GEOG 450 - Geography of China
HIST 454 - History of the Arab-Israeli Conflict
HIST 455 - Women and Gender in Islamic History
GBA 489 - Business Travel Study to China
Students must maintain a minimum GPA of 2.0 .

\section*{Minor in Black Studies}

The Black Studies minor is multi-disciplinary, with courses in nine departments: Anthropology, Art, English, Historical Studies, Music, Political Science, Sociology, Speech Communication and Theater and Dance. Within the 18 hours required for this minor, students are required to take two
specific courses: English 340 and History 130. The remaining 12 elective hours are selected from a listing of designated courses. Electives must include courses from three different departments and at least three courses related to the Black experience in America:

\section*{Black Studies Courses}

\section*{Required Courses}

ENG 340
HIST 130

\section*{Designated Black Studies Electives}

ACS 210
ANTH 311, 411
ART 469a
ENG 205, 341, 342
HIST 352a,b, 442 (400 Topic: Film and African Experience)
MUS 337,338
POLS 342
SOC 304
THEA 290, 312
The director may approve other courses not listed above. For more information about this minor or any of the courses, contact the Black Studies Office at (618) 650-5038, Peck Hall, room 3402. For advisement, contact the Black Studies advisor, Prince Wells, Dunham Hall, room 2107.

\section*{Minor in Classical Studies}

The minor in classical studies is a multidisciplinary program sponsored by the College of Arts and Sciences and supported by the Departments of Art and Design, English Language and Literature, Foreign Languages and Literature, Historical Studies, and Philosophy.

The classical studies minor contributes to cultural enrichment through the study of Latin and Greek, and of the history, philosophy, literature, and art of the Greek and Roman civilizations; to language sensitivity by close attention to the grammatical and syntactical structure of Latin and/or Greek and by careful analysis of texts; to expansion of a general working vocabulary; and to knowledge of special vocabularies of such fields as medicine, law, theology, and foreign languages derived from Latin and Greek.

\section*{Requirements}

The minor in classical studies requires 20 credit hours of courses designated classical studies. Of these, eight hours are required in Greek or in Latin. Credit is granted only for courses in which grades of C or above are earned.

> Art 225a - History of World Art

Art 447a,b - Ancient Art

English 303 -Literary Masterpieces: Ancient and Medieval
English 310 - Classical Mythology and Its Influence
Foreign Languages and Literature 106 -Building Vocabulary Through Latin and Greek Word Elements
Foreign Languages and Literature 401 -Comparative Latin and Greek Grammar
Greek 101, 102 - Introduction to Greek
Greek 201, 202 - Intermediate Greek
Greek 499a-f - Readings in Ancient Greek
History 302 - Ancient Egypt
History 304 - History of Greece
History 306a,b - History of Rome
Latin 101, 102 - Introduction to Latin
Latin 201, 202 - Intermediate Latin
Latin 499a-f - Readings in Latin
Philosophy 300 - Ancient Greek and Roman Philosophy
Philosophy 440 -Classical Political Theory (Same as Political Science 484)
Because the following courses have variable content, they require advance approval by the Coordinator of the Classical Studies minor:
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Art 470 - Topics in Art
History English 478 -Studies in Women, Language, and
Literature (Same as Women's Studies 478)
Foreign Languages and Literature 390-Readings
History 300 - Special topics
History 400 - Topics in History
History 410 - Directed Readings
Humanities 400 - Symposium in the Humanities
Philosophy 490-Special Problems
Philosophy 495-Independent Readings

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For more information, please contact the coordinator of classical studies, currently Carl Springer, Professor, Department of English Language and Literature, Peck Hall 0219, (618) 650-2144.

\section*{Minor in European Studies/ Civilization}

The European Studies/Civilization minor at Southern Illinois University Edwardsville is an interdisciplinary program drawn from subject areas in the social sciences and the humanities. The courses focus on Western and Eastern Europe. Students pursuing a European Studies minor must complete a minimum of 18 credits at the 300 level or above. At least one course each must be taken in three of the four areas: Geography, History, Political Science, or Foreign Languages. Courses not on this list may be acceptable if approved by the European Studies Coordinator of the European Studies minor in the Department of Foreign Languages and Literature: 2308 Peck Hall.
Any of the listed courses already counted towards a student's major cannot be counted again for this minor.

Prerequisite: History 111B - History after 1500

\section*{Requirements: 18 credit hours}

\section*{Required Courses (complete at least one} course in three of the following areas.):

\section*{History}

HIST 308A - Imperium and Christianity: Western Europe 300-1000CE
HIST 308B - Medieval Conquests \& Kingdoms 1000-1500
HIST 315-History of Religion in Europe
HIST 320 - The Renaissance in Europe
HIST 321 - Reformation Europe 1500-1648
HIST 322 - History of Italy
HIST 408 - History of England 1500-Present
HIST 412 - French Revolution
HIST 413 - Modern France
HIST 415 - Modern German History
HIST 416 - WWI \& Its Aftermath
HIST 418-WWII
HIST 420 - European, Social Cultural, \& Intellectual History: Renaissance-French Revolution
HIST 422A,B, and C - Late Modern Europe
HIST 424 - Topics in Eastern European History
HIST 428 - Topics in European Women's History

\section*{Foreign Language}

FR 311 - Contemporary France
GER 311 - German Culture
SPAN 311 - Contemporary Spain

\section*{Geography}

GEOG 330-Geography of Europe
GEOG 331 - Geography of Independent States
Political Science
POLS 350 - Western European Political Systems
POLS 351 - Eastern European Political Systems
Interdisciplinary Course
IS 332-Political and Social Thought of Hegel and Marx

\section*{Additional Requirement:}

Two years of European foreign language

\section*{Minor in Forensic Sciences}

The Forensic Sciences minor is interdisciplinary, and exposes students to concepts and skills of social and natural science disciplines that relate to legal matters. The minor is ideal as a supplement to major programs focused on forensic applications or majors that incorporate forensic-related material, and for students considering careers in forensic analysis, law enforcement, or other areas of the criminal justice and legal systems.

Students must complete 7 courses (at least 21 credit hours) from the following list of approved courses. The 7 courses must include at least 1 course from each of the following areas: Biological Sciences, Chemistry, Anthropology, and Criminal Justice Studies. The remaining 3
courses can be approved courses in any of the four areas. Students must pass each of these courses with a "C" or better. Courses applied to the minor may overlap with courses taken for major programs.

\section*{Life Sciences: Biological Sciences}

Choose at least one course from the following: BIOL 140 - Human Biology
BIOL 150 and 151-General Biology I and General Biology II (count as 2 courses, but must be taken as a sequence)
BIOL 240a and 240b - Human Anatomy and Physiology (count as 2 courses, but must be taken as a sequence)
BIOL 423 - Forensic Biology
Physical Sciences: Chemistry
Choose only one course from the following:
CHEM 120a and 124a - General, Organic, and Biological Chemistry and Laboratory (setcounts as 1 course, taken concurrently)
CHEM 120b and 124b - General, Organic, and Biological Chemistry and Laboratory (set counts as 1 course, taken concurrently)
CHEM 121a and CHEM 125a - General Chemistry and Laboratory (set counts as 1 course, taken concurrently)
CHEM \(120 n\) and CHEM \(124 n\) - Nursing Principles of General, Organic, and Biological Chemistry and Laboratory (set counts as 1 course, taken concurrently)
Other approved Chemistry courses include:
CHEM 241a-Organic Chemistry I
CHEM 241 b and CHEM 245 - Organic Chemistry II and Laboratory (set counts as 1 course, taken concurrently)

\section*{Social Sciences: Anthropology}

Choose at least one course from the following:
ANTH 359 - Law, Politics, and Human Rights in Cross Cultural Perspective
ANTH 369 - Introduction Forensic Anthropology
ANTH 469 - Forensic Anthropology Applications
ANTH 430 -Zooarchaeology
*ANTH 474 - Biological Anthropology Field School
*ANTH 475 - Archaeological Field School
*ANTH 474 or 475 for 3 or 6 credits. Regardless of credit hours, the field school counts as 1 course toward the minor.

\section*{Social Sciences: Criminal Justice Studies}

Choose at least one course from the following:
CJ 111 Introduction to Criminal Justice
CJ 206 Criminal Law
CJ 207 Criminal Procedure
CJ 410 Judicial Process: The Criminal Court System
Note that some of these courses may require prerequisites.
For more information regarding this minor, please contact the Department of Anthropology, Peck Hall, room 0212, 618-650-2744.

\section*{Minor in Latin American Studies}

The Latin American Studies Minor at Southern Illinois University Edwardsville is an interdisciplinary program drawn from the
subject area of Spanish and courses in the Social Sciences and other Humanities. Students who pursue this minor complete a concentration of courses, which focus on Latin American culture, history, politics, the environment, economics and the arts. Students must complete 7 courses or a total of 21 credit hours. These courses include 3 required courses, 4 electives of which only 1 may come from the special electives category. There are no substitutions for the 3 required courses. A maximum of 6 credit hours or 2 courses overlap between the minor and the major is allowed.

This minor is especially appropriate for students planning to enter professions such as government service, international relations, international business, teaching or environmental sciences. It is also a good minor for those preparing themselves to become global citizens. For additional information and advisement visit the coordinator of the Latin American Studies Minor in Peck Hall, Room 2322.

\section*{Requirements: 21 credit hours}

\section*{Required Courses:}

SPAN \(312^{*}\) - Contemporary Spanish America HIST 360a or 360b - History of Latin America ANTH 333 or 307 - Origins of New World Civilizations or

People and Culture of Latin America and the Caribbean
Elective Courses (Select 12 hours from below. Only 3 credit hours are allowed from the list of courses under special electives. Electives are courses with Latin America as primary content. Special electives include courses with a substantial Latin American component and relevance to Latin America studies, but Latin American topics may not be the only or primary topic):
SPAN 392 or 492** - Service Learning/Study Abroad Immersion Courses (course content varies depending on study location)
SPAN 352 - Survey of Spanish-American Literature: Colonial Period until the Present
SPAN 454 - Seminar in Spanish American Topic
SPAN 471 - Spanish American Literature: Short Stories or Novel
*All Spanish courses except SPAN 392 are taught in Spanish
**SPAN 492 is encouraged for language majors and minors and focuses on language learning.

SPAN 392 is a service learning, introductory language and culture studies course for the non-language major.

HIST 360a - History of Latin America (prehistory to 19th century)
HIST 360b - History of Latin America (modern)
HIST 460 - History of Mexico
HIST 461 - History of Cuba
HIST 462 - History of Brazil
ANTH 307 - People and Culture of Latin America and the Caribbean

ANTH 333 - Origins of New World Civilization
ART 468a, 468b - Primitive Art: The Americans

\section*{Special Electives}

ANTH 428 - Primates, Conservation and Environment MC 453 - Transnational Media
ENSC 445-Conservation Biogeography
MUS 305 - Non-Western Music
Some Geography courses might qualify as special electives (e.g. human geography, world geography, etc.), depending on the content.
Economics courses on international trade policies and international finance might qualify as special electives depending on content.

All study abroad courses in Latin America can be used for this minor. However only up to six hours can be accomplished through study abroad and must be approved by the coordinator of the Latin American Studies Program. An exception might be made if the student enrolls in a Latin American university for a semester as an exchange student and takes courses that are equivalent to those as outlined in the Latin American Studies Minor.

\section*{Minor in Native American Studies}

The minor in Native American Studies is an interdisciplinary minor administered by the Department of Anthropology that will permit students to study Native Americans from a variety of scholarly perspectives. The understanding of Native Americans, past and present, has been hindered by alternating efforts to dehumanize and vilify indigenous Americans; vs. efforts to stereotype and exalt them as "noble savages;" vs. simply ignoring their role in history and contemporary society. The Native American Studies minor raises awareness of central issues for Native Americans by critically examining their past, present, and future through diverse bodies of evidence such as material culture, oral histories, ethnohistory, and ethnography.
To complete the minor in Native American Studies, the student must receive C's or better in ANTH 205: Introduction to Native American Studies, plus five of the following courses:

\footnotetext{
ANTH 305 Peoples and Cultures of Native North America
ANTH 312 Contemporary Native Americans
ANTH 336 North American Prehistory
ANTH 420 Museum Anthropology
ANTH 432 Prehistory of Illinois
ART 468a Precolumbian Art
ART 468b Native Arts of North America
HIST 423a Native Americans Before 1492 to 1840
HIST 423b Native Americans 1840 to present
HIST 451 Native Americans Encounter Lewis and Clark
}

HIST 452 Native American Women
IS 305 Native American Studies
PHIL 337 American Indian Thought
POLS 449 Racial and Ethnic Politics in the US
Courses counted toward the Native American Studies minor may not be counted toward the student's major and must come from a least two different academic departments. For more information regarding the Native American Studies minor, please contact the Department of Anthropology, Peck 0212, 618-650-2157 or email juholt@siue.edu.

\section*{Minor in Peace and International Studies}

The Peace and International Studies minor at Southern Illinois University Edwardsville is an interdisciplinary program devoted to research and teaching on the problems of war and peace, arms control and disarmament, collective violence, human rights, conflict resolution, inequalities and conflict, and informed citizenship in democracy. Students must complete 9 hours of required courses and 12 hours of elective courses for a total of 21 credit hours. This minor is especially appropriate for students planning to enter professions such as journalism, radio or television news casting, government service, teaching, law, international business, or international relations. It is also a good minor for people interested in preparing themselves for their roles as informed citizens in a democracy. The Coordinator may also approve other appropriate substitutions when courses are not available. For additional information and advisement, call (618) 650-3375, or visit the Coordinator of the Peace and International Studies Program in the Department of Political Science: 3219 Peck Hall.
Any of the listed courses already counted towards a student's major cannot be counted again for this minor.

\section*{Requirements: 21 credit hours}

Required Courses ( 9 hours):
IS 340 - The Problem of War and Peace
POLS 370 - Introduction to International Relations
POLS 472 - International Organizations
The remaining 12 credit hours can be selected from the following list or additional courses in Anthropology, Economics, Geography, Historical Studies, Interdisciplinary Studies, Philosophy, Political Science, and Sociology \& Criminal Justice with approval of Coordinator:

\section*{Elective Courses (select 12 hours from the list below):}

ECON 361 - Introduction to International Economics
ECON 425 - Economic Systems
ECON 461 - International Trade Theory \& Practice
ECON 450 - International Finance
GEOG 300-Geography of World Population
GEOG 301 - Economic Geography
GEOG 450 - Globalizations
HIST 354A - Islamic Middle East
HIST 354B - History of the Middle East
HIST 454 - Arab Israeli Conflict
IS 336 - Global Problems \& Human Survival
IS 364 - The Atomic Era: European Refugees, American Science, \& the Bomb
IS 399 - Gender, Ethnicity, Development and Conflict
MKTG 476 - International Marketing
PHIL 340 - Social and Political Philosophy
PHIL 344 - Socialism \& Social Democracy
PHIL 441/POLS 485-Modern Political Theory
POLS 351 - Eastern European Political Systems in Transition
POLS 385 - Introduction to Political Theory
POLS 473 - U.S. Foreign Policy
POLS 479 - Topics in International Relations
SOC 200 - Cooperation \& Conflict

\section*{Additional Information:}

Special Topics \& Independent/Special Readings courses in Anthropology, Economics, Geography, History, Humanities, Philosophy, Political Science, and Sociology also may be used as electives for the Peace Studies minor when appropriately focused, as determined by the Coordinator.

\section*{Minor in Pre-Law}

This 21 hour minor allows exposure to a variety of skills identified as crucial to success in the study of law and a variety of legal career settings. Skills such as written and oral communication, critical thinking, problem solving, selfdevelopment, and citizenship are useful for the study of law. This minor allows students to structure a minor outside of their identified major that describes the rigors of a legal education. The Pre-Law Minor allows a student to select from courses from over 15 departments at SIUE that continue to improve those previously identified critical skills. Whether or not law school is the ultimate goal, this Minor can be useful to spark an interest in justice issues. A student may take no more than two courses from a specific department to fulfill the minor requirements, and must take a minimum of four courses at either 300 or 400 level at SIUE to successfully complete the minor.

\section*{Admission Requirements}

Students must successfully complete (earn a grade of C or better) in ENG 102 and RA 101.

\section*{Retention Standards}

A grade of C or better in all minor coursework is required.

\section*{Required Courses (Total 21 credit hours)}

CJ 348/PHIL 348/POLS 392 (3 hours)
In addition, students must take one course from each of three Skills Courses ( 9 hours): Written Communication (ENG 201, 332, 334, or 490); Oral Communication (ACS 200, 204, or 300); and Critical Thinking, Quantitative Reasoning, Logic (PHIL 207 or 213; MATH 223; PSYC 206 or 208; or ECON 331).

Students must also take two courses from Legal Studies ( 6 hours). One must be chosen from Principles of Law (CJ 206 or 207; POLS 390 or CJ 410 ; POLS 495 or 496), and one must be chosen from Theory or Application of Law (PHIL 343/ POLS 391; ENSC 402/POLS 498; PHIL 498/POLS 498; MC 401; CNST 310 or 411; POLS 424 or 299; CJ 311, 465; ACCT 340; HIST 201; PHIL 340; PHIL 440/POLS 484; or PHIL 441/POLS 485).

Students may select an elective course from additional departmental courses in Oral Communication (ACS 305 or 430; THEA 112a or 210; or POLS 410); Written Communication (ENG 401, 410, 416, 369, or 491); Applications/ Extension of Law (ANTH 350, 312, 366, or 452; PHIL 222, 320, or 321; PSYC 320, 365, or 431); or Critical Thinking, Quantitative Reasoning, Logic (STAT 107 or 244 ; MS 250 or 251 ; ACCT 200; POLS 300; ECON 111 or 112). If students prefer, they may select an elective from the required course listings as well. Some IS Courses may also qualify as electives, and final approval must be sought from the Pre-Law Mentor.
Pre-Law Minor courses are listed in their respective Departmental Course Descriptions section.

For more information, please contact the office, Peck Hall, room 1211, (618) 650-5694. The PreLaw Minor web site is siue.edu/artsandsciences/ prelawminor.

\section*{Minor in Religious Studies}

Peck Hall 3212
siue.edu/artsandsciences/philosophy/ religiousstudies/

The minor in religious studies is a multidisciplinary program administered by the

Department of Philosophy offering opportunities for the academic study of religion.

A minor in religious studies consists of 18 hours, 9 of which are required courses: PHIL 333 - Philosophy of Religion; PHIL 334 - World Religions; and one of the following: PHIL 336 Christian Thought, PHIL 335 - Islamic Thought, PHIL 337- Native American Thought, or another 300 -level course approved by the religious studies advisor that concerns a particular religious tradition. Students select elective courses from those approved by the advisor. A maximum of 3 credit hours counted toward a major in philosophy also may count toward the religious studies minor.
Elective courses for the minor include those listed below. Refer also to the list on the religious studies home page. Other courses may be approved, contingent on approval of the religious studies advisor. Departments including Historical Studies and Philosophy have special topics courses that could be appropriate.
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ANTH 305-Peoples and Cultures of Native North America
ANTH 306 - Peoples and Cultures of Asia
ANTH 307 - People and Culture of Latin America and the
Caribbean
ANTH311-Culture of African-Americans
ANTH 312 -Contemporary African-Americans
ANTH 410 - Anthropology of Religion
ART $447 \mathrm{a}, \mathrm{b}$ - Ancient Art
ART 448-Medieval Art
ART 449 - Italian Renaissance Art
ART 451 - Northern Renaissance Art
ART 468 a b-b-Primitive Art: The Americas
ART 469 a,b-Africa and Oceania
ENG 306 - Introduction to the Bible
ENG 473-Milton
FL 106 - Word Analysis: Latin and
Greek Roots
FL 230 - Foundations of Celtic Culture
FL 330 - Celtic Culture: Mythology and Religion
HIST 302 -Ancient Egypt
HIST 304 - History of Greece
HIST 305 a b-b-Comparative Asian Civilizations
HIST 306 a, b-History of Rome
HIST 308 a,b - Imperium and Christianity
HIST 308b - Medieval Conquests and Kingdoms, 1000-
1500 C.E.
HIST 313 - Witchcraft, Magic and the Occult
HIST 342 - History of Religion in America
HIST 354a,b - History of the Middle East
HIST 403-Ancient Mesopotamia
HIST $404 \mathrm{a}, \mathrm{b}$ - Topics in Medieval Social, Religious and
Intellectual History
HIST 423 a,b - Native Americans Before 1492 to the
Present
HIST 454 - History of The Arab-Israeli Conflict
IS 324 -Peoples and Cultures of the East

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PHIL 220 - Religion, Reason and Humanity
PHIL 233 - Philosophies and Diverse Cultures
PHIL 301 - Medieval Western Philosophy
PHIL 320 - Ethics
PHIL 331 - Philosophy, Science and Religion
PHIL 390 - Philosophy Here and Abroad
THEA 235-Introduction to T'ai Chi Ch'uan
Admission Requirement Students must successfully complete (earn a grade of C or above) RA 101 - Reasoning \& Argumentation, or its equivalent, before they apply for a minor in religious studies. RA 101 or its equivalent does not count for credit toward the minor in religious studies.

\section*{Minor in Urban Studies}

The Urban Studies minor at Southern Illinois University Edwardsville is an interdisciplinary program dedicated to the cultivation of knowledge and skills pertaining to urban issues at the local, national, and global scales. A minor in Urban Studies will help prepare students to be informed, thoughtful, and engaged participants in an urban world by providing a broad program of study encompassing the social, cultural, geographical, historical, political, economic, and planning dimensions of cities and urban life.
Students desiring a minor in Urban Studies must complete 6 credit hours of required core courses and at least 12 credit hours of elective courses for a minimum 18 credit hours. Courses taken to fulfill minor requirements must come from at least two different academic departments. Students must pass all courses with a grade of "C" or better. Courses already counted toward a student's major cannot be counted again for this minor unless approved by both the student's major program advisor and the Urban Studies Coordinator. Courses not listed among the electives may be acceptable if approved by the Urban Studies Coordinator. For additional information, please contact the Urban Studies Coordinator at urbanstudies@siue.edu.

Core Required Courses ( 6 credit hours):
GEOG 303 - Introduction to Urban Geography
Any one of the following (remaining courses may be taken to fulfill elective requirements):

\section*{GEOG 403 - Advanced Urban Geography}

POLS 344 - Urban Politics
SOC 335 - Urban Sociology
Elective Course Requirements (minimum 12 credit hours):
ANTH 332-Origins of Old World Cities and States
ANTH 333 - Origins of New World Cities and States
ANTH 411 - Urban Anthropology
CE 376 - Transportation
CJ 366 - Race and Class in Criminal Justice

CNST 264 - Constructive Surveying
CNST 415 -Land Development
ECON 327 - Social Economics: Issues in Income, Employment and Social Policy
ECON 445-Economics of the Public Sector: State and Local
EPFR 320 - Foundations of Education in a Multicultural Society
GEOG 402-Cultural Landscape
GEOG 403 - Advanced Urban Geography
HIST 434a - Modern Twentieth Century American History (1896-1945)
HIST 434b - Modern Twentieth Century American History (1945-Present)
HIST 442 - The Black Urban Experience
HIST 470 - Preserving the American Past
POLS 320 - Introduction to Public Administration
POLS 342 - Issues in American Public Policy
POLS 344 - Urban Politics
SOCW 303 - Human Behavior in the Social Environment II
SOCW 390 - Diversity and Issues of Social and Economic Justice
SOC 304 - Race and Ethnic Relations
SOC 335 - Urban Sociology
Because the following courses have variable content, they require advance approval by the Coordinator of the Urban Studies Minor:

> ANTH 350 - Applied Anthropology
> CJ 390 - Special Topics in Criminal Justice
> GEOG 451 - Topics in Human Geography
> HIST 400 - Topics in History
> PAPA 499 - Seminar in Public Administration

\section*{Minor in Women's Studies}

Women's Studies is a growing interdisciplinary field that emphasizes gender perspectives and contributions of women. Women's experiences and voices have often been omitted from traditional curricula and textbooks. Furthermore, when women are discussed in these realms, they are assumed to be one homogenous group without differences in race/ethnicity, class or sexuality. Women's Studies courses focus on issues relating to gender as well as the many untold stories of women and all their differences with regard to work, love, culture, and family.

Since its beginning in the United States in the early 1970s, Women's Studies has generated much scholarly inquiry into oppression: patriarchy, racism, homophobia and class. Women's Studies classes, however, are not only interested in uncovering power relations; many also wish to show students avenues for change.

Required Courses ( 3 hours):
WMST 200
Departmental Courses ( 15 hours)
Select any of the following cross-listed courses
from at least three different departments, with a maximum of 6 hours from your major. Courses are credited to a department in accordance with the faculty member's departmental assignment.

ACS/WMST 331
ANTH/WMST 313 and 315
ART/WMST 473
CJMMST 367
EPFRWMST 451
ENG/WMST 341 and 478
FRWMST 456
HED/WMST 300
HIST/WMST 428, 440, 445, 452 and 455
IS/WMST 350, 352, and 353
MC/WMST 351
PHIL/WMST 344, 345 and 346
POLS/WMST 354,441
PSYC/WMST 305
SOC/WMST 308, 310, 391, 394 and 444
WMST 390, 490, 495, 499
Women's Studies courses, including those crosslisted with departments, are listed in the Course Descriptions section.
For more information, please contact the office, Peck Hall, room 3407, (618) 650-5060. The Women's Studies Web site is siue.edu/ artsandsciences/womensstudies/.


\section*{School of Business}

Founders Hall, Room 3307
siue.edu/business

\section*{Distinguished Research Professor}

Hafer, Rik W., Economics, Ph.D., 1979, Virginia Polytechnic Institute and State University

\section*{Professors}

Bharati, Rakesh C., Finance, Ph.D., 1991, Indiana University - Bloomington
Bordoloi, Bijoy, Computer Management \& Information Systems, Ph.D., 1988, Indiana University
Costigan, Michael L. (Chair), Accounting, Ph.D., 1985, Saint Louis University
Joplin, Janice R. W. (Associate Dean), Ph.D., 1994, University of Texas - Arlington
Kutan, Ali M., Economics, Ph.D., 1990, Arizona State University
Lovata Rutz, Linda M., Accounting, Ph.D., 1983, Indiana University
Moore, Jo Ellen, Computer Management \& Information Systems, Ph.D., 1997, Indiana University
Navin, John C. (Dean), Ph.D., 1992,
Michigan State University
Powell, Anne L. (Chair), Computer Management \& Information Systems, Ph.D., 2000, Indiana University
Reed, Brad J., Accounting, Ph.D., 1995, University of Arizona
Yager, Susan E., Computer Management \& Information Systems, Ph.D., 1998, University of North Texas

\section*{Associate Professors}

Belasen, Ari, Economics, Ph.D., 2007, State University of New York at Binghamton
Berkley, Robyn A., Management, Ph.D., 2001, University of Wisconsin - Madison
Demirer, Riza, Finance, Ph.D., 2003, University of Kansas - Lawrence
Evrensel, Ayse Y. (Chair), Economics, Ph.D., 1999, Clemson University
Hershberger, Edmund K. (Chair), Marketing, Ph.D., 2003, Georgia State University
Jia, Jingyi, Finance, Ph.D., 2006, Temple University
Love, Mary Sue, Management, Ph.D., 2001, University of Missouri - Columbia
Madupalli, Ramana K., Marketing, Ph.D., 2007, Georgia State University
Pannirselvam, Gertrude P., Management, Ph.D., 1995, Arizona State University
Schoenecker, Timothy S., Management, Ph.D., 1994, Purdue University

Swanson, Laura S., Management, Ph.D., 1995, Purdue University
Watson, Jr., George W., Management, Ph.D., 1997, Virginia Tech
Williams, Clay K., Computer Management \& Information Systems, Ph.D., 2007, University of Georgia

\section*{Assistant Professors}

Barber, Connie, Computer Management \& Information Systems, Ph.D., 2014, The University of North Carolina at Greensboro
Fu, Xudong, Finance, Ph.D., 2008, University of Alabama
Gross, Andrew D., Accounting, Ph.D., 2010, University of Arkansas
Hester, Andrea J., Computer Management \& Information Systems, Ph.D., 2009, University of Colorado Denver
Hoelscher, Jamie L., Accounting, Ph.D., 2013, University of Nebraska-Lincoln
Jacks, Tim, Computer Management \& Information Systems, Ph.D., 2012, The University of North Carolina at Greensboro
Jategaonkar, Shrikant P., Finance, Ph.D., 2009, University of Arizona
Kim, Sungho, Management, Ph.D., 2011, The Ohio State University
Murray, Susan M., Accounting, Ph.D., 2012, Texas Tech University
Ozcan, Timucin, Marketing, Ph.D., 2008, University of Rhode Island
Sierra, Gregory E., Accounting, Ph.D., 2004, Washington University
Zeng, Yuping, Management, Ph.D., 2007, Peking University

\section*{Instructors}

Beck, H. Lynn, Economics, M.S., 1999, Southern Illinois University Edwardsville
Brant, Steven D., Accounting, M.S., 1979, Illinois State University
Dixon, James P., Accounting, L.L.M., 1991, Washington University Law School
Hileman, Joshua E., Computer Management \& Information Systems, M.S., 1998, Southern Illinois University Edwardsville
Hunt, Jenni M., Management, M.B.A., 2004, Southern Illinois University Edwardsville
Mussulman, James E., Computer Management \& Information Systems, M.B.A., 1996, Southern Illinois University Edwardsville
Pettit, Mary Anne, Economics, M.A., 1977, University of Tennessee
Richards, Warren D., Economics, M.S., 1995, Southern Illinois University Edwardsville

Robberson, Katherine, Management, M.B.A., 2003, University of Missouri-Columbia
Sullivan, Tim S., Economics, Ph.D., 1995, University of Maryland
Unverzagt, Jill A., Computer Management \& Information Systems, M.B.A., 2000, Southern Illinois University Edwardsville
Winter, Christine, Marketing, M.B.A., 1988, Southern Illinois University Edwardsville
Wolff, Laura A., Economics, M.A., 1988, University of Missouri-Columbia

\section*{Vision}

The SIUE School of Business will be a nationally recognized premier metropolitan business school that develops highly skilled and innovative graduates who enhance businesses organizations and communities.

\section*{Mission}

Our mission in the SIUE School of Business is to engage in high-quality instruction, research, and professional activities to prepare current and future business professionals and to improve business practice. These efforts add value: for students, by enhancing their career prospects; for organizations, by developing business professionals who meet their needs and stimulate innovation; and for business disciplines, by producing and disseminating timely and relevant scholarship.
We are committed to:
■ providing a leading-edge environment for educating undergraduate, graduate and continuing education students that fosters creativity, critical thinking, ethical behavior, and an appreciation of globalization and diversity.
■ developing and sustaining partnerships with businesses and the regional community that lead to professional opportunities for students, alumni, faculty, and regional constituents.
- offering programs responsive to the needs of our key stakeholders
■ fostering a vibrant regional economy through the exchange of ideas and knowledge.
■ maintaining a highly competent administrative and support staff.
■ developing and retaining a high-quality faculty whose members strive for excellence, are current in their fields and make scholarly contributions through discipline-based, applied and pedagogical research.

\section*{Undergraduate Learning Goals}

A common set of learning goals characterizes business education at the SIUE School of Business. The goals are designed to (a) help students become effective leaders in their professions and communities and (b) reinforce the value of lifelong learning for leaders. The goals direct student learning toward mastery of content or knowledge, toward acquisition of important skills for business success, and toward the integration of knowledge and skills.

\section*{Content}

\section*{Functional Knowledge}

All undergraduate students in the School of Business should demonstrate breadth and depth of knowledge in the core business disciplines. Additionally, each student in a specialized degree program (Accountancy, Computer Management and Information Systems, or Business Economics and Finance) should demonstrate depth of knowledge in her/his chosen discipline. Each of these degree programs has specific curricular objectives in addition to those presented in this document.

\section*{External Perspective}

Undergraduate students should be prepared to manage in a dynamic and diverse business environment through awareness of
- Global, political, technological, social, economic and regulatory business contexts
- Social responsibility of organizations
- Individual responsibility and ethical behavior
- Ethnic, cultural and gender diversity

\section*{Skills}

\section*{Interpersonal Skills}

Undergraduate students should demonstrate the ability to interact effectively in a professional environment through
- Written and oral communication
- The use of leadership and motivational skills
- An understanding of individual and group dynamics

\section*{Systematic Problem Solving}

Undergraduate students should demonstrate the ability to apply analytical thinking to systematically solve business problems through
- Acquisition and evaluation of information
- Application of appropriate quantitative
models, qualitative analyses, and information technologies
- Synthesis and analysis of key issues in an uncertain environment

\section*{Integration of Knowledge}

Undergraduate students should demonstrate the ability to develop a holistic view of the business environment through the integration of their business and liberal education as well as boundary-spanning thinking that incorporates the links among business disciplines.

\section*{Accreditation}

The SIUE School of Business is among an elite 5 percent of the 11,000 business schools worldwide that have earned the prestigious seal of approval from the Association to Advance Collegiate Schools of Business (AACSB) International. The SIUE School of Business has been accredited by AACSB International since 1975, and this assures that students receive the highest quality business education. The SIUE School of Business Accountancy program also is separately accredited by AACSB International; a distinction that fewer than 200 accredited business schools achieve and maintain.

\section*{School of Business Academic Programs and Policies Applicable to all Programs}

The School of Business offers four undergraduate programs. Admission to the School of Business programs is competitive through a separate application process in addition to regular admission to Southern Illinois University Edwardsville. Information about the application process is available within the academic program sections. Students who already hold a bachelor's degree ("Seniors with Degree") are not required to submit a separate application to the School of Business; rather, they should meet with an academic advisor in the School of Business Student Services office after they have been admitted to SIUE for program advisement and program planning.

\section*{Pre-Business Status}

Before applying to the School of Business, students may enter pre-business status after completion of English 101 and Mathematics 120 and Economics 111 (or Economics 112) all with grades of C or higher and attaining a 2.25 collegiate grade point average. Once students are classified as pre-business students, they will be advised in the Office of Business Student

Services unless a student changes to a different program. Students do not have to be in prebusiness status to apply for admission to the School of Business.

\section*{Retention}

In order for a student to remain in pre-business status, a 2.25 cumulative grade point average must be maintained. Pre-business students who fail to maintain at least a 2.25 cumulative grade point average at SIUE will be placed on pre-business probation. Students will be notified when they are not meeting the cumulative grade point average retention standard and will be informed of the timeframe allowed to improve their grade point average. Students who do not meet retention requirements for two consecutive terms will be removed from the School of Business. Retention requirements for each major program appear within the academic programs section. Students are strongly encouraged to progress toward degree completion each semester.

\section*{Minors (for non-business majors)}

Non-business majors may declare the Business Administration minor pursuant to general university requirements. To declare a minor, students must be in good standing, declared into their chosen major and have at least a 2.25 cumulative grade point average. Once students are accepted as a minor, they must meet with a business advisor for an initial meeting to discuss the minor requirements. Please review the Business Administration minor requirements within the academic programs section.

\section*{Re-entry to School of Business Programs}

Former students who have not attended SIUE for three or more terms must meet program requirements in effect at the time of re-entry, including any retention or program-specific course or grade point average requirements.

\section*{Graduation}

To be eligible to graduate, students must complete all university general education requirements, all School of Business requirements and all major program requirements. Students also must achieve and maintain a cumulative, business, and major GPA as required by the particular program. Consult the particular academic program section of this catalog for additional information. Students not completing all requirements will not be eligible to receive a degree from the School of Business. Further, students will be approved to participate
in the commencement ceremonies only at the end of the term in which all graduation requirements are met. Each undergraduate business program requires the completion of a minimum of 120 semester hours of college-level credit.

Additionally, students are required to earn a grade of C or better in MGMT 441 and in the course taken to fulfill the research requirement for their specific program. Student learning will be assessed both at the junior and senior levels, and students are required to complete assessment activities in order to graduate.
Students must complete all 300- and 400-level business course requirements at SIUE or another AACSB-accredited business school. Once admitted to the School of Business, students seeking a major or minor in the School of Business must obtain prior approval from the School of Business before taking upper-level (300- or 400-level) business course work at another institution that is intended to satisfy a major or minor requirement.

\section*{Business Transitions Program}

The required Business Transitions program (GBA 301 and GBA 402) provides students with opportunities to complement their formal education with co-curricular educational experiences wherein they gather additional knowledge, skills and integrative experiences. GBA 301 and GBA 402 are required individualized learning courses designed to assist students with the transition into the School of Business and for developing knowledge and skills related to career planning including resume development and initial job search strategies. Students will be introduced to the concepts of individual responsibility and ethical behavior, social responsibility of organizations and global perspectives on business. Students will use the School and University resources dedicated to assisting them with the transition to a professional business environment and development of professional skills related to job search, professional networking, and interviewing as well as social etiquette. Students also learn how to research educational opportunities beyond college. Business students will also choose from a variety of seminars, events, and activities each semester which develop their business knowledge, perspective and interpersonal skills as well as assist in recognizing and experiencing integration of business knowledge and skills.

\section*{Attendance}

Because there is high demand for business courses, failure to attend the first class session may result in the student being dropped from the course.

\section*{Repeat Policy}

Students may repeat undergraduate business courses (ACCT, CMIS, ECON, FIN, IS 401, GBA, MS, MGMT, MKTG and PROD) at SIUE under the following conditions and restrictions: When a course is repeated, only the grade earned in the final attempt will be used in computing the grade point average. All grades will appear on the transcript.
Credits earned for any course will be applied only once toward degree requirements, no matter how often the course is repeated.
■ 100-level courses may not be repeated more than three times.

■ 200-level courses may not be repeated more than two times.
- 300- and 400-level courses may not be repeated more than one time.
The School of Business is not obligated to offer a course to provide students an opportunity to repeat a previously attempted course. If a student does not pass a 300 - or 400 -level course after the second graded attempt, one of the following options must be chosen:
1. Appeal to take the course a third time. In doing so, the student must wait one semester before appealing for re-enrollment in the course. If the student does not pass the course on the third attempt, the student must choose a major outside the School of Business. OR
2. Take the required course at another AACSB accredited institution. (A 300- or 400-level course may only be taken at an approved four-year college or university.) St. Louis University, Washington University and University of Missouri St. Louis are the only AACSB accredited institutions in the St. Louis metropolitan area. Other institutions outside the metropolitan area may be approved if they are AACSB accredited and an equivalent or appropriate substitute course is offered at that institution.

\section*{School of Business Student Services}

The School of Business Student Services Office provides professional academic advisors who help students develop academic plans to meet their program requirements and provide
guidance to students with academic problems. This office also assists students who seek career advice by suggesting the names of faculty and career development professionals who provide such assistance. Before applying for a major or minor in business, students should contact this office to obtain more information about the School's programs and the procedures for applying and completing degree requirements.

\section*{Cougar Business Resource Center}

The Cougar Business Resource Center (CBRC), is located in Founders Hall and serves as a focal point for resources, programs, and co-curricular activities designed to support the development of cross-disciplinary skills for all undergraduate students. The facility provides students an engaging and exciting environment in which they can generate ideas, share knowledge and practice critical skills. The CBRC offers small group meeting rooms where student teams can work on assignments and practice presentations, a permanent home for School of Business student organizations, a state-of-the-art conference room, a convenient place to access online resources, and an executive-in-residence office space where experienced business executives can provide guidance and mentoring for students. The CBRC was made possible through the generosity of alumni and corporate sponsorship.

\section*{International Exchange Programs}

The School of Business offers student and faculty exchange programs with business schools and universities in China, France, Germany, Great Britain, and Italy. These programs permit students to pay tuition and register for course work at SIUE while completing the requirements for credit at one of these international institutions. Participation in an exchange program will meet the international study requirement for the International Business concentration in the Business Administration program. Students interested in studying abroad may obtain more information and an application from Dr. Janice Joplin, Associate Dean and Director, International Programs, School of Business, Box 1051, SIUE, Edwardsville, IL 62026, phone (618) 650-3412.

\section*{Cooperative Education and Internships}

For enrollment certification purposes, Universitysponsored cooperative education participation is considered equivalent to full-time enrollment.

This requires formal enrollment in an approved co-op course through the Career Development Center. (See GBA 399.) The Career Development Center also coordinates business internships associated with GBA 398.

\section*{Accountancy}

Founders Hall, Room 2110
siue.edu/business/

\section*{Program Description}

Graduates of the undergraduate degree program in accountancy are prepared for employment in accounting in either the private or not-for-profit sector or for admission to a graduate program to prepare for the Uniform CPA Examination and a career in public accounting. Students receive an educational foundation which will allow them to grow professionally in the practice and study of accounting as they progress throughout their careers.

\section*{Career Opportunities}

Several career paths are available to graduates of the undergraduate program. The possibilities include employment in corporate accounting and the not-for profit sector. Graduates who work in corporate accounting may be employed as managerial accountants, internal auditors, income tax specialists, systems experts, or management consultants. Appropriate professional certifications within this segment of the accounting profession are Certified Management Accountant and Certified Internal Auditor. In the not-for-profit sector, accountants play important roles in governmental entities, health care organizations, and charitable agencies. Based on their wide range of business exposure and knowledge, many accountants ultimately move into high-level management positions. For students seeking a career in public accounting, the undergraduate program provides a foundation for successful completion of a graduate degree.
Professional certification as a certified public accountant is achieved by passing the Uniform CPA Examination. Many states, including Illinois and Missouri, require CPA candidates to accumulate 150 hours of college credit.
Most candidates will satisfy that requirement by completing a graduate degree. Graduates who work in public accounting gain exposure to a wide variety of clients, their business
practices, and their accounting methods. Public accountants may work in the areas of auditing, taxation, or management consulting.

\section*{Degree Program}

Bachelor of Science in Accountancy, Accountancy

\section*{Program Overview and General Department Information}

\section*{Admission and Application Process}

Before applying to the program, students are encouraged to consult with an advisor in the School of Business Student Services Office to discuss the application process and plan a program of study.

To be admitted to the Bachelor of Science in Accountancy program, students must:
- Complete all Academic Development courses required by the University;
■ Complete any courses required to address high school deficiencies;
- Apply for admission and be accepted into the School of Business. Students who are not accepted into a program will not be allowed to enroll in 300- or 400-level business courses and will not be eligible to declare a major in Accountancy.

\section*{Application Deadlines}

Summer Term and Fall Semester Spring Semester

March 1
October 1

\section*{Review of Applications}

The Undergraduate Admissions Committee of the School of Business will review all applications and students will be notified of their status within 45 days of the application deadline of the term for which they are seeking admission. An application to the School of Business is ready to be reviewed when all of the following criteria are met:

■ Admission to SIUE.
■ Submission of a completed undergraduate program application received by the School of Business Student Services Office by the stated deadline. Applications are available from the School of Business Web site, siue.edu/business, or in Business Student Services, on the third floor of Founders Hall. Applicants also must ensure that all transcripts from all community colleges and four-year institutions have arrived at the Service Center, Registrar's Office, Box 1080, Edwardsville, IL 62026-1080 by the application
deadline. Early completion of the application file is strongly encouraged.
■ Sophomore status ( 30 hours earned).
■ Successful completion (grade of C or higher) of any seven of the nine prerequisite courses. (Note: Students who apply for summer admission must have all 9 prerequisite courses completed by the end of the preceding spring semester. Students who apply for fall admission must have all 9 prerequisite courses completed by the end of the preceding summer term. Students who apply for spring admission must have all 9 prerequisite courses completed by the end of the preceding fall semester).
Prerequisite courses required for the School of Business

ENG 101 and 102
ACS 101
CMIS 108
ECON 111 and 112
MATH 120
ACCT 200
MS 250 (students may substitute MATH 150 for both MATH 120 and MS 250)
- minimum prerequisite grade point average of 2.25 on a 4.0 scale
- minimum cumulative grade point average of 2.50 on a 4.0 scale

\section*{Admission}

The admission decision will be based primarily on the student's performance in collegiate-level work and the required essay. Other factors that may be considered in the admission decision include, but are not limited to, courses taken, pattern and trend of grades, institutions attended, co-curricular activities, as well as career- or work-related experience. The School of Business intends to admit students who demonstrate the greatest likelihood of academic success while also ensuring the diversity of the student body.

Admission to School of Business programs is competitive, and not all students who apply to the School of Business will be admitted. Since the number of students being admitted depends on the capacity of the school, applicants cannot be guaranteed admission to the School of Business based on a given grade point average.

\section*{Transfer Students}

The application process described above must be followed. Transfer students may contact the School of Business Student Services Office
with questions regarding transferability and equivalency of business course work completed at other institutions. The School of Business accepts lower-division courses taken at other institutions only as lower-division (100- and 200-level) courses.

\section*{Students who already hold a Bachelor's Degree}

Students who already hold a bachelor's degree ("Seniors with Degree") are not required to submit a separate application to the School of Business; rather, they should meet with an academic advisor in the School of Business Student Services office after they have been admitted to SIUE for program advisement and planning.

\section*{Declaration of Major}

Once students are admitted to the School of Business, they may declare an accountancy major if they have also earned at least a 2.5 or higher cumulative grade point average. Students not declared to the accountancy major are only allowed to enroll in Accounting 301, 311 and 340. To take additional accounting courses students must be declared to the accountancy major.

\section*{Retention}

Students must achieve and remain in good standing to be retained in the accountancy program. Good standing means a student has a minimum grade point average of 2.5 cumulative, 2.5 in accounting courses and 2.25 in required business courses. Students who fail to maintain at least 2.5 cumulative and accounting grade point averages at SIUE will be placed on program probation. Students will be notified when they are not meeting the grade point average retention standards and will be informed of the timeframe allowed to improve their grade point average. Students who do not meet retention requirements for two consecutive terms will be separated from the accountancy major. Students whose cumulative grade point average is below 2.25 will be removed from the School of Business. Students remaining below a 2.5 accounting grade point average for two terms may be dropped from the accountancy program. A student also may be dropped from the accountancy program for receiving any combination of three withdrawal, incomplete, or failing grades in a single required accounting course. Students who are not in good standing will not be permitted to take ACCT 303, 401, or 431.

\section*{Degree Requirements}

\section*{Lincoln Program General Education \\ Requirements \\ * Courses that require a grade of C or higher.}

\section*{Foundations Courses ( 5 required)}

ENG 101* ENG 102* ACS 101* RA 101
QR 101 (or MATH 150)
Breadth Courses ( 6 required)
ECON 111* (meets Social Science Breadth (BSS), major requirement)
Humanities Breadth (BHUM) Course
Fine and Performing Arts Breadth (BFPA) Course
Math 120* (meets Physical Science Breadth (BPS), major requirement)
Life Sciences Breadth (BLS) Course
CMIS 108* (meets Information and Communication in Society Breadth (BICS) Course, major requirement)

\section*{Experiences Requirements}

New Freshman Seminar (CMIS 108 recommended or students can choose from the approved courses)
Laboratory Experience (EL) (MS 251, major requirement, will meet one EL science requirement)
Global Cultures Experience (EGC) (Met by IS 401, major requirement)
U.S. Cultures Experience (EUSC)

Health Experience (EH)
Additional General Education Requirements
Interdisciplinary Studies (met by IS 401, major requirement)
Bachelor of Science Requirements
To complete a Bachelor of Science degree at SIUE, students must have a total of at least eight (8) courses in the sciences (life, physical or social), including, as part of those eight courses, two (2) courses designated as labs (EL). The courses listed below are included as a part of the required courses for the major or as a part of the Breadth requirements.
1. Social, Physical, or Life Science Course (Students should choose a course with a lab, EL, to fulfill this requirement)
2. Social, Physical, or Life Science Course (Students will choose from the approved courses)
3. ECON 111* (Required for all business majors, also used for Breadth Course, see above)
4. ECON \(112^{*}\) (Required for all business majors, see below)
5. MATH 120* (Required for all business majors, also applies as a Breadth Course, see above)
6. MS 250* (Required for all business majors, see below)
7. MS 251* (Required for all business majors, see below, also meets one EL course requirement)
8. Life Science Breadth Course (also meets Breadth Requirement above)
Students should consult with an academic advisor to ensure proper completion of Lincoln Program general education requirements.
\begin{tabular}{|c|c|c|c|}
\hline \multicolumn{4}{|l|}{Accounting Major Requirements} \\
\hline ACCT 200\# & ACCT 301* & ACCT 302 & ACCT 303* \\
\hline ACCT 311* & ACCT 312 & ACCT 315 & ACCT 321 \\
\hline ACCT 340 & ACCT 401 & ACCT 431 & CMIS 108* \\
\hline CMIS 342 & ECON 111* & ECON 112* & ENG 101* \\
\hline ENG 102* & FIN 320 & GBA 301 & GBA 402 \\
\hline IS 401 & MATH 120* & MS 250*^ & MS 251* \\
\hline MGMT 330 & MGMT 331 & MGMT 441* & MKTG 300 \\
\hline PROD 315 & ACS 101* & & \\
\hline
\end{tabular}
* Courses that require a grade of C or better.
\#B or higher required.
\({ }^{\wedge}\) Students may substitute MATH 150 (with a grade of C or higher) for both MATH 120 \& MS 250 .
Research Requirement
This requirement normally will be met by taking Accounting 303 or other course specified by the department.

\section*{Sample Curriculum for the Bachelor of Science in Accountancy}Fall SemesterYear 1
CMIS 108 or CS 108-Computer Concepts(BICS)*. ..... 3
ENG 101 English Composition I* ..... 3
MATH 120 College Algebra (BPS)*^ ..... 3
ACS 101 Public Speaking* ..... 3
ECON 112 Microeconomics (BSS)* ..... 3
Total ..... 15
Year 2
ACCT 200 Fundamentals of Financial Acct\# ..... 3
MS 250 Mathematical Methods*^ ..... 3
Life (LS), Physical (PS) or Social Science (SS) ..... 3
Life Science (BLS). ..... 3
Quantitative Reasoning 101 or MATH 150 (FQR) ..... 3
Total ..... 15
Admission to the School of Business is required to enroll in any 300- or
400-level business courses.
Year 3

Year 3
ACCT 301 Intermediate Accounting Theory \& Practice I* ..... 3
ACCT 315 Accounting Systems ..... 3
MGMT 330 Understanding the Business Environment ..... 3
GBA 301 - Business Transitions ..... 1
Elective ..... 3
Total ..... 13
Year 4
ACCT 303 Intermediate Acct Theory \& Practice III*. ..... 3
ACCT 312 Managerial Cost Accounting II .....  3
ACCT 340 Business Law ..... 3
FIN 320 Financial Management (ACCT 311 is a prerequisite) ..... 3
CMIS 342 Information Systems for Business ..... 3
Total ..... 15
Spring Semester
Year 1
ECON 111 Macroeconomics (BSS)* ..... 3
ENG 102 English Composition II* ..... 3
Humanities (BHUM) ..... 3
RA 101, PHIL 213 (RA) ..... 3
Fine and Performing Arts (BFPA) ..... 3
Total ..... 15
Year 2
MS 251 Statistical Analysis for Business Decisions* (EL) ..... 4
Health Experience (EH) ..... 3
Life (LS), Physical (PS) or Social Science (SS) (EL) ..... 3
U. S. Cultures Course (EUSC). ..... 3
Elective ..... 3
Total ..... 16

ACCT 302 - Intermediate Accounting Theory \& Practice II . . . . . 3
ACCT 311 - Managerial \& Cost Acct \({ }^{*}\). . . . . . . . . . . . . . . . . . . . . 3
MGMT 331-Managing Group Projects . . . . . . . . . . . . . . . . . . . . 3
MKTG 300 - Principles of Marketing . . . . . . . . . . . . . . . . . . . . . . 3
PROD 315-Operations Management . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15
Year 4
ACCT 321 Introduction to Taxation . . . . . . . . . . . . . . . . . . . . . . . . 3
ACCT 401 Advanced Financial Acct . . . . . . . . . . . . . . . . . . . . . . . 3
ACCT 431 Principles of Auditing . . . . . . . . . . . . . . . . . . . . . . . . . . 3
MGMT 441 Strategic Management* . . . . . . . . . . . . . . . . . . . . . . 3
IS 401 Business \& Society (EGC) . . . . . . . . . . . . . . . . . . . . . . . . . 3
GBA 402 Business Transitions II . . . . . . . . . . . . . . . . . . . . . . . . . . 1
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16
* Courses that require a grade of C or better.
\({ }^{\wedge}\) Students may substitute MATH 150 (with a grade of C or better) for MATH 120 and MS 250 .
\# B or higher required.

\section*{Graduation Requirements}

Cumulative University grade point average required: 2.5

Accounting grade point average (in all required accounting courses taken at SIUE): 2.5

Business grade point average (in all required business courses taken at SIUE): 2.25

C or higher in Management 441 (meets
University Senior Assignment)
C or higher in courses marked with * in course
Degree Requirements section

\section*{Business Administration}

\author{
Founders Hall, Room 3307 \\ siue.edu/business
}

\section*{Program Description}

The degree program in business administration provides students with a basic understanding of the functional areas of business, the behavior of organizations, and decision-making processes. These courses provide students with (a) quantitative and analytical skills, (b) an understanding of the economic, social, political, and legal environments in which business decisions are made, (c) knowledge of accounting and information systems, (d) insights into organizational behavior, development, goal setting, and management of human resources, (e) an understanding of the ethical and global issues confronting business, and (f) leadership and team-building skills through the student's analysis of business cases and other experiential exercises.
In addition to the general business administration major, students may elect to pursue an approved specialization. Students are encouraged to select their specializations and electives in consultation with the faculty and an academic advisor in Business Student Services.

\section*{Career Opportunities and Areas of Specialization}

Students seeking a bachelor of science in business administration may complete one of the specializations described below. Students are encouraged to discuss their career objectives and the various elective courses with faculty in the School of Business before making this decision. The School of Business Student Services Office may be contacted for a list of the specializations and their requirements.

\section*{Economics}

The specialization in economics provides students with knowledge of analytical methods for solving basic problems affecting profit and growth of the business organization. In addition, economics offers courses that are fundamental to forecasting, planning, and budgeting. Graduates of the program are qualified for careers in administration and management of business firms, in banking and insurance, and in federal, state and local government agencies. Graduation with this specialization requires a 2.25 grade point average in all economics courses.

\section*{Entrepreneurship}

The entrepreneurship specialization focuses on the special problems of new venture development and the management of the small business enterprise. The specialization prepares students for entrepreneurial and managerial roles in small ventures as well as for new venture management and "intrapreneurship" roles in larger firms. By carefully selecting courses in other areas of business, students can prepare for positions in manufacturing, service, or retailing organizations. The specialization requires a practicum (MGMT 476) in which students work with start-up ventures, small businesses, or small business development groups to apply their knowledge to small business problems.

\section*{Finance}

The finance specialization prepares students for decision-making positions in the areas of corporate finance, investments, and management of financial institutions. Courses in finance are designed to help students understand the complex world of global finance and business. The specialization emphasizes financial knowledge and skills that are necessary to succeed in today's diverse and highly technical business world.

\section*{Human Resource Management}

The human resource management specialization provides students with the general and technical knowledge and skills for entry-level positions and careers in the personnel or human resource management (HRM) function of organizations. Courses emphasize both the general theory of HRM, the expanding role of HRM in organizational effectiveness, the development and effective use of human resources in organizations, and the technical areas of selection, compensation, labor relations, training, and performance appraisal. The specialization prepares students for professional careers in a wide variety of organizations.

\section*{International Business}

The international business specialization is an interdepartmental specialization emphasizing the increasingly global dimensions of business. Through courses focusing on the international dimensions of management, marketing, finance, and economics, students gain an understanding of the international aspects of business. The specialization is designed for students interested in positions in the areas of international trade and finance and industrial development. The School of Business also has agreements with
several foreign universities through which students can experience the international aspects of education and work as well as enhance their foreign language capabilities.

\section*{Management}

The management specialization provides students with the knowledge and skills necessary to become effective managers in organizations. The courses in this specialization emphasize the complex nature of organizations and the skills and knowledge necessary to manage human resources, design effective organizational systems, and diagnose and solve organizational problems. In addition, the specialization emphasizes the increasingly global nature of business and coping with change in internal and external environments. The specialization provides the flexibility to accommodate students with a variety of interests and prepares them for managerial careers in private and public sector organizations.

\section*{Management Information Systems}

The management information systems specialization is designed to prepare students to work with business computer technology. Students learn to design information systems to support decision making and the operation of business and organization functional areas. The design process includes the specification of hardware, software, and personnel requirements. Students must maintain a 2.5 GPA in all CMIS courses.

\section*{Marketing}

The marketing specialization is designed to enable students to analyze the problems of providing consumer and industrial goods and services to a wide variety of markets. The curriculum prepares students for positions in sales, advertising, promotion, research, product management, and marketing management. Further, the study of dynamic problems that affect all enterprises in communicating with their constituencies prepares students for careers in commercial, governmental, and service organizations that serve the public in ways other than producing tangible goods.

\section*{General Business Administration}

Those who do not elect a specialization must take four Business courses beyond the common business core. Four approved 300 - and/or 400-level business or non-business courses must be completed and students are required to propose courses and rationale for request. Students are encouraged to select their electives
in consultation with the faculty and an academic advisor in Business Student Services.

\section*{Degree Programs}

Bachelor of Science, Business Administration Specializations Available in the following: Economics Entrepreneurship
Finance
Human Resource Management
International Business
Management
Management Information Systems Marketing

\section*{Program Overview and General Department Information}

\section*{Admission and Application Process}

Before applying to the program, students are encouraged to consult with an advisor in the School of Business Student Services Office to discuss the application process and plan a program of study.

To be admitted to the Bachelor of Science in Business Administration program, students must:

■ Complete all Academic Development courses required by the University;
■ Complete any courses required to address high school deficiencies;
■ Apply for admission and be accepted into the School of Business. Students who are not accepted into a program will not be allowed to enroll in 300 - or 400 - level business courses and will not be eligible to declare a major in Business Administration.

\section*{Application Deadlines}

Summer Term and Fall Semester
March 1
Spring Semester
October 1

\section*{Review of Applications}

The Undergraduate Admissions Committee of the School of Business will review all applications and students will be notified of their status within 45 days of the application deadline of the term for which they are seeking admission. An application to the School of Business is ready to be reviewed when all of the following criteria are met:
- Admission to SIUE.

■ Submission of a completed undergraduate program application received by the School of Business Student Services Office by the stated deadline. Applications are available from the School of Business Web site, siue.edu/business,
or in Business Student Services, on the third floor of Founders Hall. Applicants also must ensure that all transcripts from all community colleges and four-year institutions have arrived at the Service Center, Registrar's Office, Box 1080, Edwardsville, IL 62026-1080 by the application deadline. Early completion of the application file is strongly encouraged.
■ Sophomore status (30 hours earned).
- Successful completion (grade of C or higher) of any seven of the nine prerequisite courses. (Note: Students who apply for summer admission must have all 9 prerequisite courses completed by the end of the preceding spring semester. Students who apply for fall admission must have all 9 prerequisite courses completed by the end of the preceding summer term. Students who apply for spring admission must have all 9 prerequisite courses completed by the end of the preceding fall semester).
Prerequisite courses required for the School of Business
ENG 101 and 102
ACS 101
CMIS 108
ECON 111 and 112
MATH 120
ACCT 200
MS 250 (students may substitute MATH 150 for both MATH 120 and MS 250)
\(\square\) minimum prerequisite grade point average of 2.25 on a 4.0 scale
\(\square\) minimum cumulative grade point average of 2.25 on a 4.0 scale

\section*{Admission Decision}

The admission decision will be based primarily on the student's performance in collegiate-level work and the required essay. Other factors that may be considered in the admission decision include, but are not limited to, courses taken, pattern and trend of grades, institutions attended, co-curricular activities, as well as career- or work-related experience. The School of Business intends to admit students who demonstrate the greatest likelihood of academic success while also ensuring the diversity of the student body.
Admission to School of Business programs is competitive, and not all students who apply to the School of Business will be admitted. Since the number of students being admitted depends on the capacity of the school, applicants cannot be guaranteed admission to the School of Business based on a given grade point average.

\section*{Transfer Students}

The application process described above must be followed. Transfer students may contact the School of Business Student Services Office with questions regarding transferability and equivalency of business course work completed at other institutions. The School of Business accepts lower-division courses taken at other institutions only as lower-division (100- and 200-level) courses.

\section*{Students who already hold a Bachelor's Degree}

Students who already hold a bachelor's degree (Seniors with Degree) are not required to submit a separate application to the School of Business; rather, they should meet with an academic advisor in the School of Business Student Services office after they have been admitted to SIUE for program advisement and planning.

\section*{Declaration of Major}

Once students are admitted to the School of Business, they may declare a business administration major if they have also earned at least a 2.25 or higher cumulative grade point average.

\section*{Retention}

Once declared into the Business Administration program, students must achieve and maintain at least a 2.25 cumulative grade point average. Students who fail to maintain at least a 2.25 cumulative grade point average at SIUE will be placed on program probation. Students will be notified when they are not meeting the cumulative grade point average retention standard and will be informed of the timeframe allowed to improve their grade point average. Students who do not meet retention requirements for two consecutive terms will be separated from the business administration major and will be removed from the School of Business.

\section*{Degree Requirements}

\section*{Lincoln Program General Education Requirements}
* Courses that require a grade of C or higher. Foundation Courses ( 5 required)
ENG 101* ENG 102* ACS 101* RA 101 QR 101
Breadth Area Courses (6 required)
ECON 111* (meets Social Science Breadth (BSS), major requirement)
Humanities Breadth (BHUM) Course

Fine and Performing Arts Breadth (BFPA) Course
Math 120* (meets Physical Science Breadth (BPS), major requirement)
Life Sciences Breadth (BLS) Course
CMIS 108* (meets Information and Communication in Society Breadth (BICS) Course, major requirement)

\section*{Experiences Requirements}

New Freshman Seminar (CMIS 108 recommended or students can choose from the approved courses)
Laboratory Experience (EL) (MS 251, major requirement, will meet one EL science requirement)
Global Cultures Experience (EGC) (Met by IS 401, major requirement)
U.S. Cultures Experience (EUSC)

Health Experience (EH)
Additional General Education Requirements Interdisciplinary Studies (met by IS 401, major requirement)

\section*{Bachelor of Science Requirements}

To complete a Bachelor of Science degree at SIUE, students must have a total of at least eight (8) courses in the sciences (life, physical or social), including, as part of those eight courses, two (2) courses designated as labs (EL). The courses listed below are included as a part of the required courses for the major or as a part of the Breadth Area requirements.
1. Social, Physical, or Life Science Course (Students must choose a course with a lab, EL, to fulfill this requirement)
2. Social, Physical, or Life Science Course (Students will choose from the approved courses)
3. ECON 111* (Required for all business majors, also used for Breadth Area Course, see above)
4. ECON \(112^{*}\) (Required for all business majors, see above)
5. MATH 120* (Required for all business majors, also used for Breadth Area Course, see above)
6. MS 250* (Required for all business majors, see below)
7. MS 251* (Required for all business majors, see below)
8. Life Science Breadth Course (See Breadth Area Life Sciences course above)
Students should consult with an academic advisor to ensure proper completion of Lincoln Program general education requirements.
\begin{tabular}{|c|c|c|c|}
\hline \multicolumn{4}{|l|}{Business Administration Major Requiremen} \\
\hline ACCT 200* & ACCT 210 * & CMIS108* & CMIS 342 \\
\hline ECON 111* & ECON 112* & ENG 101* & ENG 102* \\
\hline FIN 320 & GBA 301 & GBA 402 & MATH 120 \\
\hline MGMT 330 & MGMT331 & MGMT 441 & MS 250 \\
\hline MS 251* & MKTG 300 & PROD 315 & IS 401 \\
\hline \multicolumn{4}{|l|}{\multirow[t]{2}{*}{ACS 101* Business Elective Re Specialization Courses (See below)}} \\
\hline & & & \\
\hline \multicolumn{4}{|l|}{*Courses that require a grade of C or better} \\
\hline \multicolumn{4}{|l|}{\({ }^{\wedge}\) Students may substitute MATH 150 (with a grade of C or higher) for both MATH 120 \& MS 250} \\
\hline \multicolumn{4}{|l|}{+Research Requirement*: To be selected from the following list of courses that contain a significant research component: ECON 417, FIN 430, MKTG 377, MS 312,} \\
\hline
\end{tabular}

CMIS 470

\section*{Specialization Courses}

Students must complete one of the following specializations as a part of the degree requirements. Students completing two or more specializations must satisfy all requirements for each specialization. Courses used for one specialization may not be used to satisfy requirements for another specialization.

\section*{Economics}
(Five courses required; 2.25 GPA in all Economics courses required)
ECON 301 ECON 302 ECON Elective
ECON Elective ECON Elective
Economics Electives should be chosen from 300-and 400-level Economics courses.
Entrepreneurship
(Four courses required)
MGMT 430 MGMT 475 MGMT 476
Plus one of the following:
MGMT 431 MGMT 432 MGMT 433 MGMT 451
MGMT 461 MGMT 485
Finance
(Five courses required; C or higher required in FIN 320)
FIN \(420 \quad\) FIN 430* (also meets research requirement)
FIN 460 FIN Elective FIN Elective
Finance Electives should be chosen from 300and 400-level Finance courses.

\section*{General Business Administration - No Specialization}
(Four courses required)
Four approved 300-and/or 400-level business or non-business courses. Students are required to propose courses and rationale for request.

\section*{Human Resource Management}
(Five courses required)
MGMT 430 MGMT 431 MGMT 432 MGMT 433
Plus one of the following:
\begin{tabular}{llll} 
MGMT 451 & MGMT 485 & ECON 331 & PSYC 320 \\
PSYC 473 & SOC 304 & SOC 338 & SOC 431 \\
SOC 444 & ACS 300 & ACS 403 &
\end{tabular}

International Business
Students must complete Foreign Language/Study Abroad Options described below and complete four business courses focused on International Business.

Option A: FL 111x, FL 101, 102, 201, 202, 301, one 300- or 400-level FL Elective and one full semester of study abroad totaling 12-15 hrs.
or
Option B: FL 111x, FL 101, 102, 201, 202, 301, and two
300 - or 400-level FL electives and 3 hours of study abroad. All International Business students must complete four of the following:
ECON 361 ECON 461 FIN 450 MKTG 476
MGMT 461

\section*{Management}
(Four courses required)
MGMT 430
Plus three of the following:
MGMT 451 MGMT 461 MGMT 475 MGMT 485
One of MGMT 431 or MGMT 432 or MGMT 433
Note: Students may substitute one of the following for one of the above choices:
PSYC 365 PSYC 474 SOC 338 POLS 320
ACS 403
Management Information Systems
(Five courses required)
2.5 GPA in all CMIS courses required.

Students must be declared into this specialization
to register for 300- and 400-level CMIS courses.

Students who plan to seek future employment with companies using systems based on COBOL are also urged to take CMIS 260.
CMIS 130 CMIS 270 CMIS 310 CMIS 450
CMIS 468
Marketing
(Five courses required)
MKTG 377 * (also meets research requirement)
MKTG 480
Plus three of the following:
\begin{tabular}{llll} 
MKTG 466 & MKTG 467 & MKTG 468 & MKTG 470 \\
MKTG 471 & MKTG 472 & MKTG 474 & MKTG 475 \\
MKTG 476 & MKTG 478 & MKTG 479 &
\end{tabular}

\section*{Sample Curriculum for the Bachelor of Science - Business Administration}
Specializations: Management Information Systems, Economics, Entrepreneurship, Finance, General Business Administration, Human Resource Management, International Business, Management, Marketing

Fall Semester
Year 1 Year 1
CMIS 108 or CS 108 -Computer Concepts(BICS)*. . . . . . . . . . . 3
ECON 112-Microeconomics* . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
ENG 101 -English Composition I* . . . . . . . . . . . . . . . . . . . . . . . 3
MATH 120 -College Algebra*^ (BPS) . . . . . . . . . . . . . . . . . . . . . . 3
ACS 101 -Public Speaking* . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total .............................................................. . . . 15
Year 2
ACCT 200 - Fundamentals of Financial Accounting* . . . . . . . . . 3
Humanities (BHUM) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Elective. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Quantitative Reasoning 101, MATH 150 or Higher. . . . . . . . . . . . 3
U.S Cultures Course (EUSC). . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3

Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15
Admission to the School of Business is required to enroll in 300 - or 400 -level Business courses

Year 3
ACCT 210 - Managerial Accounting* . . . . . . . . . . . . . . . . . . . . . 3
MGMT 330-Understanding the Bus Environment. . . . . . . . . . . . . 3
MKTG 300 - Principles of Marketing . . . . . . . . . . . . . . . . . . . . . . 3
Life (LS), Physical (PS) or Social Science (SS) (EL) . . . . . . . . . . 3
GBA 301 - Business Transitions I. . . . . . . . . . . . . . . . . . . . . . . . . . 1
MGMT 331-Managing Group Projects . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16
Year 4
IS 401 - Business \& Society (EGC) . . . . . . . . . . . . . . . . . . . . . . . 3
PROD 315-Operations Management . . . . . . . . . . . . . . . . . . . . . 3
Specialization Course . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Specialization Course . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15

\section*{Spring Semester}

ECON 111 -Macroeconomics* (BSS) . . . . . . . . . . . . . . . . . . . . . 3
ENG 102 - English Composition II* . . . . . . . . . . . . . . . . . . . . . . . . 3
MS 250 - Mathematical Methods \({ }^{*}\). . . . . . . . . . . . . . . . . . . . . . . . 3
RA 101 or PHIL 213. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Life Science (BLS). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15

\section*{Year 2}

MS 251 - Statistical Analysis for Business Decisions* (EL) . . . . . 4
Elective. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Fine \& Performing Arts (BFPA) . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Life (LS), Physical (PS) or Social Science (SS) . . . . . . . . . . . . . . 3
Health Experience (EH). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16

Year 3
CMIS 342 - Info Systems for Business . . . . . . . . . . . . . . . . . . . . . 3
FIN 320 - Financial Management . . . . . . . . . . . . . . . . . . . . . . . . . 3
Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Specialization Course . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12

\section*{Year 4}

MGMT 441 - Strategic Management* . . . . . . . . . . . . . . . . . . . . . 3
Research Requirement* . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Business Elective (300-400 level) . . . . . . . . . . . . . . . . . . . . . . . . . 3
Specialization Course . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Specialization Course (or Elective) . . . . . . . . . . . . . . . . . . . . . . . 3
GBA 402 Business Transitions II . . . . . . . . . . . . . . . . . . . . . . . . . 1
Total .............................................................. . . . . 16

\footnotetext{
* C or higher required.
^ Students may substitute MATH 150 (with a grade of C or better) for MATH 120 and MS 250 .
}

\section*{Graduation Requirements}

Cumulative SIUE grade point average required: 2.25

Business grade point average required (in all required business courses taken at SIUE): 2.25
C or higher in Management 441 (University Senior Assignment)
C or higher in courses marked with * in Degree Requirements section
Other Specialization grade point average requirements apply as listed in the Degree Requirements section.

\section*{Business Administration Minor for Non-Business Majors}

Students who have declared their major in a non-business field may earn a minor in business administration. Students majoring in Accountancy, Business Administration, Business Economics and Finance or Computer Management and Information Systems are not allowed to minor in Business Administration. To declare a minor in business administration, students must have a cumulative grade point average of 2.25 or above. To earn a minor in business administration, students must complete a minimum of 21 credit hours (maximum of 30 credit hours) in approved course work as specified below:

\section*{Required Courses}

ECON 111
ECON 112
ACCT 200

\section*{Business Elective Courses}

Minimum required 12 hours
Maximum allowed 21 hours
To fulfill their Business Electives requirements, students may choose from any course offered through the academic departments and disciplines in the School of Business (Accounting, CMIS, Economics \& Finance, and Management \& Marketing); however, CMIS 108 and MS 250 cannot be used for electives in the business administration minor. College of Arts and Sciences economics majors may not count ECON 111, ECON 112, or any economics major course in the 21 hours required for the Business Administration minor. Students must meet all stated course prerequisites to enroll in any business course. Students should consult with a business advisor and choose business electives that are related to the their educational and career objectives.

\section*{Graduation Requirements}

To earn a minor in business administration, students must complete a minimum of 12 hours in business courses at SIUE and maintain a cumulative GPA of at least 2.25 in all course work used for the minor.

\section*{Business Economics and Finance}

\author{
Alumni Hall, Room 3129
}
siue.edu/business

\section*{Program Description}

The bachelor of science in business economics and finance prepares students for a variety of career paths: entry-level positions in financial analysis and services or in many areas of government service; graduate study in economics, finance, or business; and the study of business-related areas of law. Majors with strong academic records can complete the master's in economics and finance in one additional year.

\section*{Career Opportunities}

Financial analysts work in commercial and investment banks, brokerage houses, mutual funds, life and health insurance companies, real estate investment trusts, pension funds, and corporate finance departments of nontraditional businesses. Students also will find that this degree prepares them well for many positions with government agencies, particularly those offices addressing budget, revenues, debt management, forecasting, or economic development. This curriculum also provides a solid foundation for students interested in attending law school, especially in tax, antitrust, corporate (mergers and acquisitions) or securities law specialties. Students interested in other areas of economics or law may wish to enroll in one of the economics degree programs offered through the College of Arts and Sciences. (See the College of Arts and Sciences section of this catalog.)

\section*{Degree Program}

Bachelor of Science, Business Economics and Finance

\section*{Program Overview and General Department Information}

\section*{Admission and Application Process}

Before applying to the program, students are encouraged to consult with an advisor in the School of Business Student Services Office to discuss the application process and plan a program of study.

To be admitted to the Bachelor of Science in Business Economics and Finance program, students must:
- Complete all Academic Development courses required by the University;
- Complete any courses required to address high school deficiencies;
- Apply for admission and be accepted into the School of Business. Students who are not accepted into a program will not be allowed to enroll in 300- or 400-level business courses and will not be eligible to declare a major in Business Economics and Finance.

\section*{Application Deadlines}

Summer Term and Fall Semester
Spring Semester
March 1
October 1

\section*{Review of Applications}

The Undergraduate Admissions Committee of the School of Business will review all applications and students will be notified of their status within 45 days of the application deadline of the term for which they are seeking admission. An application to the School of Business is ready to be reviewed when all of the following criteria are met:
- Admission to SIUE.
- Submission of a completed undergraduate program application received by the School of Business Student Services Office by the stated deadline. Applications are available from the School of Business Web site, siue.edu/ business, or in Business Student Services, on the third floor of Founders Hall. Applicants also must ensure that all transcripts from all community colleges and four-year institutions have arrived at the Service Center, Registrar's Office, Box 1080, Edwardsville, IL 62026-1080 by the application deadline. Early completion of the application file is strongly encouraged.
■ Sophomore status (30 hours earned).
- Successful completion (grade of C or higher) of any seven of the nine prerequisite courses. (Note: Students who apply for summer admission must have all 9 prerequisite
courses completed by the end of the preceding spring semester. Students who apply for fall admission must have all 9 prerequisite courses completed by the end of the preceding summer term. Students who apply for spring admission must have all 9 prerequisite courses completed by the end of the preceding fall semester).
Prerequisite courses required for the School of Business
ENG 101 and 102
ACS 101
CMIS 108
ECON 111 and 112
MATH 120
ACCT 200
MS 250 (students may substitute MATH 150
for both MATH 120 and MS 250)
- minimum prerequisite grade point average of 2.25 on a 4.0 scale

■ minimum cumulative grade point average of 2.25 on a 4.0 scale

\section*{Admission}

The admission decision will be based primarily on the student's performance in collegiate-level work and the required essay. Other factors that may be considered in the admission decision include, but are not limited to, courses taken, pattern and trend of grades, institutions attended, co-curricular activities, as well as career- or work-related experience. The School of Business intends to admit students who demonstrate the greatest likelihood of academic success while also ensuring the diversity of the student body.
Admission to School of Business programs is competitive, and not all students who apply to the School of Business will be admitted. Since the number of students being admitted depends on the capacity of the school, applicants cannot be guaranteed admission to the School of Business based on a given grade point average.

\section*{Transfer Students}

The application process described above must be followed. Transfer students may contact the School of Business Student Services Office with questions regarding transferability and equivalency of business course work completed at other institutions. The School of Business accepts lower-division courses taken at other institutions only as lower-division (100- and 200-level) courses.

\section*{Students who already hold a Bachelor's Degree}

Students who already hold a bachelor's degree
(Seniors with Degree) are not required to submit
a separate application to the School of Business; rather, they should meet with an academic advisor in the School of Business Student Services office after they have been admitted to SIUE for program advisement and program planning.

\section*{Declaration of Major}

Once students are admitted to the School of Business, they may declare a business economics and finance major if they have also earned at least a 2.25 or higher cumulative grade point average.

\section*{Retention}

Once declared into the business economics and finance program, students must maintain at least a 2.25 cumulative grade point average. Students who fail to maintain at least a 2.25 cumulative grade point average at SIUE will be placed on program probation. Students will be notified when they are not meeting the cumulative grade point average retention standard and will be informed of the timeframe allowed to improve their grade point average. Students who do not meet retention requirements for two consecutive terms will be separated from the business economics and finance major and will be removed from the School of Business.

\section*{Lincoln Program General Education Requirements}
* Courses that require a grade of C or higher.

Foundations Courses (5 required)
ENG 101* ENG 102* ACS 101* RA 101
QR 101
Breadth Courses ( 6 required)
ECON 111* (meets Social Science Breadth (BSS), major requirement)
Humanities Breadth (BHUM) Course
Fine and Performing Arts Breadth (BFPA) Course
Math 120* (meets Physical Science Breadth (BPS), major requirement)
Life Sciences Breadth (BLS) Course
CMIS 108* (meets Information and Communication in Society Breadth (BICS) Course, major requirement)
Experiences Requirements
New Freshman Seminar (CMIS 108 recommended or students can choose from the approved courses)
Laboratory Experience (MS 251, major requirement, will meet one EL science requirement)
Global Cultures Experience (Met by IS 401, major requirement)
U.S. Cultures Experience

Health Experience

\section*{Additional General Education Requirements}

Interdisciplinary Studies (met by IS 401)

\section*{Bachelor of Science Requirements}

To complete a Bachelor of Science degree at SIUE, students must have a total of at least eight (8) courses in the sciences (life, physical or social), including, as part of those eight courses, two (2) courses designated as labs (EL). The courses listed below are included as a part of the required courses for the major or as a part of the Breadth Area requirements.
1. Social, Physical, or Life Science Course (Students must choose a course with a lab, EL, to fulfill this requirement)
2. ECON 301 (Required for all Business Economics and Finance majors)
3. ECON 111* (Required for all business majors, also used for Breadth Area Course, see above)
4. ECON \(112^{*}\) (Required for all business majors, see above)
5. MATH \(120^{*}\) (Required for all business majors, also used for Breadth Area Course, see above)
6. MS \(250^{*}\) (Required for all business majors, see below)
7. MS \(251^{*}\) (Required for all business majors, see below, also meets one EL course requirement)
8. Life Science Breadth Course (See Breadth Area Requirements above)

Students should consult with an academic advisor to ensure proper completion of Lincoln Program general education requirements.
\begin{tabular}{|c|c|c|c|}
\hline \multicolumn{4}{|l|}{Business Economics and Finance Major Requirements} \\
\hline ACCT 200* & ACCT 210* & CMIS 108* & CMIS 342 \\
\hline ECON 111* & ECON \(112^{*}\) & ENG 101* & ENG \(102^{*}\) \\
\hline FIN 320* & GBA 301 & GBA 402 & MATH 120*^ \\
\hline MGMT 330 & MGMT 331 & MGMT 441* & MKTG 30 \\
\hline MS 250*^ & MS 251* & PROD 315 & IS 40 \\
\hline ACS 101* & ECON 301 & ECON 302 & \\
\hline ECON or FIN & 15* or 417* & FIN 420 & FIN 430* \\
\hline \multicolumn{4}{|l|}{*Courses that require a grade of C or better} \\
\hline \multicolumn{4}{|l|}{^Students may substitute MATH 150 (with a grade of C or better) for both MATH 120 \& MS 250} \\
\hline
\end{tabular}

From the following elective groups, students must choose two courses from Economics, one course from Finance, and one course from International. (Courses cannot be cross applied to the different elective areas even if they appear on more than one list.)
Two of the following Economics courses:
ECON 221 ECON 327 ECON 331 ECON 341
ECON 344 ECON 345 ECON 361 ECON 400
ECON415 ECON417 ECON435 ECON445
ECON 461
One of the following Finance courses:
\begin{tabular}{llll} 
FIN 341 & FIN 344 & FIN 400 & FIN415 \\
FIN 417 & FIN 431 & FIN 435 & FIN440 \\
FIN 450 & FIN 460 & FIN 470 & FIN 480
\end{tabular}

One of the following International courses:
ECON \(461 \quad\) FIN 450

\section*{Sample Curriculum for the Bachelor of Science in Business Economics and Finance}
\begin{tabular}{|c|c|}
\hline Fall Semester & Spring Semester \\
\hline Year 1 & Year 1 \\
\hline ECON 112 -Microeconomics* . . . . . . . . . . . . . . . . . . . . . . . . 3 & ECON 111 - Macroeconomics (BSS)* . . . . . . . . . . . . . . . . . . . 3 \\
\hline CMIS 108 or CS 108 -Computer Concepts(BICS)*. . . . . . . . . . 3 & ENG 102 - English Composition II*. . . . . . . . . . . . . . . . . . . . . . 3 \\
\hline ENG 101 -English Composition I* . . . . . . . . . . . . . . . . . . . . . 3 & MS 250 -Mathematical Methods \({ }^{*}\) * . . . . . . . . . . . . . . . . . . . . . 3 \\
\hline MATH 120 -College Algebra (BPS) \({ }^{\wedge}\) * . . . . . . . . . . . . . . . . . . . 3 & RA 101 or PHIL 213. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 \\
\hline ACS 101 -Public Speaking* . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 & Life Science (BLS). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 \\
\hline Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15 & Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15 \\
\hline Year 2 & Year 2 \\
\hline ACCT 200 -- Financial Accounting* . . . . . . . . . . . . . . . . . . . . 3 & ECON 301 - Intermediate Microeconomic Theory . . . . . . . . . . . 3 \\
\hline MS 251 - Statistical Analysis for Business Decisions* (EL) . . . . . 4 & ECON 302 - Intermediate Macroeconomic Theory . . . . . . . . . . . 3 \\
\hline Humanities (BHUM) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 & ACCT 210 - Managerial Accounting* . . . . . . . . . . . . . . . . . . . . 3 \\
\hline Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 & QR 101, MATH 150 or Higher . . . . . . . . . . . . . . . . . . . . . . . . . . 3 \\
\hline U.S. Cultures Requirement (EUSC) . . . . . . . . . . . . . . . . . . . . . . 3 & Fine \& Performing Arts (BFPA) . . . . . . . . . . . . . . . . . . . . . . . . . . 3 \\
\hline Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16 & Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15 \\
\hline Admission to the School of Business is required to enroll in any 300 - or 400 -level business courses. & \\
\hline Year 3 & Year 3 \\
\hline FIN 320 - Financial Management \& Decision Making*. . . . . . . . . 3 & ECON Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 \\
\hline Health Experience Requirement (EH) . . . . . . . . . . . . . . . . . . . 3 & FIN 420 - Problems in Corporate Finance. . . . . . . . . . . . . . . . . 3 \\
\hline MGMT 330-Understanding the Bus Environ. . . . . . . . . . . . . . 3 & MGMT 331-Managing Group Projects . . . . . . . . . . . . . . . . . . . 3 \\
\hline Life (LS), Physical (PS) or Social Science (SS) (EL) . . . . . . . . . 3 & MKTG 300 - Principles of Marketing . . . . . . . . . . . . . . . . . . . . 3 \\
\hline GBA 301 - Business Transitions I. . . . . . . . . . . . . . . . . . . . . . . . 1 & PROD 315 - Prod \& Operations Management. . . . . . . . . . . . . . 3 \\
\hline Electives . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 & Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15 \\
\hline Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16 & \\
\hline Year 4 & Year 4 \\
\hline ECON 461 - Intl. Trade Theory/Policy or FIN 450 - Intl. Finance . . 3 & FIN 430 - Portfolio Analysis\#\#. . . . . . . . . . . . . . . . . . . . . . . . . . 3 \\
\hline ECON/FIN 415-Econometrics\#\# or & FIN Elective. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 \\
\hline ECON/FIN 417 - Business Forecasting\#\# . . . . . . . . . . . . . . . 3 & IS 401 - Business \& Society (EGC) . . . . . . . . . . . . . . . . . . . . . . . 3 \\
\hline FIN 460 - Corp Financial Analysis \& Strategy . . . . . . . . . . . . . . 3 & MGMT 441 - Strategic Management* . . . . . . . . . . . . . . . . . . . 3 \\
\hline ECON Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3 & GBA 402 - Business Transitions II . . . . . . . . . . . . . . . . . . . . . . . 1 \\
\hline CMIS 342 - Information Systems for Business . . . . . . . . . . . . . 3 & Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 13 \\
\hline Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15 & \\
\hline \multicolumn{2}{|l|}{* C or higher required.} \\
\hline \(\wedge\) Students may substitute MATH 150 (with a grade of C or better) for M & 120 and MS 250. \\
\hline \multicolumn{2}{|l|}{\#\# In order to meet the research requirement, a grade of C or better is required in ECON/FIN 415, 417 or FIN 430.} \\
\hline
\end{tabular}

\section*{Graduation Requirements}

Cumulative SIUE grade point average required: 2.25

Business grade point average required (in all required business courses taken at SIUE): 2.25
C or higher in Management 441 (University Senior Assignment)
C or higher in courses marked with * in Degree Requirements section.
Other grade point average requirements apply as listed in the Degree Requirements section.

Present research projects from ECON 415 or ECON 417 or FIN 430 to the faculty.

\title{
Computer Management and Information Systems
}

\author{
Founders Hall, Room 2310 \\ siue.edu/business
}

\section*{Program Description}

The bachelor of science in computer management and information systems prepares students for entry into a professional career in business computing. The program is designed to provide students with skills in business systems analysis and design, business systems implementation, database design and implementation, and communications systems design. Students also obtain a breadth of knowledge in the business disciplines, including accounting, economics, finance, management, and marketing. This combination of education in the computing discipline and the business disciplines is widely sought by employers today.

\section*{Career Opportunities}

The demand for graduates with an undergraduate degree in computer management and information systems has risen consistently and continues to rise. Recent studies of projected occupational demand for graduates indicate that the computing and information systems field is one of the fastest-growing in business and service organizations.
Positions in great demand include systems analyst, programmer/analyst, network administrator, database designer, information systems project manager, systems consultant, and training specialist. Positions of emerging importance include telecommunications analyst, Internet specialist, and help-desk consultant. Employers of information systems graduates include corporations, consulting companies, contract software development companies, small businesses, and government organizations.

\section*{Degree Program}

Bachelor of Science, Computer Management and Information Systems

\section*{Program Overview and General Department Information}

\section*{Admission and Application Process}

Before applying to the program, students are encouraged to consult with an advisor in the School of Business Student Services Office to discuss the application process and plan a
program of study.
To be admitted to the Bachelor of Science in Computer Management and Information Systems (CMIS) program, students must:
- Complete all Academic Development courses required by the University;
- Complete any courses required to address high school deficiencies;
- Apply for admission and be accepted into the School of Business. Students who are not accepted into a program will not be allowed to enroll in 300- or 400-level business courses and will not be eligible to declare a major in CMIS.

\section*{Application Deadlines}

Summer Term and Fall Semester
March 1
Spring Semester
October 1

\section*{Review of Applications}

The Undergraduate Admissions Committee of the School of Business will review all applications and students will be notified of their status within 45 days of the application deadline of the term for which they are seeking admission. An application to the School of Business is ready to be reviewed when all of the following criteria are met:
- Admission to SIUE.
- Submission of a completed undergraduate program application received by the School of Business Student Services Office by the stated deadline. Applications are available from the School of Business Web site, siue.edu/ business, or in Business Student Services, on the third floor of Founders Hall. Applicants also must ensure that all transcripts from all community colleges and four-year institutions have arrived at the Service Center, Registrar's Office, Box 1080, Edwardsville, IL 62026-1080 by the application deadline. Early completion of the application file is strongly encouraged.
- Sophomore status ( 30 hours earned).
- Successful completion (grade of C or higher) of any seven of the nine prerequisite courses. (Note: Students who apply for summer admission must have all 9 prerequisite courses completed by the end of the preceding spring semester. Students who apply for fall admission must have all 9 prerequisite courses completed by the end of the preceding summer term. Students who apply for spring admission must have all 9 prerequisite courses completed by the end of the preceding fall semester).
- Prerequisite courses required for the School of Business

ENG 101 and 102
ACS 101
CMIS 108
ECON 111 and 112
MATH 120
ACCT 200
MS 250 (students may substitute MATH 150 for both MATH 120 and MS 250)
■ minimum prerequisite grade point average of 2.25 on a 4.0 scale

■ minimum cumulative grade point average of 2.25 on a 4.0 scale

\section*{Admission}

The admission decision will be based primarily on the student's performance in collegiate-level work and the required essay submitted as part of the admission application. Other factors that may be considered in the admission decision include, but are not limited to, courses taken, pattern and trend of grades, institutions attended, and co-curricular activities, as well as career- or work-related experience. The School of Business intends to admit students who demonstrate the greatest likelihood of academic success while also ensuring the diversity of the student body.
Admission to School of Business programs is competitive, and not all students who apply to the School of Business will be admitted. Since the number of students being admitted depends on the capacity of the school, applicants cannot be guaranteed admission to the School of Business based solely on a required minimum grade point average.

\section*{Transfer Students}

The application process described above must be followed. Transfer students may contact the School of Business Student Services Office with questions regarding transferability and equivalency of business coursework completed at other institutions. The School of Business accepts lower-division courses taken at other institutions only as lower-division (100- and 200-level) courses.

\section*{Students who already hold a Bachelor's Degree}

Students who already hold a bachelor's degree ("Seniors with Degree") are not required to submit a separate application to the School of Business; rather, they should meet with an academic advisor in the School of Business Student Services office after they have been admitted to SIUE for program advisement and planning.

\section*{Declaration of Major}

Once students are admitted to the School of Business, they may declare a CMIS major if they have earned at least a 2.25 or higher cumulative grade point average. Students not declared to the CMIS major may not enroll in 300- or 400-level CMIS core courses.

\section*{Retention}

Students must achieve and remain in good standing to be retained in the Computer Management and Information Systems program. Good standing means a student has a minimum grade point average of 2.25 cumulative, 2.5 in CMIS courses and 2.25 in required business courses. Students who fail to maintain at least a 2.25 cumulative grade point average at SIUE will be placed on program probation. Students will be notified when they are not meeting the cumulative grade point average retention standard and will be informed of the timeframe allowed to improve their grade point average. Students who do not meet retention requirements for two consecutive terms will be separated from the CMIS major. Students whose cumulative grade point average is below 2.25 will be removed from the School of Business. Students remaining below a 2.5 CMIS grade point average for two terms may be dropped from the CMIS program.

\section*{Degree Requirements}

\section*{Lincoln Program General Education Requirements}
* Courses that require a grade of C or higher.

\section*{Foundation Courses ( 5 required)}

ENG 101* ENG 102* ACS 101* RA 101
QR 101
Breadth Courses ( 6 required)
ECON 111* (meets Social Science Breadth (BSS), major requirement)
Humanities Breadth (BHUM) Course
Fine and Performing Arts Breadth (BFPA) Course
Math 120* (meets Physical Science Breadth (BPS), major requirement)
Life Sciences Breadth (BLS) Course
CMIS 108* (meets Information and Communication in Society Breadth (BICS) Course, major requirement)

\section*{Experiences Requirements}

New Freshman Seminar (CMIS 108 recommended or students can choose from the approved courses)
Laboratory Experience (MS 251, major requirement, will meet on EL science requirement)
Global Cultures Experience (met by IS 401, major requirement)
U.S. Cultures Experience

Health Experience
Additional General Education Requirements Interdisciplinary Studies (met by IS 401, major requirement)

\section*{Bachelor of Science Requirements}
To complete a Bachelor of Science degree at SIUE, students must have a total of at least eight (8) courses in the sciences (life, physical or social), including, as part of those eight courses, two (2) courses designated as labs (EL). The courses listed below are included as a part of the required courses for the major or as a part of the Breadth Area requirements.
1. Social, Physical, or Life Science Course (Students must choose a course with a lab, EL, to fuffill this requirement)
2. Social, Physical, or Life Science Course (Students will choose from the approved courses)
3. ECON 111* (Required for all business majors, also used for Breadth Area Course, see above)
4. ECON \(112^{*}\) (Required for all business majors, see above)
5. MATH 120* (Required for all business majors, also used for Breadth Area Course, see above)
6. MS \(250^{*}\) (Required for all business majors, see below)
7. MS \(251^{*}\) (Required for all business majors, see below, also meets one EL course requirement)

\section*{8. Life Science Breadth Course (See Breadth Area Requirements above)}

Students should consult with an academic advisor to ensure proper completion of general education requirements.

\section*{CMIS Major Requirements}
\begin{tabular}{llll} 
ACCT 200** & ACCT 210* & CMIS 108* & CMIS 130* \\
CMIS 232 or 234 & CMIS 270 & CMI 310 \\
CMIS 342 & CMIS 450 & CMIS 468 & \\
CMIS 470* & \\
ECesearch Requirement) & ECON 111** \\
ECON 112** & FIN 320 & GBA 301 & GBA 402 \\
IS 401 & MS 250* & MS 251* & MGMT 330 \\
MGMT 331 & MGMT 441* & MKTG 300 & PROD 315
\end{tabular}

\section*{Computing electives (two of the following)}

CMIS 232 or 234 , if not completed as CMIS Major Requirement (above)
\begin{tabular}{llll} 
CMIS 260 & CMIS 300 & CMIS 430 & CMIS 460 \\
CMIS 462 & CMIS 472 & CMIS 488 & CMIS 490 \\
CMIS 495 & & &
\end{tabular}
*Courses that require a grade of C or better
\({ }^{\wedge}\) Students may substitute MATH 150 (with a grade of C or higher) for both MATH 120 \& MS 250.
Students planning to work at companies that operate information systems in COBOL are encouraged to take CMIS 260.

\section*{Sample Curriculum for the Bachelor of Science in Computer Management and Information Systems}Fall SemesterYear 1
ENG 101 -English Composition I* ..... 3
ECON 112 - Microeconomics* .....  3
MATH 120 - College Algebra (BPS)*^ ..... 3
RA 101 or PHIL 213. ..... 3
ACS 101 - Public Speaking* ..... 3
Total ..... 15
Year 2
ACCT 200 - Fundamentals of Financial Accounting* .....  3
CMIS 130 - Introduction to Programming Logic* ..... 3
Humanities (BHUM) ..... 3
Life Science (BLS). ..... 4
Quantitative Reasoning 101 or MATH 150 or Higher ..... 3
Total ..... 16
Year 3
CMIS 310 - Information Technology Hardware
\& System Software ..... 3
ACCT 210 -Managerial Accounting* ..... 3
MGMT 330 - Understanding the Business Environment .....  3
MGMT 331-Managing Group Projects ..... 3
GBA 301 - Business Transitions I ..... 1
Life (LS), Physical (PS) or Social Science (SS) ..... 3
Total ..... 16
Year 4
CMIS 342 - Information Systems for Business .....  3
CMIS 468 - Business Telecommunications .....  3
Computing Elective\#\# ..... 3
U.S. Cultures Requirement (EUSC) ..... 3
Health Experience (EH) ..... 3
Total ..... 15
Spring Semester
Year 1
CMIS 108 or CS 108 - Computer Concepts (BICS)* ..... 3
ECON 111 - Macroeconomics (BSS)* ..... 3
ENG 102 - English Composition II*. ..... 3
MS 250 - Mathematical Methods*^ ..... 3
Total ..... 12
Year 2
CMIS 232 - Visual Basic or CMIS 234 - Java Programming ..... 3
CMIS 270 - Structured Systems Analysis ..... 3
MS 251 - Statistical Analysis for Business Decisions* (EL) ..... 4
Elective ..... 3
Life (LS), Physical (PS) or Social Science (SS) (EL) ..... 3
Total ..... 16
Year 3
CMIS 450 - Database Design ..... 3
MKTG 300 - Principles of Marketing ..... 3
PROD 315 - Operations Management ..... 3
FIN 320 - Financial Mgmt \& Decision Making ..... 3
Fine \& Performing Arts (BFPA) ..... 3
Total ..... 15
Year 4
CMIS 470 - Structured System Designs* ++ .....  3
Computing Elective \#\#. ..... 3
IS 401 - Business and Society (EGC) ..... 3
MGMT 441 - Strategic Management* ..... 3
GBA 402 - Business Transitions II ..... 1
Elective ..... 2
Total ..... 15
* C or higher required.
++ Course satisfies research requirement. \({ }^{\wedge}\)
Students may substitute MATH 150 (with a grade of C or better) for MATH 120 and MS 250.
\# CMIS 232 or 234 , if not completed as CMIS Major Requirement (above), 260, 300, 430, 460, 462, 472, 488, 490, or 495 . Students planning to work at companies that operate information systems in COBOL are encouraged to take CMIS 260.

\section*{Graduation Requirements}

Cumulative SIUE grade point average required: 2.25

CMIS grade point average required (in required CMIS courses taken at SIUE):
2.5 Business grade point average required (in required business courses taken at SIUE): 2.25

C or higher in Management 441 (University Senior Assignment)
C or higher in courses marked with * in course Degree Requirements section
Other grade point average requirements apply as listed in the Degree Requirements section.

\section*{Air Force Reserve Officer Training Corps (ROTC)}

\section*{Aerospace Studies}

The Air Force Reserve Officer Training Corps (Air Force ROTC) provides you the opportunity to become a United States Air Force officer while completing your college degree. The program, combining traditional undergraduate education with military instruction, will prepare you to tackle the leadership challenges awaiting the Air Force in the years ahead. In-college scholarships are offered to highly qualified students. To learn more about Air Force ROTC, visit afrotc.com or call (314) 977-8227.

\section*{Army ROTC - Military Science}

\section*{Adjunct Faculty}

Brault, R.; Cerminn, M.; Cloud, M.; Justin, E.; Lavite, B.; Motes, D. (LTC, U.S. Army); Porch, M.W.; Wilson, K.

\section*{Military Science}

The purpose of military science and Army ROTC is to commission the future officer leadership of the U.S. Army. Those who successfully complete the Reserve Officers' Training Corps program
normally earn commissions as lieutenants in the United States Army and go on to serve in either the Active Army, Army Reserve or Army National Guard.

\section*{Army ROTC}

ROTC may be completed in several different ways as outlined below.

\section*{Four-Year Option}

Military science is traditionally offered as a four-year option. It is best to start as a freshman, but special arrangements can be made for those who start as sophomores. The first two years of military science are voluntary (without service obligation) and designed to give students a perspective on their leadership ability and what the Army can offer them. Students who decide to continue in ROTC and pursue a commission sign an agreement with the Department of the Army to accept a commission upon completion of the last two years of military science. In return, the Army agrees to provide a subsistence allowance (up to \(\$ 5,000\) per year) and to provide all necessary uniforms.

\section*{Two-Year Option}

This option is designed to provide greater flexibility in meeting the needs of students desiring commissions in the U.S. Army. SIUE students who do not participate in the fouryear option or are community college transfer students are eligible for enrollment. Basic prerequisites for entering the two-year option are:

■ good academic standing (minimum 2.0 GPA) and passage of an Army medical examination.
- two academic years of study remaining (undergraduate or graduate). If students are undergraduates, they must have junior status or at least 54 credit hours.

\section*{Simultaneous Membership}

Students who qualify for the simultaneous membership program (members of the Army Reserve or National Guard) can complete the military science program in two years and earn up to \(\$ 17,000\) more in the same time. Upon graduation, a student may request to stay in the reserve component or select active duty.

\section*{Veterans}

Veterans of any of the armed forces who are academically aligned may qualify for advanced placement and should contact the Military Science Department for details.

\section*{ROTC Scholarships}

The Army Reserve Officers' Training Corps has several scholarship options that pay tuition, fees, and books, and provide up to \(\$ 500\) monthly stipend for the academic year. These scholarships cover periods of four years, three years, and in some circumstances, two years.

High school juniors and seniors should apply for the 4 -year scholarships no later than November of their senior year. Applications are available at armyrotc.com. SIUE freshmen should apply in January for the three-year scholarship. Special consideration for scholarships is given to students in engineering, nursing, business, or physical sciences. Scholarship students normally incur a four-year active duty obligation. They may request reserve duty to serve with the Army National Guard or Army Reserve, or may initially compete for scholarships that guarantee Army Reserve or Army Guard duty.
In addition, 40 Illinois State Army ROTC scholarships are available annually. These scholarships pay for tuition on a semester basis and are renewable. Please contact the Military Science Department for more details.

\section*{Qualifications}

All students who desire to enter the Army Reserve Officers' Training Corps must be United States citizens, be in good physical condition, and have high moral character. Students must be at least 17 years old to enroll and not over 34 when they receive their commission. Additional qualifications to be admitted into the advanced course include an academic average of C or better and passage of an Army medical examination.

\section*{Academic Preparation}

The SIUE Army Reserve Officers' Training Corps academic preparation consists of three parts:
■ earning a degree in the student's chosen field of academic study/major; and

■ completing 22 semester hours (four-year option) or 12 semester hours (two-year option) of the military science curriculum; and

■ completing professional military education requirements. The courses in military science are university-level academic courses. The curriculum consists of classroom instruction and a leadership laboratory in which students receive practical leadership experience.

\section*{Leadership Laboratory}

Leadership laboratory is required of all students enrolled in military science classes.

Laboratories are held two hours each week unless otherwise designated. In addition, students attend one mandatory off-campus field training exercise each semester, usually on a weekend.

Leadership laboratory develops individual military skills and leadership ability through participation in small unit tactics, survival training, rappelling, and responsibilities within the Cadet Corps organization.

\section*{Extracurricular Activities}

\section*{Sponsored by Army ROTC}

Army ROTC students are encouraged to participate in a wide variety of extracurricular activities. These activities include the Ranger Challenge Team, Marksmanship Team, Tactics Club (war-gaming), Color Guard, Cadet Club and intramural sports. Students not enrolled in ROTC may participate in these activities with the permission of the professor of military science.

\section*{Graduate Study}

The Army recognizes the importance of a graduate degree for its personnel. Several programs are available to help ROTC graduates obtain an advanced degree. The Army sends selected second lieutenants immediately to graduate school (with full pay and allowances) to pursue advanced degrees in select disciplines. Other officers may request postponement of active duty for two years to continue graduate study; or be awarded guaranteed graduate schooling at a later time in their military service. Students who are accepted into medical school may take up to four years to complete their studies. Numerous opportunities exist for an officer to complete a master's degree in service and receive financial assistance from the Army. Educational assistance opportunities in the Army Guard and Army Reserve vary by state.

Select graduate students at SIUE also are eligible for enrollment in the ROTC two-year program.


\section*{School of Education, Health and Human Behavior}

The School of Education, Health and Human Behavior offers undergraduate programs in professional education, psychology, exercise science, community health, nutrition, and speech-language pathology and audiology. Professional education programs prepare students for teaching positions in early childhood education, elementary education, secondary education ( \(6-12\) and \(\mathrm{K}-12\) ), and special education. SIUE's teacher education programs prepare persons for various teaching fields through a blend of coursework, field experiences, and student teaching. Teacher education programs at SIUE are partnership based in public and private schools in the St. Louis Metro East area of southwestern Illinois. Because of SIUE's commitment to diversity in its broadest sense, partnership schools include those in rural, urban, and metropolitan communities as well as those identified as hard-to-staff.

The Department of Psychology offers both a comprehensive major and a program for students who wish to pursue graduate study in psychology. Speech-language pathology and audiology majors pursue a program of study for the purpose of helping people who have communication disorders. Licensure in speechlanguage pathology occurs at the graduate level. The Department of Kinesiology and Health Education offers options for students interested in exercise science, nutrition, and community health. Through any of the undergraduate programs, students may become qualified to enter graduate studies in the School of Education, Health and Human Behavior.

The School of Education, Health and Human Behavior is accredited through the Council for the Accreditation of Educator Preparation (CAEP). All teacher education programs are recognized nationally through CAEP and the content area specialized professional associations. The school and programs are also approved by the Illinois State Board of Education (ISBE).

\section*{Admission and Advisement}

Procedures vary for admission to different programs in the School of Education, Health and Human Behavior. Therefore, students should consult the appropriate department chair for specific information.

Students interested in teacher education may contact the School of Education, Health and Human Behavior Student Services. Admission to the University or to a degree program in an academic department does not necessarily constitute acceptance into a teacher licensure
program. Teacher education students must be officially admitted to a teacher education major to secure a student teaching assignment, complete all teacher education requirements, and qualify for a teaching license. For admission into any program in teacher education, a student must present a cumulative grade point average of at least 2.5, must receive a grade of C or better in English 101 and 102, meet other program specific admission requirements, and pass the Illinois Licensure Testing System (ILTS) Test of Academic Proficiency. Students apply to teacher education programs on the School of Education, Health and Human Behavior Student Services website in the semester prior to their first semester in their chosen program. Attaining the minimum criteria does not guarantee admission and programspecific criteria may change based, in part, on resources, capacity and size of applicant pool.

\section*{Degrees}

The School of Education, Health and Human Behavior grants the bachelor of science degree with majors in early childhood education, elementary education, and special education. The bachelor of arts and bachelor of science degrees with majors in psychology, exercise science, nutrition, health education, and speechlanguage pathology and audiology also are offered.

\section*{Teaching Licensure}

Upon successful completion of a teacher education program and passing the Illinois Licensure Testing System Test of Academic Proficiency (one of the admission requirements for teacher education), the appropriate content test (required for the student teaching placement), the appropriate assessment of professional teaching, the edTPA and other applicable tests, students qualify for a teaching license in the State of Illinois and may apply for teaching licensure in other states. Students seeking degrees in other majors may qualify for a 6-12 secondary or a K -12 special licensure by completing an approved program in teacher education. Speech-language pathology majors who wish to pursue licensure must first obtain a master's degree. The following undergraduate teacher education programs are available:
■ Early Childhood Education
■ Elementary Education
- Special Education
- Art Education

■ Biology Education

■ Chemistry Education
■ Earth and Space Science Education
■ English Education
- Foreign Language (French, German, Spanish) Education
- Political Science Education
- Geography Education
- History Education
- Mathematics Education
- Music Education
- Theater Arts Education

Effective February 2012, the State of Illinois will no longer allow grades lower than C in any professional education, endorsement or specified general education courses to count towards licensure.
Please note that 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 programs.

\section*{Criminal Background Checks}

Prior to any field placements, candidates must pass a criminal background check and be free of any offenses which would prohibit one from receiving licensure from the Illinois State Board of Education. Illinois law requires Illinois school boards to conduct a criminal background investigation on applicants for employment. This law prohibits the employment of any person who has been convicted of committing or attempting to commit any one or more of a number of offenses. At present, offenses include, but are not limited to, first degree murder, any Class X felony; juvenile pimping, soliciting for a juvenile prostitute; exploitation of a child; obscenity; child pornography; harmful material; criminal sexual assault; aggravated criminal sexual assault; criminal sexual abuse; aggravated criminal sexual abuse; offenses set forth in the Cannibis Control Act; and crimes defined in the Illinois Controlled Substances Act. Employment must be denied whether the offenses and /or conviction occurred inside or outside Illinois.

\section*{Pre-Student Teaching Clinical Experiences}

Pre-student teaching clinical experience is required in the area for which a student seeks licensure. This experience, which must be
completed and documented prior to student teaching, is arranged through the School of Education, Health and Human Behavior Student Services. Before being placed, candidates must pass the criminal background check and complete Illinois requirements for safety education. There may also be additional district requirements. The School of Education, Health and Human Behavior Student Services will notify candidates of these requirements.

\section*{Student Teaching}

Student teaching is the culminating experience in professional teacher education programs. It is required in order to meet the degree requirements of the School of Education, Health and Human Behavior, the licensure requirements of Illinois, and the standards of the Council for the Accreditation of Educator Preparation (CAEP).

Student teaching requires full-day involvement in a public school. Accordingly, students should avoid taking other courses or employment during student teaching and should schedule it at a time when they will be free of other demands on their time and energy. Requests for course overload during student teaching must be approved by the department chair and the associate dean for instruction of the School of Education, Health and Human Behavior. Student teaching is not available during the summer term.

The student teaching application procedure begins during the year prior to the assignment. Students must pass the appropriate Illinois Licensure Testing System (ILTS) Content Test before they can begin their student teaching placement. Students must pass the edTPA assessment during the student teaching semester in order to earn teacher licensure in Illinois. In addition, each department that has a program leading to teacher licensure has established policies regarding the application for student teaching. Students should secure student teaching information from an advisor in the appropriate department. Junior and senior transfer students should contact an advisor for application information during or before orientation. Student teaching application packets may be obtained from the School of Education, Health and Human Behavior Student Services. Students should check with that office for application deadline dates.

The School of Education, Health and Human Behavior maintains the responsibility for student teaching assignments. Most pre-student teaching clinical assignments and student teaching placements are identified partner schools and
school districts within 40 miles of the university. Pre-student teaching clinical experiences and student teaching will provide teacher candidates with a breadth of experiences in diverse settings.
The SIUE School of Education, Health and Human Behavior shall determine the start and end dates for all student teaching assignments. Students who are student teaching in the fall semester are expected to attend all start of the school year district and school meetings/ workshops with their cooperating teachers prior to the start of the first day of student attendance. Students who are student teaching in the spring semester are expected to begin their student teaching experience on the first day of student attendance after the winter break of their host school. The student teaching experience will end the week prior to finals. Students wishing to continue in their host classroom during or after finals week should consult with the cooperating teacher and SIUE supervisor. During the SIUE student teaching semester, all SIUE student teachers must adhere to the school calendar (i.e. vacations, school holidays, etc.) of the school to which the student has been assigned to student teach by the SIUE School of Education, Health and Human Behavior.
Following are additional prerequisites for registering for and receiving an assignment for student teaching:
- All teacher candidates, regardless of teaching field or academic major, must be admitted to and follow an approved teacher education program. Students must, therefore, consult with an School of Education, Health and Human Behavior advisor to make certain they are meeting requirements of an approved program well in advance of student teaching.
- Student teaching assignments are made after admission to the School of Education, Health and Human Behavior and the completion of at least 96 hours. Students must have a minimum cumulative grade point average of 2.5 in advance of the student teaching assignment. Transfer students must be in residence for one semester prior to beginning student teaching.
■ Students must have a 2.5 grade point average or higher in professional education course work. No grade lower than a C is acceptable in professional education, endorsement or specified general education courses.
- Students must have completed all required major and professional education courses, as well as all pre-student-teaching clinical experiences.
- A report of a tuberculosis skin test or X-ray taken within 90 days before the student teaching assignment must be on file in University Health Service.

■ Student teachers must also acknowledge their role as DCFS Mandated Reporters.
In addition to the above stated student requirements, the following policies guide all pre-student teaching and student teaching placement processes.
- Students may not be placed in a school from which they attended, regardless of the date of last attendance.

■ Students may not be placed in a school in which a close relative is currently employed or attending. Additionally, students may not be placed in a school where a potential conflict of interest might exist.

■ The School of Education, Health and Human Behavior Student Services will work with the program faculty in locating suitable cooperating teachers. Good faith efforts are made to assure that candidates in field experiences or student teaching are provided with experiences that include:
- Male and female P-12 students from different socioeconomic groups and at least two ethnic/racial groups as reported in the U.S. Census
- English language learners
- Students who have disabilities

\section*{SIUE Denial of Recommendation for Teacher Licensure Grievance Policy}

In compliance with the Illinois School Code ( 105 ILCS 5/21-21.1), no SIUE student shall be denied the opportunity to receive the institutional recommendation for teacher licensure for reasons which are not directly related to the candidate's anticipated performance as a licensed employee. Any SIUE candidate who has completed a teacher education program and who is denied teacher licensure shall be afforded a means for grieving the denial by the following procedure.
■ Within 10 days of the denial, SIUE shall notify the candidate, in writing, of the reasons for the denial of recommendation for licensure.
- Within 30 days of notification of the denial, the candidate may request that SIUE review the denial. This request shall be in writing and should be directed to the SIUE Licensure Officer.

■ After an additional 30 days to complete the review, the candidate shall be notified in writing of the decision to uphold or change the denial.
- Within 10 days of notification, the candidate may appeal SIUE's decision to the Illinois State Teacher Licensure Board.

This SIUE grievance procedure applies only to denial of licensure for candidates within the approved School of Education, Health and Human Behavior teacher licensure programs. All other grievances should proceed through the SIUE Student Grievance Code. SIUE's current Student Grievance Code provides all students with a grievance procedure as a means for students to grieve faculty and staff members for violations of their student rights as set forth the in the Student Grievance Code.

\section*{Appeal Process}

Students wishing to appeal a pre-student teaching and/or student teaching placement decision are expected to follow the steps outlined below, in accordance with University policy:

\section*{Informal Resolution}

Students should first contact the School of Education, Health and Human Behavior Student Services Director to obtain clarification on the placement decision. Many misunderstandings may be resolved during this informal process.

If not resolved, the student has the option to file a written note of complaint to the School of Education, Health and Human Behavior Student Services Director. This informal appeal must be provided within 10 school days of the informal face-to-face meeting with the Director, described in step 1 above. The School of Education, Health and Human Behavior Student Services Director will consult with the appropriate departmental faculty, supervisors, and/or P-12 school personnel to make a final recommendation about the placement. This decision will be made within 10 school days of receipt of the student's written complaint.

\section*{Formal Resolution}

SIUE Student Grievance Code: Students have the right to formally appeal the decision rendered after pursuing the above steps by following the Student Grievance Code as outlined in the Student Rights and Conduct (siue.edu/ policies/3c3.shtml).

\section*{General Education Waiver}

As of fall 2008, undergraduate programs leading to initial licensure of early childhood education,
elementary education, special education, and mathematics education have agreed to accept an associate's degree (associate of arts, associate of science, associate of science and arts, and associate of arts in teaching) from an approved community college in accordance with SIUE's general waiver policy (please refer to SIUE catalog for current policy). Early childhood, special education, and mathematics education programs will accept that general education requirements have been met with the completion of any of the degrees specified above. However, it must be noted that the candidate cannot be licensed in Illinois unless all professional education courses and courses required by the major are earned with a grade of C or better.

\section*{Curriculum and Instruction}

Founders Hall, Room 1133
siue.edu/education/ci

\section*{Professors}

Breck, Susan E., Ph.D., 1994, University of Kansas
Bushrow, Kathy M., Ph.D., 1996, University of Texas at Austin
Furst-Bowe, Julie A. (Chancellor) Ed.D. 1995, University of Minnesota
McAndrews, Stephanie L., Ph.D., 1998, University of Arizona
O’Donnell, Barbara D., Ed.D., 1999, University of North Dakota, Grand Forks
Scott, Victoria, Ed.D. 1995, University of Kansas
Smith, Randall E., Ph.D., 1987, University of Missouri, Columbia

\section*{Associate Professors}

Krim, Jessica, S., Ed.D., 2009, Montana State University
Latorre, Martha P., Ph.D., 1999, University of Alabama
Marlette, Stephen M., Ph.D., 2002, Kansas State University
Pryor, Caroline R., Ed.D., 1990, Arizona State University
Searcy, Leroy, Ed.D., 1984, University of Missouri, Columbia
Sherwood, Elizabeth A., Ph.D., 2004, Illinois State University

\section*{Assistant Professors}

Cummings, Liza, Ph.D., 2011, University of Missouri, Columbia
Johnson, Brian Walker, Ph.D., 1995, Emory University

Msengi, Shadrack, Ed.D., 2006,
University of Northern Iowa

\section*{Degree Programs}

Bachelor of Science
Early Childhood Education
Elementary Education
Middle Level Education
Secondary Education (Degree is in the content area)

\section*{Licensure}

The Department of Curriculum and Instruction offers programs leading to a Bachelor of Science degree in Education. These programs fulfill requirements for initial licensure in the State of Illinois to teach at the early childhood, elementary, middle level and secondary levels. The Illinois initial early childhood teaching program leads to licensure for teaching children from birth through grade 2 . The initial elementary teaching program leads to licensure for teaching grades 1-6. Middle level initial program leads to licensure for teaching grades 6-8. The initial secondary teaching program provides licensure for teaching grades 9-12.

\section*{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 certificates. 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 programs.
- It is expected that all teacher candidates demonstrate appropriate professional dispositions and maintain satisfactory academic progress in the program. Failure to do so, can lead to dismissal from the program.

\section*{Diversity Statement}

SIUE's Teacher Education programs foster teacher candidates' ability to understand and meet professional responsibilities by modeling respect and value for diversity. Candidates create and engage their students in practices that develop awareness, understanding, respect, and a valuing of the forms of diversity that exist in society and their importance in learning and teaching. The School of Education Health and Human Behavior, teacher education programs are dedicated to supporting all teacher education candidates regardless of their economic or social status and advocates for the rights of students free from discrimination based on race, color,
ethnic origin, national origin, creed, religion, political belief, sex, sexual orientation, gender identification, ability or age.

\section*{Early Childhood Education}

\section*{Program Overview}

Early Childhood programs at SIUE offer both full-time and part-time options that lead to initial teacher licensure in Illinois to work with children birth to second grade. In addition, both programs offer a non-licensure option to work in infant/ toddler and preschool settings that do not require teacher licensure. Information for all programs and admission policies is available from the School of Education, Health and Human Behavior Student Services. All programs in early childhood address national standards set by the Council for the Accreditation of Educator Preparation and the National Association for the Education of Young Children, as well as state standards set by the Illinois State Board of Education.

\section*{Minimum Eligibility Requirements for the Early Childhood Program}
(Meeting eligibility requirements does not guarantee acceptance into the program.)
1. completion of all foundation courses (or approved equivalents) with a grade of C or better: ENG 101, ENG 102, ACS 101, RA 101 and CMIS 108
2. completion of CIED 100 or its equivalent with a grade of C or better
3. combined GPA (all post-secondary work) of 2.5 or higher
4. good academic standing at SIUE if applicable
5. passing the ICTS Test of Academic Proficiency (students seeking licensure only)
6. completion of 42 semester hours or more of college-level course work
7. completion of the self-reporting disposition survey on file with the School of Education, Health and Human Behavior
Requirements \(1-5\) above must be met before students can be accepted into the major or enroll in curriculum and instruction courses or required professional education courses. The ICTS Test of Academic Proficiency (formerly the Basic Skills Test) is given only at scheduled times. Students should consult School of Education Student Services for test information. To remain in the early childhood education program, the student must
maintain a 2.5 GPA and earn a grade of C or better in all field and professional education courses.

\section*{Selection Process for Programs}

Students who apply and meet the minimum eligibility requirements will be ranked and selected for admission to the partnership program. Ranking will be determined by a formula using GPA and the ICTS Test of Academic Proficiency (formerly the Basic Skills Test) score. The selection process will occur after spring semester grades are received. After the selection process, should placements become available, those positions will be offered to the next student on the ranked list. This state-of- theart program addresses both the new national standards set by the Council for the Accreditation of Educator Preparation and the National Association for the Education of Young Children and state standards set by the Illinois State Board of Education.

\section*{Retention}

Students must maintain a cumulative grade point average of at least 2.5 to remain in good academic standing. Students whose cumulative grade point average falls below 2.5 will be placed on academic probation, returned to undeclared status and limited to a maximum of 12 hours of enrollment per term. If, at any point in the program, students decide that they do not wish to pursue initial teacher licensure in Illinois, they may reapply to the program to pursue a non-licensure option. Application forms may be obtained from School of Education, Health and Human Behavior Student Services.

\section*{Transfer}

Transfer students should contact an advisor in the School of Education, Health and Human Behavior Student Services as early as possible to discuss transfer procedures.

\section*{Early Childhood On-Site (EChOS) Program}

EChOS is a part-time program that prepares working adults to be early childhood educators in public and non-public school settings, birth to second grade. Courses are offered at off-campus locations each semester. Students in this program have the same course requirements as students in the Early Childhood Education Program. During student teaching candidates may teach at the preschool level only or at both preschool and kindergarten through second grade levels.

\section*{Minimum Eligibility Requirements for Early Childhood On-Site (EChOS) Program}
(Meeting eligibility requirements does not guarantee acceptance into the program.)
- Completion of all general education requirements
- Completion of CIED 100 or its equivalent with a grade of C or better
- Combined GPA (all post-secondary work) of 2.5 or higher
- Passing the ICTS Test of Academic Proficiency
- Good academic standing at SIUE (if applicable)
- Completion of the self-reporting disposition survey on file with the School of Education

\section*{Retention in the Early Childhood On-Site Program (EChOS)}

To remain in the EChOS Program, the student must maintain a 2.5 GPA and earn a grade of C or better in all field and professional education courses. A student also must receive a satisfactory recommendation from the cooperating teacher and University supervisor. To be eligible for student teaching, students must pass the ICTS Early Childhood Content Test. If, at any point in the program, students decide that they do not wish to pursue initial teacher licensure in Illinois, they may reapply to the program to pursue a non-licensure option. Application forms may be obtained from School of Education, Health and Human Behavior Student Services.

\section*{Transfer}

Transfer students should contact an advisor in the School of Education, Health and Human Behavior Student Services as early as possible to discuss transfer procedures.

\section*{Related Web Sites}
siue.edu/education/advisement/childhood.shtml isbe.net/teachers/documents/tocminreq.htm

The senior project, a University requirement, is an integral part of the early childhood education program. Additional details are provided by program faculty and University supervisors. Students pursuing a career in teaching should make certain their courses are in compliance with University and departmental degree requirements as well as state licensure requirements. Information about these requirements is provided to undergraduates by the education advisors in the School of

Education, Health and Human Behavior Student Services. Important notices are posted for review.

\section*{Moving from Non-Licensure to Licensure:}

Students admitted under a non-licensure option or who graduated without licensure may pursue initial teacher licensure in Illinois. To be eligible for licensure students must:
- Re-apply to an early childhood program with a licensure option
- Have graduated less than 5 years prior to the date of application for admission to a licensure program
- Be in good academic standing at SIUE
- Have a combined GPA of 2.5 or higher of all post-secondary work
- Pass the ICTS Test of Academic Proficiency (formerly the Basic Skills Test) and all other applicable licensure tests
- Complete all applicable program and/or licensure requirements
- Successfully complete an appropriate student teaching experience

\section*{General Education and Degree Requirements}

The program in early childhood education requires 54 hours of general education courses, 3 hours of health and physical development, 56 hours of professional education courses and 18 hours in an academic emphasis. Transfer students may be required to complete additional hours in general education to meet licensure requirements. Students seeking licensure in early childhood education must meet SIUE general education requirements.
Foundations
ENG 101 ENG 102 ACS 101 RA 101
QR 101
Breadth - Fine \& Performing Arts
ART 111 MUS 111
Breadth - Humanities
Literature(BHUM)
Breadth - Information \& Communication in Society CMIS 108

Interdisciplinary Studies
Breadth - Physical Science
ESCI 111 or an introductory science MATH 112a MATH 112 b SCI 241b

Breadth - Life Science
SCl 241A

\section*{Breadth - Social Sciences}

HIST 200 HIST 201 GEOG 111
Health and Physical Development
HED 111
Academic Emphasis (18 hours)
(minimum 9 hours at 300 or 400 level; consult advisor for options)
Core and Early Childhood Coursework
CIED 100 CI 421 EPFR 315 EPFR 320
SPE 400 SPE 290
Program
\begin{tabular}{llll}
Cl 301 & \(\mathrm{Cl} 316(3 \mathrm{hrs})\) & Cl 317 & Cl 323 \\
Cl 424 & Cl 434 & Cl 426 & Cl 414 \\
Cl 450 & Cl 451 a & Cl 452 & SPE 440
\end{tabular}

Student Teaching (Licensure Option)
\(\mathrm{Cl} 450 \quad \mathrm{Cl} 451 \mathrm{~A} \quad \mathrm{Cl} 452\)
Extended Practicum (Non-Licensure Option)
Cl490A Cl490G
Students are required to read the University catalog and to study the Teacher Education Handbook, available online through the SIUE Web site. The Teacher Education Handbook is required for the Introduction to Education (CIED 100) course. Students should review it as soon as they identify an interest in the teaching profession. Then they should schedule an appointment with a School of Education, Health and Human Behavior advisor.

\section*{Graduation Requirements}

■ Complete all specific program requirements.
■ Complete all University requirements including:
- All general education requirements
- A minimum of 120 credit hours
- At least 30 of which must be completed at SIUE
- At least 60 of which must be completed at a regionally accredited 4 -year institution
- A minimum cumulative grade point average of 2.5
■ File an Application for Graduation by the first day of the term in which you plan to graduate.

\section*{Elementary Education}

The Elementary Education Program is a collaborative agreement between SIUE and public school districts whereby classroom teachers, university professors, and faculty supervisors work together to provide elementary education majors a unique opportunity to regularly interact with 1-6 students. This program addresses both the national standards set by the Council for the Accreditation of Educator Preparation and the Association for Childhood Education International and state standards set by the Illinois State Board of Education.
Admission into the program is a two-step process. Students can declare the elementary education major in their freshman year after successful completion of ENG 101 and CIED 100. This will allow students to work with professional education advisors, but does not guarantee admission to the program which is governed by state regulations.

The elementary education two-year undergraduate program is the only route to initial elementary licensure for grades 1-6 at SIUE. The elementary education program has a limited enrollment policy regarding formal admission to the program. The number of students admitted will depend on the resources available; admission to the elementary partnership program may therefore be competitive. Because the number of qualified applicants may exceed program resources, meeting or surpassing the minimum eligibility criteria will not guarantee admission to the program. SIUE Presidential, Dean's or Chancellor's Scholars and recipients of Golden Apple scholarships meeting minimum requirements will be given priority placement in the program. Students will be admitted only once a year, prior to each fall semester. Students admitted to the program will be expected to begin the professional sequence the fall semester following admission. Students may submit a program application before meeting eligibility requirements if they are in the process of completing the requirements. For admission requirements, please carefully read the appropriate program information sheet and the admission policy handout available from the School of Education, Health and Human Behavior Student Services. Applications must be turned in to School of Education, Health and Human Behavior Student Services by the posted due date. Applicants should verify their GPA and/or scores that School of Education, Health and Human Behavior Student Services advisors
submit to the faculty for admission selection. Applications for the elementary program are available at or before the beginning of every spring semester. Notification of admission status is mailed to applicants in June prior to the program beginning the following fall semester. Meeting minimum eligibility requirements does not guarantee admission to the program.

\section*{Declaration and Admission to the Elementary Education Program}

To declare a major in Elementary Education, it is necessary to have:
■ Completed any required Academic Development and high school deficiency courses;
- Received a grade of C or better in ENG 101 and CIED 100 (or equivalent course)
■ A cumulative grade point average of 2.5 or higher at all institutions and be in good academic standing at SIUE
High school students with a strong academic record may apply for direct declaration to the department of Curriculum and Instruction in the early childhood, elementary, or secondary programs. Students must have earned at least a 27 ACT or 1210 SAT and at least a 3.75 high school grade point average or rank in the top \(10 \%\) of their high school graduation classes to be eligible for direct admission to the programs.

In order to be admitted to a major in Elementary Education, it is necessary to have:

■ Declared as an Elementary Education Major
■ Received a grade of C or better in ENG 102, MATH 120

■ A cumulative grade point average of 2.5 or higher at all institutions and be in good academic standing at SIUE
■ Completion of 42 semester hours or more of college-level course work
■ Completion of the self-reporting disposition survey on file with the School of Education, Health and Human Behavior

■ Passed all areas of the ILTS Test of Academic Proficiency (TAP), formerly the Basic Skills Test or equivalent test approved by the State of Illinois. Information about the test is available online at il.nesinc.com. You must have a copy of your test scores when you declare your major. (Students now have the option to use their ACT or SAT score in lieu of taking the Test of Academic Proficiency (TAP). In
order for students to use their ACT scores, they must have taken the ACT test with the writing component within the last 10 years and received a composite score of 22 or higher. Please contact the School of Education, Health and Human Behavior Student Services office for more information on using the ACT score for admissions requirements.
The ILTS Test of Academic Proficiency is given only at scheduled times. Students should consult School of Education, Health and Human Behavior Student Services for test information.

\section*{Retention}

To remain in the elementary education program, the student must maintain a cumulative grade point average of 2.5 and earn a grade of C or better in all Curriculum and Instruction and professional education courses (MATH 112a, MATH 112b, SPE 400, SCI 241a, SCI 241b, IT 300, PSYC 201, and KIN 330 -or equivalent course). Normally, a student also must receive a satisfactory recommendation from the cooperating teacher and University instructor in field placement courses. If, at any point in the program, students decide that they do not wish to pursue initial teacher licensure in Illinois, they may reapply to the elementary education program to pursue a non-licensure option. Application forms may be obtained from School of Education, Health and Human Behavior Student Services. Students who apply for a nonlicensure option will have an extended practicum experience in the place of student teaching. Prior to any field placements, candidates must pass a criminal background check and be free of any offenses which would prohibit one from receiving licensure from the Illinois State Board of Education.

\section*{Transfer}

Transfer students should contact an advisor in the School of Education, Health and Human Behavior Student Services as early as possible to discuss transfer procedures.

\section*{General Education and Degree Requirements}

The program in elementary education requires 124 hours of general education courses, health and physical development courses, professional education courses, and academic emphasis courses. Transfer students may be required to complete additional hours in general education to meet licensure requirements. Students seeking licensure in elementary education must meet SIUE general education requirements.

The senior assignment, a University requirement, is an integral part of the elementary education program. Additional details are provided by program faculty.

\section*{Related Web Sites}
siue.edu/education/ci/undergrad/elementary-education-under-overview.shtml isbe.net/ teachers/documents/tocminreq.htm
Students are required to read the University catalog and to study the Teacher Education Handbook, available at the SIUE campus bookstore. The Teacher Education Handbook is required for the Introduction to Education (CIED 100) course. Students should purchase and review it as soon as they identify an interest in the teaching profession. Then they should schedule an appointment with a School of Education, Health and Human Behavior advisor.

\section*{Graduation Requirements}

■ A grade point average of 2.5 or higher at all institutions and be in good academic standing at SIUE;

■ Completion of all specific program requirements (completion of all CIED courses with a C or better)
- Completion of all University requirements including:
- All general education requirements
- A minimum of 120 credit hours
- At least 30 of which must be completed at SIUE
- At least 60 of which must be completed at a regionally accredited 4 -year institution

■ Completion of all skills courses (or approved equivalents) with a C or better
- ENG 101, 102, ACS 101, RA 101, QR 101, IT 300

■ Passing score on the ILTS Test of Academic Proficiency
■ Passing score on required elementary Content Area Test

■ Passing score on required Academic Proficiency Test (APT)
- Application filed for Graduation by the first day of the term in which you plan to graduate

\section*{Middle Level Education}

The Middle Level Education Program is a collaborative agreement between SIUE and public school districts whereby classroom teachers, university professors, and faculty supervisors work together to provide Middle Level education majors a unique opportunity to regularly interact with 6-8 students. This program addresses both the national standards set by the Council for the Accreditation of Educator Preparation and Association of Middle Level Education, as well as the state standards set by the Illinois State Board of Education.
Admission into the program is a two-step process. Students can declare the Middle Level education major in their freshman year after successful completion of ENG 101 and CIED 100. This will allow students to work with professional education advisors, but does not guarantee admission to the program which is governed by state regulations.

The Middle Level education two-year undergraduate program is the only route to initial Middle Level licensure for grades 6-8 at SIUE. The Middle Level Education Program has a limited enrollment policy regarding formal admission to the program. The number of students admitted will depend on the resources available; admission to the Middle Level partnership program may therefore be competitive. Because the number of qualified applicants may exceed program resources, meeting or surpassing the minimum eligibility criteria will not guarantee admission to the program. SIUE Presidential, Dean's or Chancellor's Scholars and recipients of Golden Apple scholarships meeting minimum requirements will be given priority placement in the program. Students will be admitted only once a year, prior to each fall semester. Students admitted to the program will be expected to begin the professional sequence the fall semester following admission. Students may submit a program application before meeting eligibility requirements if they are in the process of completing the requirements. For admission requirements, please carefully read the appropriate program information sheet and the admission policy handout available from the School of Education, Health and Human Behavior Student Services. Applications must be turned in to School of Education, Health and Human Behavior Student Services by the posted due date. Applicants should verify their GPA and/or scores that School of Education, Health and Human Behavior Student Services advisors
submit to the faculty for admission selection. Applications for the Middle Level program are available at or before the beginning of every spring semester. Notification of admission status is mailed to applicants in June prior to the program beginning the following fall semester. Meeting minimum eligibility requirements does not guarantee admission to the program.

\section*{Declaration and Admission to the Middle Level Education Program}

To declare a major in Middle Level Education, it is necessary to have:
■ Completed any required Academic Development and high school deficiency courses;
■ Received a grade of C or better in ENG 101 and CIED 100 (or equivalent course);
■ A cumulative grade point average of 2.5 or higher at all institutions and be in good academic standing at SIUE.
High school students with a strong academic record may apply for direct declaration to the department of Curriculum and Instruction in the early childhood, elementary, middle level, or secondary programs. Candidates must have earned at least a 27 ACT or 1210 SAT and at least a 3.75 high school grade point average or rank in the top \(10 \%\) of their high school graduating classes to be eligible for direct declaration to the programs.
In order to be admitted to the Middle Level Education program candidates must have:
- declared Middle Level Education as a major;

■ passed ENG 102, MATH 120, CIED 301, 310, and 311 with a C or better;
■ a cumulative grade point average of 2.5 or higher at all institutions and be in good academic standing at SIUE;
■ completed 42 semester hours or more of college-level course work, with at least 12 of those hours in the required content courses for the subject area in which licensure will be sought with a GPA of 2.75 or higher.
■ completed the SIUE School of Education selfreporting disposition survey on file with the School of Education;
■ passed all areas of the ILTS Test of Academic Proficiency (TAP), formerly Basic Skills Test, within 5 attempts, or equivalent test approved by the State of Illinois. Information about the test is available online atil.nesinc.com.

Candidates now have the option to use their ACT or SAT score in lieu of taking the Test of Academic Proficiency (TAP). In order for candidates to use their ACT or SAT score, they must have taken the test with within the last 10 years and received a composite score of 22 or higher on the ACT plus Writing and a minimum 19 in Combined English/Writing or SAT combined score of 1030 and a minimum 450 in writing.
The ILTS Test of Academic Proficiency is given only at scheduled times. Students should consult School of Education, Health and Human Behavior Student Services for test information.

\section*{Retention}

To remain in the middle level education program, the teacher candidate must maintain a cumulative grade point average of at least 2.5 and earn a grade of C or better in all Curriculum and Instruction (CIED) and professional education courses (SPE 400, IT 300). Candidates must maintain at least a 2.75 GPA in all required content courses. Teacher candidates also must receive a satisfactory recommendation from the cooperating teachers and University instructors in field placement courses. Prior to any field placements, candidates must pass a criminal background check and be free of any offenses which would prohibit one from receiving certification from the Illinois State Board of Education.

\section*{Transfer}

Transfer students should contact an advisor in the School of Education Student Services as early as possible to discuss transfer procedures.

\section*{General Education and Degree Requirements}

The program in middle level education requires 121-125 hours of general education courses, content courses, and professional education courses. Transfer students may be required to complete additional hours in general education to meet certification requirements. Students seeking certification in middle level education must meet SIUE general education requirements.
The senior assignment, a University requirement, is an integral part of the middle level education program. Additional details are provided by program faculty and University supervisors.

Students are required to read the University catalog and to study the Teacher Education Handbook, available at the SIUE campus bookstore. The Teacher Education Handbook is required for the Introduction to Education
(CIED 100) course. Students should purchase and review it as soon as they identify an interest in the teaching profession. Then they should schedule an appointment with a School of Education, Health and Human Behavior advisor.

\section*{Graduation Requirements}
- A grade point average of 2.5 or higher at all institutions and be in good academic standing at SIUE, have a GPA of at least 2.75 in all subject area content courses ;

■ Completed all specific program requirements (completion of all required content and professional education courses a "C" or better);
- Completed all University requirements:

■ All general education requirements, A minimum of 120 credit hours,
- At least 30 hours completed at SIUE,
- At least 60 hours completed at a regionally accredited 4 -year institution;

■ Completed all skills courses (or approved equivalents) with a C or better

■ ENG 101, ENG 102, SPC 101/103, RA 101, QR 101/MATH 150 or higher;
- Passing score on the ICTS Test of Academic Proficiency or equivalent.
- Passing score on required Middle Level Content Area Test;
- Passing score on required Academic Proficiency Test (APT);
- Passing score on the SIUE Middle Level Education Senior Assignment;

■ Application filed for graduation by the first day of the anticipated graduation term.

\section*{Requirements for Secondary Teacher Licensure}

\section*{(Art/Music/Foreign Language K -12 or 9-12)}

Teacher Licensure is a sequence of professional courses leading to an initial teaching license. In the first two years, students complete a program of general education. During this time, students also enroll in CIED 100 - Introduction to Education or its equivalent from another accredited university, and pass the designated test of academic proficiency. During the third and fourth years, students ordinarily complete work in the major
teaching field and in professional education. Students must complete the mandatory preclinical hours prior to student teaching.
Students wishing to teach at the secondary level (grades 9-12) major in one of the following: art, biology, chemistry, earth and space science, English, foreign language, geography, history, mathematics, music, political science, or theatre. Students may choose one of two options:
■ Obtain a bachelor of arts degree in a major field and obtain teaching licensure through courses offered by the Department of Curriculum and Instruction in the School of Education, Health and Human Behavior. (For example, a bachelor of arts degree in history through the College of Arts and Sciences with teacher licensure.) This option requires that students take a full year of a foreign language.
■ Obtain a bachelor of science degree in a major field and obtain teaching licensure through courses offered by the Department of Curriculum and Instruction in the School of Education, Health and Human Behavior. (For example, a bachelor of science degree in history through the College of Arts and Sciences with teacher licensure.)

For both options, students major in an academic discipline other than education, and the degree is granted by the college that offers the appropriate major. Some disciplines do not offer the degree options identified above. Some majors require a minor. In order to choose the degree option that best suits their needs and career aspirations, students should consult with an advisor in the major field, who is responsible for monitoring general education requirements, and an advisor in the School of Education, Health and Human Behavior, who is responsible for monitoring professional education and licensure requirements.
Regardless of the degree option chosen, teacher licensure requires admission into teacher education through the School of Education, Health and Human Behavior, professional education courses, pre-clinical hours, and student teaching. Students need to be advised both by their major advisor and by an education advisor from the School of Education, Health and Human Behavior Student Services as soon as possible.

\section*{Admission Requirements for Initial Teacher Licensure (K-12)}

To be considered for admission into the teacher licensure program, students must:

■ have a cumulative grade point average of 2.5 or higher and have an SIUE GPA of 2.5;

■ pass the Illinois Licensure Testing System Test of Academic Proficiency
- receive a grade of C or above in five skills courses or equivalent, and
■ complete successfully the introductory course, CIED 100, or its equivalent, with a grade of C or better.
Please note that 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 certificates. 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 programs.

\section*{General Education and Degree Requirements}

Some programs may take more than eight semesters for completion of licensure requirements, depending on the teaching fields selected. Complete Skills Option A or B

\section*{Foundations}

ENG 101 ENG 102 ACS 101 RA 101
QR 101

\section*{Liberal Arts}
(Fine Arts/Humanities, Natural Science/Mathematics and Social Sciences)

\section*{Interdisciplinary Studies}

Major in Teaching Field ( \(36-76\) hours)
See departmental outlines for specific information for each major.** Students may be required to complete a teaching methods course within the major.

\section*{Minor, Second Teaching Field, or Supporting Courses (up to 32 hours)}

Depending on the major, students may be required to complete a minor for broad fied licensure. Others may take courses that support their major but do not constitute a complete minor. Please consult the content major advisor for details.

\section*{Professional Education}

Art, health education, music, and physical education follow a different set of professional education requirements as listed in the appropriate sections of the catalog. A grade of C or better is required in all professional education courses.
\begin{tabular}{llll} 
CIED 100 & CI 315a & CI315b & Cl 352 \\
CI440 & EPFR315 & EPFR 320 & SPE 400
\end{tabular}
** Courses that carry the major prefix cannot be used to meet general education requirements; however, minor courses can be used to meet general education requirements.

\section*{Additional University Requirement}

The University requires students to submit a senior project. This requirement is an integral part of the program. Details are available from the student's major advisor.

\section*{Educational Leadership}

Alumni Hall, Room 1118
siue.edu/education/edld/

\section*{Professors}

Holt, Janet K. (Executive Director, Illinois Education Research Council), Ph.D., 1994, Southern Illinois University Carbondale
Knowlton, David S., Ed.D., 1998, University of Memphis
Liu, Yuliang, Ph.D., 2000, Texas A \& M University
Nelson, Wayne A. (Faculty Fellow), Ed.D., 1989, Virginia Polytechnic Institute and State University
Puchner, Laurel D. (Chair), Ph.D., 1998, University of Pennsylvania
Smith, Curtis A., Ph.D., 1985, Ohio State University

\section*{Associate Professors}

Morice, Linda, Ph.D., 1992, Saint Louis University
Thomeczek, Melissa, Ph.D., 2002, Indiana State University
Yu, Tianlong, Ed.D., 2002, State University of New York at Binghamton

\section*{Assistant Professors}

Buckley, Phillip, Ph.D.,2011, University of Pennsylvania
Logue, Jennifer, Ph.D., 2009, University of Illinois at Urbana-Champaign
Reeves, Alison, Ph.D., 2006, University of Arizona
Van Tuyle, Vicki, Ed.D., 2008, Western Illinois University
The Department of Educational Leadership primarily offers graduate degree programs. However, the faculty provide a number of support courses that are integral to all undergraduate teacher education programs.

\section*{Kinesiology and Health Education}

Lukas Annex, Suite 2616
siue.edu/education/khe

\section*{Professors}

Lox, Curt L (Dean)., Ph.D., 1994, University of Illinois
Cluphf, David. J., Ed.D., 1999, West Virginia University

\section*{Associate Professors}

Kirk, Erik, Ph.D. (Chair), 2004, University of Kansas
Klein, Nicole Aydt, Ph.D., 1995, University of Texas-Austin

\section*{Assistant Professors}

Cathorall, Michelle, Dr.PH., 2013, University of North Carolina-Greensboro
Guilford, Brianne, Ph.D., 2013, University of Kansas
Henry, Dayna, Ph.D., 2010, Indiana University
Ross-Stewart, Lindsay, Ph.D., 2009, University of North Dakota
Smith, Bryan, Ph.D., 2002, University of Missouri-Columbia
Webb, Benjamin, PhD, 2014, Pennsylvania State University
Wooten, Josh, Ph.D., 2008, Texas Woman's University
Xin, Huaibo, Dr.PH., 2011, University of North Carolina-Greensboro

\section*{Degree Programs}

Bachelor of Science, Exercise Science
Bachelor of Science, Health Education
Area of Interest:
Community Health
Bachelor of Science, Nutrition

\section*{Exercise Science}

\section*{Program Description}

The Exercise Science program combines coursework in both the basic sciences and exercise sciences along with real-world internship experiences to provide students with the preparation needed to excel in a variety of professional health and fitness settings. SIUE's Exercise Science degree provides exceptional preparation for graduate and professional training in a wide range of fitness and medical fields. The program is based upon
the knowledge, skills, and abilities outlined by the American College of Sports Medicine's and the National Strength and Conditioning Association's professional certifications.

The Exercise Science program at SIUE provides students with a solid academic foundation in anatomy, physiology, and chemistry along with cutting edge courses in applied exercise science and rehabilitation. Major courses offered include: functional anatomy, biomechanics, exercise assessment, biology of cardiovascular disease, principles of strength and conditioning, and exercise physiology. The program is structured to provide students with the opportunity to develop the skills and abilities that are critical in the growing fields of health, fitness, medicine, and physical and occupational rehabilitation.

\section*{Program Overview and General Department Information}

\section*{Admission}

To be admitted to the Exercise Science major, students must:
\(\square\) earn a grade of C or better in Biology 140 or Biology 150 or its equivalent
- earn a C or better in Chemistry 120a and Chemistry 124a or Chemistry 121a and 125a or their equivalents

■ earn a B or better in KIN 275, Introduction to Exercise Science

■ have a cumulative grade point average of 2.75 or higher.

Direct Admission for High School Students
High school students with a strong academic record may apply for direct admission into the Exercise Science major. Students must have earned at least a 25 Composite ACT score (1150 SAT) and at least a 3.25 high school grade point average (on a 4-point scale) to be eligible for direct admission to the program.

This admission is contingent upon the student meeting state and program-specific retention requirements while a student at SIUE.

\section*{Retention}

To remain in good standing in the Exercise
Science program, students must:
■ maintain a GPA of 2.75 or higher
■ achieve a grade of C or better in all major courses.

Students falling below the required 2.75 GPA will be placed on departmental probation for
one year. Students not regaining the required 2.75 GPA following this period will be dropped from the program and withdrawn from all Kinesiology and Health Education courses. Students may reapply to the Exercise Science major once their GPA has reached 2.75. Students may only be on departmental probation once during their academic career and if a student's GPA falls below the required 2.75 , he or she will not be allowed to reapply to the Exercise Science program.

\section*{Transfer}

Transfer students may be required to complete additional hours in general education to meet degree requirements.

\section*{General Education Requirements}

\section*{Foundations Courses}

ENG 101 ENG 102 QR 101 RA 101 ACS 101

\section*{Breadth Areas}

Fine \& Performing Arts (BFPA) - Any BFPA course
Humanities (BHUM) - Any BHUM course (PHIL 321 or ACS 201 is recommended)
Information \& Communication in Society (BICS) - ACS 204 (or any BICS)
Life Science (BLS) - BIOL 140 or 150 (C or better)
Physical Science (BPS) - CHEM 120a/124a or CHEM 121a/125a (C or better)
Social Science (BSS) - Any BSS course (PSYC 111 is recommended)

\section*{Experiences}

Lab (EL) - CHEM 124a/125a
Health (EH) - HED 111 (or any EH elective)
New Freshman Seminar (NFS)
Global Cultures - EGC
United States Cultures - EUSC
Interdisciplinary Course
Major Requirements
\begin{tabular}{llll} 
KIN 275 & KIN 310 & KIN315 & KIN 316 \\
KIN 319 & KIN 350 & KIN412 & KIN 416 \\
KIN417 & KIN418 & KIN426 & KIN 460
\end{tabular}

KIN 464
Approved Major Electives (18 hours)
BIOL 151 BIOL 220 BIOL 250 CHEM120B/124B
CHEM 121B/125B
CHEM 451 HED 201 HED 360 KIN 211
KIN \(250 \quad\) KIN \(355 \quad\) KIN \(445 \quad\) KIN 460
KIN 496 MATH 150 NURS 234 PHIL 320
PHIL 321 PHYS 131 PHYS 132 PSYC 201
PSYC203 PSYC204 PSYC431

\section*{Electives (24 hours)}

Exercise science students may tailor their elective courses to meet their career and graduate school goals. The exercise science program has established pre-professional and graduate
school elective suggestions that are commonly required for admission in a wide range of allied health programs. Exercise science students may choose elective groups in pre-physical therapy, pre-occupational therapy, pre-medical school, exercise physiology, and health and corporate wellness.

\section*{Senior Assignment and Clinical Internship}

Students are required to complete a community based senior assignment project. The exercise science senior assignment challenges students
to apply their formal course training into an meaningful and impactful project with community partner. In addition all exercise science must complete a 200 hour internship in a community based allied health setting. The internship provides provides students with their first professional experiences. Exercise science students have completed their internships in physical and occupational therapy organization, hospital and medical centers, research centers, strength and conditioning organizations, and a wide range of health focused businesses.

\section*{Sample Curriculum for the Bachelor of Science in Exercise Science}

Fall Semester
Year 1
CHEM 120A/121A (BPS*) . . . . . . . . . . . . . . . . . . . . . . . . . . . 3-4

CHEM 124A/125A (*EL) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 1
ENG 101 - English Composition I . . . . . . . . . . . . . . . . . . . . . . . . 3
Breadth Social Science (BSS) . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
ACS 101 -Public Speaking . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .13-14
Year 2
BIOL 240a - Human Anatomy (BLS, EL) . . . . . . . . . . . . . . . . . . 4
HED 111 - Personal Health (EH) or EH Elective . . . . . . . . . . . . . 3
KIN 319............................................................ . . . . 3
Fine \& Performing Arts (BFPA) . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Life, Physical or Social Science/US Culture (EUSC) . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16
Year 3
KIN 350 - Exercise Physiology. . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
KIN 315 -Functional Anatomy . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
KIN 310 - Exercise Psychology . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
KIN Elective. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Life, Physical or Social Science . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15
Year 4
KIN 412 - Biology of Cardiovascular and Metabolic Disease . . . . 3
KIN 418 - Physical Activity \& Public Health . . . . . . . . . . . . . . . . . . 3
KIN 460 - Internship in Exercise Science . . . . . . . . . . . . . . . . . . . 3
KIN Elective. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Life, Physical, or Social Science (*) . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15

Spring Semester
Year 1
KIN 275 - Introduction to Exercise Science . . . . . . . . . . . . . . . . . 3
BIOL 140/150 (BLS*). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3-4
New Freshman Seminar (NFS) . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
RA 101 .......................... . . . . . . . . . . . . . . . . . . . . . . . . 3
ENG 102 -English Composition II. . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .15-16
Year 2
KIN Elective.
KIN Elective.
BIOL 240 b Breadth Humanitio (BHUM) Or QR 101 - Quantitative Reasoning ..................
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16
Year 3
KIN 417 Exercise for Special Populations . . . . . . . . . . . . . . . . . . 3
KIN 316 - Biomechanics of Human Movement . . . . . . . . . . . . . . . 3
IS Course . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
KIN 416 - Exercise Assessment/Programming . . . . . . . . . . . . . . 3
Global Cultures (EGC) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15
Year 4
KIN Elective. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
KIN 426 - Cardiac and Pulmonary Rehabilitation . ............. . . 3
KIN Elective. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
KIN 464 - Senior Assignment in Exercise Science . . . . . . . . . . . 3
STAT 107 or ACS 204 (or any BICS) . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15

The University requires students earning a B.S. Degree to complete at least eight (8) courses in the sciences (life, physical, or social) (*), including, as a part of those eight courses, two (2) courses designated as labs (EL).

\section*{Graduation Requirements}
- Complete all specific program requirements.

■ Complete all University requirements including:
■ All general education requirements
- A minimum of 120 credit hours
- At least 30 of which must be completed at SIUE
- At least 60 of which must be completed at a regionally accredited 4-year institution
- A minimum cumulative grade point average of 2.0
- File an Application for Graduation by the first day of the term in which you plan to graduate.

\section*{Health Education}

\section*{Program Description}

Drawing from the biological, social, and behavioral sciences, the program in Health Education provides knowledge and skills essential for functioning as a Health Educator in today's challenging world. Students wishing to study Health Education must apply in the Office of Academic Advising.

\section*{Career Opportunities}

The Health Education program provides the knowledge and skills necessary to become certified as a Health Education Specialist (CHES). Health educators find employment opportunities in public health agencies; volunteer and private agencies; hospitals and other health care settings; local, state and national governmental agencies; as well as business and industrial settings. Interested students should contact a health education advisor in the Department of Kinesiology and Health Education in the Lukas Annex.

\section*{Program Overview and General Department Information}

\section*{Admission}

To be admitted students must:
■ have a minimum cumulative GPA of 2.5
■ Complete ENG 101 and 102 with grades of C or better.

\section*{Direct Admission for High School Students}

High school students with a strong academic record may apply for direct admission into the Health Education major. Students must have earned at least a 25 Composite ACT score (1150 SAT) and at least a 3.25 high school grade point average (on a 4-point scale) to be eligible for direct admission to the program.

This admission is contingent upon the student meeting state and program-specific retention requirements while a student at SIUE.

\section*{Retention}

To be retained, majors must:
■ maintain a GPA of 2.5 in their SIUE coursework
■ obtain a grade of B or better in HED 111
■ obtain grades of C or better in all HED major classes

Health Education students falling below the required retention requirements will be placed on probation for one semester. Students not regaining retention standards following this period will be dropped from the major and withdrawn from all Kinesiology and Health Education courses. Students may reapply to the HED program once the retention standards have been met.

\section*{Transfer}

Transfer students may be required to complete additional hours in general education to meet certification requirements.

\section*{General Education Requirements for the Major}

Foundations Courses
ENG 101 ENG 102 RA 101 ACS 101
QR 101

\section*{Breadth Areas}

Fine \& Performing Arts (BFPA) - Any BFPA course
Humanities (BHUM) - Any BHUM course
Information \& Communication in Society (BICS) -
STAT 107 or STAT 244
Life Science (BLS) - BIOL 205
Physical Science (BPS) - Any BPS course
Social Science (BSS) - At least 2 BSS courses

\section*{Experiences}

Lab (EL) - Any EL
Health (EH) - HED 111 or 210 or 220 or 230 or 240
New Freshman Seminar (NFS) - Any NFS
Global Cultures - ENSC 330
United States Cultures (EUSC) - Any EUSC
Interdisciplinary Course
Degree Requirements B.S.
Health Education Core Major Requirements
HED 111 HED 210 HED 220 HED 230
HED 240 HED 305 HED 313 HED 355
HED 363 HED 370 HED 375 HED 405
HED 455 HED 490 HED 491 HED 495
HED 498 HED 499
Approved Major Electives ( 6 or more hours from the following or from appropriate disciplines approved by the advisor)
HED 462 HED 464 HED 470 HED 489

KIN \(270 \quad\) KIN 334
Students are required to complete a senior assignment. Successful completion of an appropriate internship culminates the student's professional preparation.

\section*{Sample Curriculum for the Bachelor of Science, Health Education}

Fall Semester
Year 1
ENG 101 (NFS) - English Composition I . . . . . . . . . . . . . . . . . . . . 3
RA 101 - Reasoning \& Argumentation . . . . . . . . . . . . . . . . . . . . . . . . 3
ACS 101 -Public Speaking . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Any Breadth Social Science (BSS) . . . . . . . . . . . . . . . . . . . . . . . 3
Life, Physical or Social Science with a lab (EL) . . . . . . . . . . . . . . 3
Total ............................................................. . . . . 15
Year 2
Breadth Physical Science (BPS; *) . . . . . . . . . . . . . . . . . . . . . . . . 3
Breadth Fine \& Performing Arts (BFPA) . . . . . . . . . . . . . . . . . . . . 3
Breadth Humanities (BHUM) . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Any Life, Physical, or Social Science (BLS/BPS/BSS) . . . . . . . . . 3
QR 101 - Quantitative Reasoning . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15
Year 3
HED 220 - Drug Use and Abuse . . . . . . . . . . . . . . . . . . . . . . . . . . 3
HED 230 -Emotional Health . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
HED 305 - Foundations of Health Ed . . . . . . . . . . . . . . . . . . . . . 3
HED 355 - Intro to Public Health . . . . . . . . . . . . . . . . . . . . . . . . . . 3
HED Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15

\section*{Year 4}

HED 363 - Consumer Health . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
HED 405 - Health Counseling . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
HED 455 - Intro Epidemiology. . . . . . . . . . . . . . . . . . . . . . . . . . 3
HED 490 -Program Planning in Community Health Education .. 3
HED 491 - Program Planning \& Evaluation . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15

Spring Semester
Year 1
STAT 107 or 244 (BICS) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
ENG 102 -English Composition II. . . . . . . . . . . . . . . . . . . . . . . . 3
HED 111 (EH) - Personal Health . . . . . . . . . . . . . . . . . . . . . . . . . . 3
CMIS or CS 108 (recommended) . . . . . . . . . . . . . . . . . . . . . . . . 3
BIOL 111 (BLS; *) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15
Year 2
BIOL 205 (BLS; ; ; EH) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
ENSC 330 (EGC; *). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Experience USC (EUSC) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
LS/PS/SS with lab (*EL) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
HED Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15
Year 3
HED 210-Sexual Health. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
HED 240 - Intro to Human Nutrition . . . . . . . . . . . . . . . . . . . . . . . . 3
HED 313 - Violence and Injury Prevention . . . . . . . . . . . . . . . . . 3
HED 370 - Instructional Strategies . . . . . . . . . . . . . . . . . . . . . . . . 3
HED 375-Research Methods . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15

\section*{Year 4}

HED 495-Grant Writing in Health Education
HED 498 - Senior Research Assignment.
.3

HED 499 - Internship in Community Health Education.
Interdisciplinary Studies (IS) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15

The University requires students earning a B.S. degree to complete at least eight (8) courses in the sciences (life, physical or social) (*), including, as part of those eight courses, two (2) courses designated as labs (EL).

\section*{Health Education Minor Option}

The Department of Kinesiology and Health Education offers a minor in health education, which may be selected by majors in any field. A minor in health education may assist those who wish to receive teacher certification in health, but it is still necessary to complete a major in an approved certification program. The minor consists of 21 semester hours. Students are required to take HED 111,305 , and 355 . The remaining 12 hours are chosen from other health education courses with the consent of an advisor.

\section*{Applicants to the HED minor must:}
- have a minimum cumulative grade point average of 2.5 or higher
- complete ENG 101 and 102 with grade of C or better

\section*{To be retained, minors must:}

■ maintain a GPA of 2.5 in their SIUE coursework
- obtain a grade of B or better in HED 111

\section*{- obtain a grade of C or better in all HED minor classes}

Health Education students falling below the required retention requirements will be placed on probation for one semester. Students not regaining retention standards following this period will be dropped from the minor and withdrawn from all Kinesiology and Health Education courses. Students may reapply to the HED minor once the retention standards have been met.

\section*{Graduation Requirements}

■ Complete all specific program requirements.
- Complete all University requirements including:
- All general education requirements
- A minimum of 120 credit hours
- At least 30 of which must be completed at SIUE
- At least 60 of which must be completed
at a regionally accredited 4-year institution
- A minimum cumulative grade point average of 2.0
■ File an Application for Graduation by the first day of the term in which you plan to graduate
■ Earn a C or better in all HED major classes

\section*{Nutrition}

\section*{Program Description}

The Bachelor of Science in Nutrition focuses on the study of foods and nutrients and their effect on the health of individuals. The program combines coursework in both the basic sciences and nutritional sciences to provide students with the preparation needed to excel in a variety of professional nutrition and health settings. It provides exceptional preparation for graduate and professional training in a wide range of nutrition, health and medical fields.

The BS in Nutrition major emphasizes intensive study in biological and physical sciences as a basis for understanding the science of nutrition and the relationships between nutrients and human health. Core course requirements focus on human nutrition with areas of study in energy metabolism, proteins, vitamins, minerals, community nutrition and diet in the prevention and treatment of diseases. Students earning a BS in Nutrition will have an in-depth knowledge of the science of nutrition and a solid foundation in applied science. The program is structured to provide students with the opportunity to develop the skills and abilities that are critical in the growing fields of nutrition, health and medicine.

\section*{Program Overview and General Department Information}

\section*{Admission}

To be admitted to the nutrition program, students must:
- earn a grade of C or better in Biology 140 or Biology 150 or its equivalent
\(\square\) earn a C or better in Chemistry 120a and Chemistry 124a or Chemistry 121a and 125a or their equivalents
■ earn a B or better in KIN 275, Introduction to Careers in Nutrition and Exercise Science

■ have a cumulative grade point average of 2.75 or higher.

\section*{Application Deadline: Ongoing \\ Direct Admission Program}

High school students with a strong academic record may apply for direct admission into the Nutrition major. Students must have earned at least a 25 Composite ACT score (1150 SAT) and at least a 3.25 high school grade point average (on a 4-point scale) to be eligible for direct admission to the program.

This admission is contingent upon the student meeting state and program-specific retention requirements while a student at SIUE.

\section*{Additional Requirements for International Applicants:}

In addition to the requirements for admission listed above, international applicants whose native language is not English must demonstrate English language proficiency as outlined by International Students Admissions.

\section*{Retention}

To remain in good standing in the Nutrition program, students must:
■ maintain a GPA of 2.75 or higher
\(\square\) achieve a grade of C or better in all major courses.

Students falling below the required 2.75 GPA will be placed on departmental probation for one year. Students not regaining the required 2.75 GPA following this period will be dropped from the program and withdrawn from all Kinesiology, Health Education, and Nutrition courses. Students may reapply to the Nutrition major once their GPA has reached 2.75 . Students may only be on departmental probation once during their academic career and if a student's GPA falls below the required 2.75 , he or she will not be allowed to reapply to the Nutrition program.

\section*{Transfer}

Transfer students may be accepted on a space available basis and must have a minimum GPA of 2.75 and completed KIN 275 (or equivalent) with a B or better and BIOL 140 or BIOL 150 (or equivalent) and CHEM 120a/124a or CHEM 121, 125a (or equivalent) with a C or better to be considered for acceptance. Transfer credit for courses will be evaluated by the Registrar.

\section*{General Education Requirements for the Major}

\section*{Foundations Courses}

ENG 101 ENG 102 RA 101 ACS 101 QR 101

\section*{Breadth Areas}

Fine \& Performing Arts (BFPA) - Any BFPA course
Humanities (BHUM) - Any BHUM course
Information \& Communication in Society (BICS) - Any BICS course
Life Science (BLS) - BIOL 140/150, BIOL 240a, BIOL 240b, BIOL 250
Physical Science (BPS) - CHEM 120a/121a, CHEM 120b/121b
Social Science (BSS) - PSYC 111

\section*{Experiences}

Lab (EL) - CHEM 124a/125a
Health (EH) - NUTR 205
New Freshman Seminar (NFS) - Any NFS
Global Cultures (EGC) - Any EGC course
United States Cultures (EUSC) - SOC 111
Interdisciplinary Course
Any IS course
Major Requirements
\begin{tabular}{llll} 
NUTR 205 & NUTR 210 & KIN 211 & HED 240 \\
KIN 275 & NUTR 319 & NUTR 327 & KIN 355 \\
NUTR 401 & NUTR 408 & NUTR409 & NUTR 410 \\
NUTR411 & KIN412 & NUTR 464 &
\end{tabular}

\section*{Electives (16 hours)}

Nutrition students may tailor their elective courses to meet their career and graduate school goals. The nutrition program has established pre-professional and graduate school elective suggestions that are commonly required for admission in a wide range of allied health programs that include dietetics, pre-medical, exercise physiology, and health and corporate wellness.

\section*{Senior Assignment}

Students are required to complete a community based senior assignment project. The nutrition senior assignment challenges students to apply their formal course training into a meaningful and impactful project with a community partner. Nutrition students typically complete their projects at hospital and medical centers, research centers, strength and conditioning organizations, and a wide range of health focused businesses.

\section*{Sample Curriculum for the Bachelor of Science, Nutrition}

\author{
Fall Semester
}

Year 1
ENG 101 (NFS) - English Composition I . . . . . . . . . . . . . . . . . . . . 3
ACS 101 -Public Speaking . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
BIOL 140 - Human Biology (BLS) . . . . . . . . . . . . . . . . . . . . . . . . . 3
PSYC 111 -Psychology (BSS) . . . . . . . . . . . . . . . . . . . . . . . . . . 3
CHEM 120A - General, Orgc \& Biol Chemistry (BPS*) or CHEM 121A - General Chemistry3-4

CHEM 124A - General, Orgc \& Biol Chemistry Lab (EL*) or CHEM 125A-General Chemistry Lab I (EL*) 1

Spring Semester
Year 1
ENG 102 - English Composition II.
BIOL 250 - Bacteriology
BIOL 240A - Anatomy \& Physiology |* . . . . . . . . . . . . . 4
SOC 111 - Introduction to Sociology . . . . . . . . . . . . . . . . . . . . . . 3
CHEM 120B - General, Orgc \& Biol Chemistry (BPS*)
or CHEM 121B - General Chemistry (BPS*). . . . . . . . . . . . . 3-4
CHEM 124B General, Orgc \& Biol Chemistry Lab (EL*) or CHEM 125B - General Chemistry Lab II (EL*) . . . . . . . . . . . . . 1
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 17-18

Year 2
NUTR 205 - Food Science (EH) . . . . . . . . . . . . . . . . . . . . . . . . . . 3
RA 101 - Reasoning and Argumentation . . . . . . . . . . . . . . . . . . . . 3
BIOL 240B - Anatomy and Physiology II*. . . . . . . . . . . . . . . . . . . . 4
Breadth Fine and Performing Arts (BFPA) . . . . . . . . . . . . . . . . . . . 3
Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16
Year 3
NUTR 319 - Nutrition Biochemistry . . . . . . . . . . . . . . . . . . . . . . . . 3
NUTR 327 - Lifecycle Nutrition . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
KIN 211 - Medical Terminology . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Breadth Humanities (BHUM) . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total ................................................................... . . . . 15
Year 4
NUTR 408 -Food Service Management I . . . . . . . . . . . . . . . . . . 3
NUTR 409 - Large Quantity Food Prep . . . . . . . . . . . . . . . . . . . . . 3
NUTR 411 - Intro Medical Nutrition Therapy . . . . . . . . . . . . . . . . . 3
Experience Global Culture (EGC) . . . . . . . . . . . . . . . . . . . . . . . . . 3
Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2
Total . ................................................................ . . . . 14

Year 2
NUTR 210 - Food and Culture (EH) . . . . . . . . . . . . . . . . . . . . . . . 3
HED 240 - Intro to Applied Nutrition . . . . . . . . . . . . . . . . . . . . . . . 3
KIN 275 - Introduction to Exercise Science . . . . . . . . . . . . . . . . . . 3
Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
QR 101 - Quantitative Reasoning . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15
Year 3
NUTR 401 - Nutrition Ed \& Counseling . . . . . . . . . . . . . . . . . . . . . 3
KIN 355 - Sports Nutrition and Supplements . . . . . . . . . . . . . . . . 3
Breadth Information and Communication (BICS). . . . . . . . . . . . . . 3
Interdisciplinary Studies (IS) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15
Year 4
NUTR 410 - Food Service Management II . . . . . . . . . . . . . . . . . . 3
NUTR 464 - Senior Assignment in Nutrition . . . . . . . . . . . . . . . . . . 3
KIN 412 - Biology of CVD \& Metabolic Disease . . . . . . . . . . . . . . . 3
Elective . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12
The University requires students earning a B.S. degree to complete at least eight (8) courses in the sciences (life, physical or social) (*), including, as part of those eight courses, two (2) courses designated as labs (EL).

\section*{Graduation Requirements}

Students must complete all specific program and university requirements which include:
■ Complete all specific program requirements
■ Complete all general education requirements
■ Complete a minimum of 120 credit hours (at least 30 of which must be completed at SIUE and at least 60 of which must be completed at a regionally accredited 4 -year institution)
■ A minimum cumulative grade point average of 2.75
■ Bachelor of Science requires completion of eight lecture courses in life, physical or social science, including two with labs (EL). Check the Course Equivalency Guides (CEG) at siue. edu/transfer for approved courses.

\section*{Psychology}

Alumni Hall, Room 0118
siue.edu/education

\section*{Professors}

Daus, Catherine S., Ph.D., 1994, Purdue University
Ferguson, Eva.D., Ph.D., 1956, Northwestern University
Hupp, Stephen D.A., Ph.D., 2002, Louisiana State University
Jewell, Jeremy D., Ph.D., 2001, University of Texas-Austin
Meinz, Elizabeth J., Ph.D., 1998, Georgia Institute of Technology
Nordstrom, Cynthia, Ph.D., 1991, Akron University
Pomerantz, Andrew M., Ph.D., 1996, St. Louis University

\section*{Associate Professors}

Bartels, Lynn E. Ph.D., 1991, University of Akron
Dudley, Michael G., Ph.D., 2005, University of Kentucky
Everett, Gregory E., PhD., 2005, University of Southern Mississippi
Pawlow, Laura A., Ph.D., 2002, University of Southern Mississippi
Pettibone, Jonathan C., Ph.D., 2000, University of South Carolina
Rose, Paul (Chairperson), Ph.D., 2003, State University of New York - Buffalo
Rosnick, Christopher B., PhD., 2005, University of South Florida

Segrist, Dan J., Ph.D., 2000,
Southern Illinois University at Carbondale

\section*{Assistant Professors}

McKenney, Elizabeth L. W., PhD, 2010, University of Florida
Meeks, Thad, Ph.D., 2009, University of Georgia
Nadler, Joel, Ph.D., 2010,
Southern Illinois University at Carbondale
Ro, Eunyoe, Ph.D., 2010, University of Iowa
Shimizu, Mitsuru, Ph.D., 2009, State University of New York at Buffalo

\section*{Degree Programs}

Bachelor of Arts Degree, Psychology
Bachelor of Science Degree, Psychology

\section*{Program Description}

Undergraduate courses in psychology acquaint students with both the methods used and the knowledge gained by psychologists in their continuing efforts to understand mental processes and behavior. Students study basic psychological processes such as learning, cognition, and motivation; the development of behavior, personality, and coping skills from conception through old age; human interaction in social settings; and the effects of physical and psychological stress upon coping skills and mental health. Psychology is both a scholarly scientific discipline which seeks to understand and explain behavior and an applied profession which seeks to alleviate psychological problems and enhance human potential.

The psychology major prepares students for a variety of occupations and serves as preprofessional training for students wishing to attend graduate school and pursue careers as psychologists. The psychology major also is valuable preparation for other professional careers such as medicine, dentistry, law, and management.

\section*{Career Opportunities}

Students obtaining an undergraduate degree in psychology will find themselves well prepared to pursue a variety of careers in which basic knowledge of psychological processes is valuable, (e.g., personnel officers, laboratory technicians, sales or public relations specialists, customer services, suicide prevention workers, mental health or corrections workers, juvenile and youth services, child care workers, substance abuse counselors, statisticians and research analysts and a variety of social service workers).

Graduate training is required to become a licensed psychologist.

\section*{Program Overview and General Department Information}

Students must be advised and have a program plan on file with the department before being accepted as a major. There are two psychology advisors. The advisors may be used as a resource for information about the department, University and career opportunities, as well as course scheduling and program changes. The psychology advisors are located in Alumni Hall, Room 0129 and Founders Hall, Room 1110.

All students applying for a major in psychology should take PSYC 111 as a first course in psychology. Majors should complete the core sequence of PSYC 111, 200, 220 and 221 within the first four semesters after acceptance as majors. PSYC 220 must be successfully completed before students can enroll in 221. Majors and minors who desire to transfer credit from other colleges or universities must have their transcripts evaluated as soon as possible by a psychology advisor so that any credits accepted may be noted in their files.
Aspects of the psychology curriculum which may be of interest are: (1) the Robert J. McLaughlin Psychology Honors Academy, which allows student members to work closely with a faculty member to develop and complete an honor's thesis (2) independent research and field study courses, in which students may work in a laboratory under the supervision of a faculty member or in a field setting (e.g., a local organization) and (3) clubs and groups such as Psi Chi, Psychology club, and the Psychology book club.

\section*{Admission}

To be admitted to the psychology program as a major, students must have at least a 2.25 cumulative grade point average overall at SIUE or (for transfer students) at the university of origin.

\section*{Retention}

Majors earning below a 2.25 cumulative grade point average at SIUE for two consecutive semesters will be dropped from the psychology program. A grade of C or better is required for a psychology course to count toward the major. In addition, a student will be dropped from the psychology program after two unsuccessful attempts of PSYC 200, 220, 221, or 494. Unsuccessful attempts are defined as receiving the grades of W, WF, WP, WR, UW, U, D, or F in a class.

\section*{Transfer}

Students who wish to major in psychology and who transfer from community colleges must complete at least 15 hours of 300 - and \(400-\) level psychology courses at SIUE (or other accredited four-year institutions and SIUE combined). Students who wish to major in psychology and who transfer from accredited four-year institutions must complete at least 12 hours of psychology courses at SIUE. PSYC 220/221 may not be transferred in to satisfy SIUE Psychology requirements. If you are a transfer student just beginning your curriculum at SIUE comparable statistics and research methods courses completed at another four-year university can be evaluated for transfer credit on a case-by-case basis.

\section*{General Education Requirements for the Major}

Foundations Courses ( 15 hours)
Breadth Courses (18 hours)
Interdisciplinary Studies (3 hours)

\section*{Experiences}

Eight courses in fine \& performing arts and humanities including two semesters of the same foreign language Minor Courses (18-21 hours)
Electives
Degree Requirements for B.A. and B.S.
Major
\begin{tabular}{llr} 
PSYC 111 & PSYC 200 & PSYC 206 \\
PSYC 208 & PSYC 220 & PSYC 221 \\
PSYC 494 & PSYC 201, 203, or 204
\end{tabular}

Four electives at the 300 and 400 level ( 6 hours at the 400 level)
No more than 9 hours of 491, 492, 493, and 496 collectively (and no more than 6 hours in any one of these courses) may be applied toward Psychology major requirements. No more than 3 hours of these courses can count toward Psychology minor requirements (additional hours of these courses can count toward total credit hours needed for graduation).
PSYC 111, 200, 220, and 221 should be completed within four semesters after declaration as a major
The senior capstone is required of all senior psychology majors. For details, contact your psychology advisor.
The bachelor of science degree program is identical to the bachelor of arts degree program, including the admission, retention, and transfer policies, except that no foreign language is required. All students should plan their programs in consultation with their advisors. The senior assignment is required of all senior psychology majors. For details, contact your psychology advisor.

\section*{Sample Curriculum for the Bachelor of Arts in Psychology}
Fall Semester
Year 1
PSYC 111 - Foundations of Psychology (BSS) ..... 3
ACS 101 - Public Speaking or ACS 103-InterpersonalCommunication. 3
ENG 101 - English Composition I .....  3
Foreign Language 101 (BICS) ..... 4
Fine \& Performing Arts (BFPA) ..... 3
Total ..... 16
Year2
PSYC 201, 203, or 204 (Developmental PSYC course) ..... 3
PSYC 220 - Research Design \& Statistics ..... 3
Physical Science (BPS) with a lab (EL) ..... 3
Humanities (BHUM)/United States Culture (EUSC) ..... 3
Fine \& Performing Arts or Humanities ..... 3
Total ..... 15
Year 3
PSYC 208 - Cognitive Psychology ..... 3
PSYC Elective (300-400 level) ..... 3
Fine \& Performing Arts or Humanities ..... 3
Fine \& Performing Arts or Humanities ..... 3
Minor. ..... 3
Total ..... 15
Year 4
PSYC Elective (400 level) ..... 3
PSYC Elective (400 level) ..... 3
Minor. ..... 3
Elective ..... 3
Elective ..... 4
Total ..... 16
Spring Semester
Year 1
PSYC 200 - Careers in Psychology ..... 3
ENG 102 - English Composition II. ..... 3
Foreign Language 102 (EGC) ..... 4
RA 101 - Reasoning and Argumentation or PHIL 213 ..... 3
Life Science (BLS)/Health Experience (EH) ..... 3
Total ..... 16
Year 2
PSYC 206 - Social Psychology ..... 3
PSYC 221 - Research Design \& Statistics II ..... 3
Fine \& Performing Arts or Humanities ..... 3
Minor. ..... 3
QR 101 or MATH 150 ..... 3
Total ..... 15
Year 3
PSYC Elective (300-400 level) ..... 3
Interdisciplinary Studies (IS) ..... 3
Minor. ..... 3
Minor. ..... 3
Elective ..... 3
Total ..... 15
Year 4
PSYC 494 - Capstone Seminar in Psychology ..... 3
Minor. ..... 3
Minor. ..... 3
Elective ..... 3
Total ..... 12

\section*{Minor Requirements}

A minor in psychology consists of a minimum of 21 hours. PSYC 111 is required in addition to 18 hours of psychology electives, 6 must be at the 400 level and another 6 must be at either the 300 or 400 level. At least half of all upper-level required hours for a psychology minor must be completed at SIUE. A grade of C or better is required for a course to count toward the minor.

\section*{Graduation Requirements}
- Complete all specific program requirements.

■ Complete all University requirements including:
- All general education requirements
- A minimum of 120 credit hours
- At least 30 of which must be completed at SIUE
- At least 60 of which must be completed at a regionally accredited 4 -year institution
- A minimum cumulative grade point average of 2.25
- Bachelor of Arts only: one year of the same foreign language
- File an Application for Graduation by the first day of the term in which you plan to graduate.

\title{
Special Education and Communication Disorders
}

\author{
Founders Hall, Room 1101 \\ siue.edu/education/secd
}

\section*{Professors}

Parthasarathy, Teralandur K., Ph.D., 1987, University of Texas at Dallas
Scott, Victoria G. (Assistant Provost), Ed.D., 1995, University of Kansas
Weishaar, Mary K. (Associate Dean), Ph.D., 1984, Saint Louis University

\section*{Associate Professors}

Denkyirah, Anthony M., Ph.D., 2003, Southern Illinois University Carbondale
Chleboun, Steffany M., Ph.D., 2006, University of Nebraska - Lincoln
Forbringer, Linda L., Ph.D., 2003, Saint Louis University
Fuchs, Wendy W., Ph.D, 2008, Southern Illinois University Carbondale
Kirk, Stacie M., Ph.D., 2006, University of Kansas
Miner, Craig A., Ph.D., 1994, Southern Illinois University Carbondale
Panico, James V., Ph.D., 2005, University of Nebraska - Lincoln
Weishaar, Phil M., Ph.D., 1984, Saint Louis University

\section*{Assistant Professors}

Brady, Kathryn, Ph.D., 2009, University of Missouri-Columbia
James, Susanne, Ph.D, 2011, University of Kansas
King, Amie, Ph.D., 2010, University of Illinois at Urbana-Champaign
Klopfenstein, Marie, Ph.D., 2012, University of Louisiana-Lafayette

\section*{Instructors}

Awalt, Patricia, M.S., 1992, Southern Illinois University Edwardsville
Hopkins, Erlean, M.S., 1985, Southern Illinois University Edwardsville
Hudzik, Diane, M.S.Ed, 1978, Southern Illinois University Edwardsville

\section*{Degree Programs}

Bachelor of Science, Special Education
Bachelor of Arts, Speech-Language Pathology and Audiology
Bachelor of Science, Speech-Language Pathology and Audiology

\section*{Program Descriptions}

The Department of Special Education and Communication Disorders offers undergraduate and graduate programs in special education and speech-language pathology and audiology. Programs in the department combine classroom instruction and research and provide opportunities for practical experiences in a variety of settings.
The special education program offers Council for the Accreditation of Educator Preparationapproved programs at the undergraduate level for teaching licensure as a Learning Behavior Specialist (LBS I). The program offers three options leading to a Master of Science in Education degree: (1) teachers licensed in another area can obtain subsequent licensure as a Learning Behavior Specialist (LBS I), (2) teachers who have an LBS I license can obtain advanced licensure (LBS II) in Curriculum Adaptations, and (3) those not seeking additional licensure can obtain an M.S. Ed. with emphasis in Professional Development in Special Education. Teachers who have a master's degree and are licensed in another area can obtain Post-Master's Licensure as a Learning Behavior Specialist (LBS I).
The speech-language pathology and audiology program offers a graduate program that is accredited by the Council on Academic Accreditation in Audiology and SpeechLanguage Pathology (CAA). The undergraduate program offers course work preparing students for graduate education in speech-language pathology. Faculty, staff, and students in the speech-language pathology and audiology program also operate a full-time Speech, Language, and Hearing Center that provides the surrounding community with a rehabilitation/ habilitation facility for individuals of all ages with communication disorders.

\section*{Special Education}

\section*{Admission}

Admission to a major within the special education program requires satisfactory completion of the pre-special education program described in the section below. A student handbook and application forms for admission to the major are available in the School of Education, Health and Human Behavior Student Services, Founders Hall, Room 1110. Applications should be completed by March 1 for the fall semester. Application to the program is a competitive process. Applying to the program does not guarantee admission.

Requirements for admission to the major are:
- admission to SIUE;

■ passage of the ILTS Test of Academic Proficiency or a composite score of 22 or higher on the ACT Plus Writing is required for admission to the Special Education program. The scores must be no older than ten years at the time of admission to the program.

■ a cumulative grade point average of 2.5 or higher from all secondary institutions attended;

■ 42 semester hours of coursework;
- grades of C or higher in each course included in the 15 hours of skills coursework;
- a grade of B or higher in SPE 100 or an equivalent professional level course;
■ good academic standing at SIUE (if applicable)
- application for admission to the special education program and transcript of all course work completed. These should be submitted by March 1 for fall admission.
- Please submit to:

Undergraduate Advisor for Special Education
School of Education, Health and Human
Behavior Student Services
Southern Illinois University Edwardsville
Edwardsville, IL 62026-1062
The major application is not to be confused with the application for admission to SIUE. Applications for admission to the University are available on the SIUE Web site, siue.edu/apply, or from the SIUE Office of Admissions.
High school students with a strong academic record may apply for direct declaration to the Special Education Program. Students must have earned at least a 22 ACT or 1210 SAT and at least a 3.75 high school grade point average or rank in the top \(10 \%\) of their high school graduating classes to be eligible for direct declaration to the program. Early declaration will guarantee a student admission to the program contingent upon meeting the state requirements for full admission to the program outlined above.
For more information on gainful employment programs at SIUE, please visit siue.edu/ financialaid/certificate-programs2014.shtml

\section*{Retention}

Students must maintain a 2.5 grade point average overall and a 3.0 grade point average in professional and special education coursework. Students whose GPA falls below the required
level will receive a letter of warning stating that they will not be permitted to take additional special education courses until the GPA returns to the required level. Students who do not maintain a 2.5 cumulative grade point average and a 3.0 for professional and special education course work will be dismissed from the program. Students must have a grade of C or higher in all professional education courses prior to student teaching and prior to program completion.
Students dismissed from the department for academic deficiencies may appeal through the special education undergraduate advisor to the department's Student and Academic Affairs Committee. Students may be directed to reapply to the program or retake specific coursework to raise the cumulative grade average.

\section*{Transfer}

Transfer students should contact an advisor in the School of Education Student Services as early as possible to discuss transfer procedures.

\section*{General Education and Major Requirements}

University general education requirements are outlined in the General Education section of this catalog and included in the sample curriculum outline. Students majoring in Special Education should also complete the following:
\begin{tabular}{llll} 
PSYC 111 & HIST 200 or 201 & POLS 112 \\
GEOG 210 & SCI 241a & SCI 241b & MATH 112a \\
MATH 112b & SPE 100 & &
\end{tabular}

Professional Education
EPFR 315 EPFR 320
Special Education Requirements
\begin{tabular}{llll} 
SPE 290 & SPE 401 & SPE 402 & SPE 405 \\
SPE 412 & SPE 415 & SPE 416 & SPE417a \\
SPE 417b & SPE418 & SPE 421 & SPE422 \\
SPE 430 & SPE450 & SPE 470 & SPE471 \\
SPE 481 & SPE499 & &
\end{tabular}

\section*{Pre-Clinical Experiences}

Candidates progress through a series of developmentally sequenced field experiences for the full range of ages, types, and levels of abilities and collaborative opportunities that are appropriate to the learning behavior specialist. These experiences are supervised by qualified professionals. These experiences, which must be completed prior to student teaching, are arranged through the School of Education, Health and Human Behavior Student Services.

\section*{Student Teaching}

Student teaching is the culminating experience in the special education teacher preparation program. It is required to meet the degree
requirements of the Department, School and University, the licensure requirements of Illinois and standards of the Council for the Accreditation of Educator Preparation and the Council for Exceptional Children. Student teaching demands full-day involvement in an appropriate, approved public school program for students with disabilities. Therefore, students should avoid employment during the student teaching experience and should schedule student teaching at a time when they are free of other demands on their time and energy. Requests for an overload during student teaching must be approved by the department chair and the associate dean of the School of Education. Student teaching is not available during the summer term.
Official student teaching application packets are available from the during the fall and spring semesters. Admission to the major does not guarantee that students may engage in student teaching. Permission to take student teaching is based on (a) cumulative GPA 2.5 or higher, (b) a GPA of 3.0 or higher in Special Education and professional education coursework, (c) successful completion of all professional and special education coursework, and (d) passage of the Illinois Learning Behavior Specialist I content exam and the Special Education General Curriculum Test. Students must have a grade of C or higher in all professional education courses prior to student teaching and
prior to program completion. In addition, the candidate must pass the Assessment of Professional Teaching Exam prior to graduation.

\section*{Senior Assignment Project}

The Student Teaching Project is the senior assignment and culminating experience for the Undergraduate Special Education Program. It is a performance assessment which demonstrates the teacher candidate's ability to facilitate learning based on the expectations put forth by the Council for Exceptional Children (CEC) and Illinois Professional Teaching Standards. During the student teaching semester, each candidate will complete a performance assessment project that includes assessing his/her impact on student learning and reflecting on personal teaching abilities. This senior assignment enables students to demonstrate the integration of their general, professional, and special education coursework.

\section*{Student Council for Exceptional Children}

The special education program sponsors a chapter of the Student Council for Exceptional Children. Students are encouraged to become members of the chapter and to participate in meetings with guest speakers, develop community projects with persons who have disabilities, and read professional journals. Membership is open to all students.

\section*{Sample Curriculum for the Bachelor of Science in Special Education}
Fall Semester
Year 1
MATH 112a Mathematics for Elementary Teachers (BPS) . . . . . 3
ENG 101 English Composition I ..... 3
SPE 100 Disabilities in Society (EUSC) ..... 3
ACS 101 or 103-Oral Expression. ..... 3
SCl 241a (BLS, EL). ..... 3
Total ..... 15
Year 2
MUS 111, ART 111, or any BFPA (BFPA) ..... 3
PSYC 111 (BSS) ..... 3
HIST 200 (BSS, EL, EUSC) ..... 3
RA 101 or PHIL 213. ..... 3
HIST 200 (BSS, EL, EUSC) ..... 3
Total ..... 15
Year 3
SPE 401 Field Practicum One ..... 1
SPE 405 Foundations of Special Ed. ..... 3
SPE 430 Classroom Management and Beh. Support ..... 3
SPE 450 Instructional Planning and Collaboration. ..... 3
SPE 290 Language Development ..... 3
EPFR 320 Foundations of Education ..... 3
Total ..... 16
Spring Semester
Year 1
ENG 102 English Composition II ..... 3
HED 111 or any EH (EH) .....  3
MATH 112b Mathematics for Elementary Teacher (BPS) ..... 3
QR 101, MATH 150 or Higher ..... 3
SCl 241b Foundations of Science (BPS, EL). ..... 3
Total ..... 15
Year 2
HIST 201 (BSS, EL, EUSC). ..... 3
GEOG 210 (BPS) ..... 3
POLS 112 American National Government (BSS) ..... 3
Any BICS (BICS). ..... 3
EPFR 315 Educational Psychology . ..... 3
Total ..... 15
Year 3
SPE 402 Field Practicum Two ..... 2
SPE 416 Functional Curriculum Methods ..... 3
SPE 417a Introductory Reading and Language Arts Methods in Special Education ..... 3
SPE 415 Instructional \& Assistive Technology or SPE 470 Transition Planning. ..... 3
SPE 471 School and Family Partnerships .....  3
Interdisciplinary Studies (IS) ..... 3
Total ..... 17

\title{
Sample Curriculum for the Bachelor of Science in Special Education cont.
}


\section*{Speech Pathology and Audiology}

Undergraduate courses in speech-language pathology and audiology provide students with a scientific and clinical background for understanding communication disorders. Students acquire knowledge in speech and hearing science, normal processes and the development of speech, language and hearing. Students also study disorders of speech, language and hearing, review assessment methods and procedures in communication disorders and engage in clinical practicum.
A degree in speech-language pathology and audiology provides pre-professional training for students wishing to enter graduate school and pursue a career as a speech-language pathologist or audiologist. Students also are prepared for a variety of other career options.

\section*{Career Opportunities}

Students must complete graduate training to begin a career as a speech-language pathologist or audiologist. Students completing a graduate program in speech-language pathology are eligible for an IL license in speech-language pathology to work in the public schools, and licensure from the American Speech- LanguageHearing Association. Certified speech-language pathologists and audiologists serve more than 20 million Americans with communication disorders. Their responsibilities include the identification and evaluation of persons with communication disorders and the remediation of these disorders. They also work toward the prevention of disorders of speech, language, and hearing through public education, early identification of risk factors, and research into the causes and treatment of disorders.

Certified speech-language pathologists and audiologists find employment in a variety of
settings, including hospitals, community clinics, colleges and universities, state and federal agencies, industry, rehabilitation centers, and nursing homes. Some certified speech-language pathologists and audiologists enter public-school settings, where state and federal legislation has required service delivery to all children with communication disorders. Other certified speechlanguage pathologists and audiologists establish private practices or become affiliated with physicians. Employment possibilities are plentiful.
Career options are also available for students with a bachelor's degree in speech-language pathology and audiology. They include speech aide, speech assistant, or speech implementer. Some students with a bachelor's degree have found careers in medical sales, medical publications or rehabilitation administration. Others have pursued master's degrees in other areas including special education, other health-care fields, and some have entered medical school.

\section*{Admission}

Students must be declared majors to be admitted to the program. Declared majors must have a 3.0 GPA , have completed 42 hours of college level course work, and have been approved for admission by the program. To be considered for admission, students must submit the following information to the program: a 200 word selfstatement, a one-page resumé, transcripts, and an Application for Admission form. Application forms may be downloaded from the program's Web site at siue.edu/education/secd/undergrad/ speech-path-audio-under-overview.shtml.
Complete applications must be submitted by February 20th of spring semester for the following fall declaration. Admission to the program is a competitive process and not all applicants will be admitted. The application should be sent to:
SPPA Program Director
Campus Box 1147, SIUE
Edwardsville, IL 62026-1147

\section*{Direct Admit Policy}

Students with a strong academic record may be granted direct declaration to the SpeechLanguage Pathology and Audiology program. Students seeking direct admittance must have earned at least a 25 ACT or 1130 SAT and at least a 3.75 high school grade point average or rank in the top \(10 \%\) of their high school graduating classes to be eligible. Early declaration will guarantee a student admission to the program contingent upon meeting and maintaining the
following requirements:
- admission to SIUE

■ good academic standing at SIUE, if applicable
■ maintaining a combined GPA (all postsecondary work) of 3.0 or higher
■ completion of SPPA 201 with a B or better
- completion of 42 semester hours or more of college-level coursework
■ guaranteed admittance after submission of program application. Program application must be submitted during freshman year by calendar deadline.

\section*{Retention}

In order to be retained within the SpeechLanguage Pathology program, students must maintain the following requirements:
1. A 3.0 cumulative GPA, and
2. A 3.0 GPA in SPPA coursework, and
3. A grade of \(B\) or better in SPPA 201, and
4. Grade of C or higher all other coursework required for the major including 12 hours in related areas: behavioral science, biological science, physical science and statistics.
Students seeking more information about the major should contact the speech-language pathology undergraduate advisor in the School of Education, Health and Human Behavior Student Services (618) 650-3490 or the program director for speech-pathology and audiology (618) 650-5423.

\section*{Transfer}

Course work completed at regionally accredited institutions will be evaluated upon admission to the University. Results of transfer credit evaluations are available to students through CougarNet. For more information about transfer, please visit siue.edu/transfer.

\section*{Cooperative Education and Internships}

For enrollment licensure purposes, Universitysponsored cooperative education and internship participation is considered equivalent to full-time enrollment. This requires formal enrollment in an approved co-op or internship course through the Career Development Center.

\section*{Degree Requirements}

\section*{General Education Requirements}

Refer to General Education section of this catalog.
\begin{tabular}{llll} 
SPPA 201 & SPPA 231 & SPPA 310 & SPPA 312 \\
SPPA 320 & SPPA 321 & SPPA 322 & SPPA 441 \\
SPPA 442 & SPPA 444 & SPPA 446 & SPPA 449 \\
SPPA 461 & SPPA 471 & SPPA 497 & SPPA 499
\end{tabular}

STAT 107, Biology, Physical Science (PHYS 111 or Chemistry), PSYC 111, and PSYC 201 (may satisfy some general education requirements)

\section*{Bachelor of Arts}

In addition to the above, eight hours of foreign language are required for the Bachelor of Arts option.

\section*{Sample Curriculum for the Bachelor of Science in Speech-Language Pathology and Audiology}Fall SemesterYear 1
ENG 101 - English Composition I ..... 3
ACS 101 or 103 - Oral Expression ..... 3
Elective .....  3
Life Science (BLS) with a lab (EL) ..... 3
STAT 107 - Concepts of Statistics (BICS) ..... 3
Total ..... 15
Year 2
RA 101 or PHIL 213. ..... 3
Humanities (BHUM)/United States Culture (EUSC). .....  3
Life, Physical or Social Science/GLobal Cultures (EGC) ..... 3
Life, Physical or Social Science/Health Experience (EH) ..... 3
Elective ..... 3
Total ..... 15
Year 3
SPPA 231 - Phonetics. ..... 3
SPPA 310 - Fundamentals of Language Analysis ..... 3
SPPA 320 - Anatomy \& Physiology of the
Speech \& Hearing Mechanisms ..... 3
Interdisciplinary Studies (IS) ..... 3
Elective ..... 4
Total ..... 16
Year 4
SPPA 444 - Language Disorders ..... 3
SPPA 446 - Clinical Observations \& Procedures in Communication Disorders ..... 3
SPPA 461 - Basic Audiometry. ..... 3
SPPA 497 - Neuroanatomy and Physiology ..... 3
Total ..... 12

\section*{Leveling Coursework}

Students who already have a Bachelor's degree in a different field can complete selected coursework to prepare them to apply to graduate school in Speech-Language Pathology or Audiology. (Note that this coursework does not constitute a degree program and individual graduate programs may have additional requirements). To be eligible for this Option, students must:
1. have completed a BA or BS degree in another field
2. have been admitted to the University
3. apply, and be accepted, to the speech-language pathology program. (All application materials required). Deadline February 20 for following fall start.
Spring Semester
Year 1
ENG 102 -English Composition II. ..... 3
PSYC 111 - Foundations of Psychology (BSS) ..... 3
QR 101, MATH 150 or Higher ..... 3
Fine \& Performing Arts or Humanities (BFPA) ..... 3
Physical Science (BPS) with a lab (EL) ..... 3
Total ..... 15
Year 2
SPPA 201 - Human Comm \& Its Disorders ..... 3
PSYC 201 - Child Psychology (BSS) ..... 3
Life, Physical (PHYS 111 or chemistry) or Social Science ..... 3
Elective ..... 3
Elective ..... 3
Total ..... 15
Year 3
SPPA 312 - Normal Lang \& Speech Acquisition ..... 3
SPPA 321 - Hearing Science ..... 3
SPPA 322 - Speech Science. ..... 3
Elective ..... 3
Elective ..... 3
Total ..... 15
Year 4
SPPA 441 - Speech Sound Disorders in Children ..... 3
SPPA 442 - Intro to Voice, Fluency, and Motor Speech Disorders ..... 3
SPPA 449-Clinical Practicum/SPPA ..... 3
SPPA 471 - Aural Rehabilitation ..... 3
SPPA 499 - Senior Assignment. ..... 2
Elective ..... 3
Total ..... 17
Leveling Option Plan of Study
(Recommended)
Fall Semester
SPPA 231-Phonetics. ..... 3
SPPA 310-Fundamentals of Language Analysis ..... 3
SPPA 320-Anatomy \& Physiology of the Speech \&
Hearing Mechanism ..... 3
SPPA 461-Basic Audiometry . ..... 3
SPPA 497-Neuroanatomy and Physiology ..... 3
Spring Semester
SPPA 312-Normal Lang \& Speech ..... 3
SPPA 321-Hearing Science ..... 3
SPPA 322-Speech Science ..... 3
SPPA 441-Articulation Disorders. ..... 3
SPPA 442-Speech Disorders ..... 3

Optional coursework--Students have the option of taking the following courses:

SPPA 201-Human Communication \& Its Disorders SPPA 444-Language Disorders
SPPA 446-Clinical Observations \& Procedures in Communication Disorders
SPPA 471- Aural Rehabilitation*
*required for those apply to graduate programs in Audiology
In addition to the above recommended courses, students should complete coursework in biological science, physical science (PHYS 111 or chemistry), statistics and social/behavioral science. Acceptance of coursework that is 10 years or older is at the discretion of the faculty. Students have the option of completing the above coursework in 1 or 2 years.

Completion of the above plan of study provides students with the prerequisites necessary to apply for graduate programs in speech-language pathology or audiology but does not result in a second Bachelor's degree.

Students who already have a Bachelor's degree and seek a 2nd (undergraduate) degree in Speech-Language Pathology and Audiology will be required to meet additional SIUE requirements. These students will follow the traditional Plan of Study.

\section*{Graduation Requirements}

In addition to meeting all program requirements, students must also satisfactorily complete a culminating project in SPPA 499: Senior Assignment Seminar. Second-degree students within the program must also register for and attend SPPA 499: Senior Assignment Seminar.
Furthermore, students involved in the Undergraduate Research and Creative Activities (URCA) program, with faculty approval, may use their research project to satisfy exit requirements in the Senior Assignment.


\section*{School of Engineering}

The School of Engineering offers the bachelor of science degree with majors in civil engineering, computer science, computer engineering, construction management, electrical engineering, industrial engineering, and mechanical engineering, and a bachelor of arts degree in computer science. The bachelor's degree programs in civil engineering, computer engineering, electrical engineering, industrial engineering, and mechanical engineering are accredited by the Engineering Accreditation Commission of ABET, www.abet.org. The bachelor of science program in computer science is accredited by the Computing Accreditation Commission of ABET, www.abet.org. The construction management program is accredited by the American Council for Construction Education, www.acce-hq.org.

\section*{School of Engineering Mission Statement}

The mission of the School of Engineering is to provide excellent, innovative engineering, computer science and construction education to citizens of Illinois, the greater St. Louis metropolitan area and representatives of the global community. The school focuses on strong undergraduate education and graduate programs that serve the needs of full-time students and employed professionals. Faculty conduct basic and applied research and outreach activities in partnership with others who contribute to technological advancement in the fields of study offered.

\section*{School of Engineering Vision Statement}

The vision of the School of Engineering is to be a partnership of faculty, students, staff, alumni and other professionals who work together to provide the highest quality education and maintain innovative resources that support the technical growth and economic development of this region.

\section*{School of Engineering Core Values}

The school's faculty strive to exhibit and to instill in each graduate the following characteristics:
- technical excellence in their disciplines
- desire for excellence in all they do
\(\square\) respect for the rich diversity of humankind
■ effective communication capabilities
■ ability to provide leadership in innovative multidisciplinary teams

■ social, civic, and political responsibility built on an understanding of contemporary issues

■ commitment to ethical professional conduct and practice
■ environmental stewardship
- independent and innovative thought

■ pursuit of lifelong learning
Students interested in any of the degree programs offered by the School of Engineering should seek advice from the School of Engineering when they initially enroll in the University.

\section*{Admission to School of Engineering Programs}

Students admitted to programs offered by the School of Engineering shall have met University admission requirements and the following additional School of Engineering requirements:
■ completion of all academic development courses required by the University,
■ completion of science courses that will address high school deficiencies,
■ eligibility to enroll in MATH 125 - Pre-calculus or higher.
Students who plan to transfer to one of the School of Engineering programs must carry a grade point average of at least 2.0 on a 4.0 scale.
Students who are considering a major in any School of Engineering program should contact the Office of Engineering Student Services, telephone 618-650-5300, or the Dean's Office, telephone 618-650-2541. Early declaration and advisement by the School of Engineering will enable students to enroll in courses that are major-restricted, and to complete their programs with minimum conflicts within the shortest possible time.

\section*{Declaring Major}

Students admitted to the School of Engineering may enter as Pre-Engineering students and remain at this status until they take 300 - level engineering courses. Pre-engineering students are advised by the Office of Engineering Student Services according to the students' intended plan of study within the School. Pre-engineering students do not pay differential tuition, which is assessed to all other students in the School of Engineering. Once a student takes 300-level engineering courses, the student must then declare a major in one of the programs within the School of Engineering.

\section*{Enrollment in Upper-Division Engineering Courses}

Eligibility for upper-division courses in civil, industrial, and mechanical engineering requires
satisfactory completion of lower-division core courses and additional requirements for each major as outlined in the departmental sections that follow. Application forms for admission to upper-division engineering courses are available through departmental offices as well as the Office of the Engineering Student Services. Deadlines for application to upper-division status are March 15 for summer or fall semester admission, and October 15 for spring semester admission. The admissions committee of the appropriate department evaluates applications to upper division. Students whose applications are rejected may not register for upper-division engineering courses. If the rejection is based on academic performance, students may reapply when eligibility requirements are satisfied. If the rejection is based on failure to complete the requirements, students may reapply when the requirements are completed.
The other programs of the School of Engineering; computer science, construction management, computer engineering, and electrical engineering do not have upper division application process.

\section*{Transfer Students}

Transfer students wishing to enter one of the programs offered by the School of Engineering should contact Engineering Student Services for transfer credit evaluation at least 30 days before the beginning of the term for which entry is desired. Students must supply copies of the pertinent transcripts and any other materials such as course descriptions or syllabi that may be needed for the evaluation. Only chemistry, computer science, mathematics, physics, and engineering science courses completed with a grade of C or better will be considered for transfer credit toward completing a major or minor in the School of Engineering. In addition, only courses that are part of an ABET-accredited engineering program and that have been completed within the last 10 years will be considered for transfer credit toward any 300 - or 400 -level engineering course requirement.
Transfer students who satisfy part or all of the University general education requirements by transfer courses or a previous degree must also satisfy the School of Engineering humanities and social sciences requirements for the bachelor of science degree. Any remaining humanities and/ or social sciences requirements will be specified by an advisor in the Office of the Engineering Student Services.

\section*{Services to Students}

The School of Engineering provides a multitude
of support services to its students. These services include orientation for new services, advisement, counseling and assistance in networking, tutoring and mentoring, internship placement, and career planning. For more information, contact the Office of Engineering Student Services, telephone 618-650-5300, or the Dean's Office, telephone 618-650-2541.

\section*{Civil Engineering}

Engineering Building, Room 2056
siue.edu/engineering/civilengineering

\section*{Professors}

Cross, Brad, Ph.D., 1992, Johns Hopkins University
Morgan, Susan (Associate Dean, Graduate School), Ph.D., 1995, Clemson University
Panahshahi, Nader, Ph.D., 1987, Cornell University
Zhou, Jianpeng (Chair), Ph.D., 2003, University of British Columbia

\section*{Associate Professor}

Fries, Ryan, Ph.D., 2007, Clemson University

\section*{Assistant Professors}

Huang, Jianwei, Ph.D., 2010, Syracuse University Osouli, Abdolreza, Ph.D., 2010,

University of Illinois at Urbana-Champaign
Qi, Yan, Ph.D., 2010, Louisiana State University

\section*{Instructors}

Vaughn, Brent, M.S., 1999, Southern Illinois University Edwardsville

\section*{Program Description}

Civil Engineers create and maintain the essential infrastructure for society. They conceive, design, and construct bridges, buildings, foundations, highways, airports, water and wastewater treatment plants, waste management systems. They reduce pollution and improve transportation networks.
The Department of Civil Engineering offers a curriculum that provides students with a solid background in mathematics, physical science, and civil engineering. Elective courses are available in environmental, geotechnical, structural, and transportation engineering. Laboratory facilities are available for conducting basic environmental analyses, hydraulic experiments, material tests, soil mechanics procedures, and transportation studies. Baccalaureate graduates are prepared
to assist public and private employers or to pursue graduate study. All seniors are strongly encouraged to complete the Fundamentals of Engineering Examination as a first step towards achieving licensure as a professional engineer.

The mission of the Department of Civil Engineering, which assigns first priority to excellence in undergraduate education, is consistent with the mission of the School of Engineering and the University. Its educational objectives are dynamic and regularly reviewed by the program constituencies. They are available on the department's Web site, siue.edu/ engineering/civilengineering.

\section*{Career Opportunities}

Civil engineers work in a wide range of fields in both technical and managerial positions. Job opportunities can be found in consulting companies, industry and government agencies. Civil engineers work in offices and on job sites. They design, build, inspect, maintain, rehabilitate, and preserve buildings, bridges, treatment systems, roads - all the essential infrastructure for society. Due to the nature and importance of civil engineering, civil engineers are always needed.

\section*{Degree Program}

Bachelor of Science, Civil Engineering

\section*{Program Overview and General Department Information}

\section*{Enrollment in Upper-Division Civil Engineering Courses}

The following requirements must be met to enroll in upper-division civil engineering courses:

■ Satisfactory completion of all University and School of Engineering admission requirements;
- An approved application for enrollment in upper-division engineering courses;

■ Satisfactory completion of the lower-division courses CHEM 131, 135; CE 204, 206, 207L, 240, 242; ENG 101, 102; IE/MATH 106, MATH 150, 152, 250, 305; ME 262; PHYS 151, 151L, \(152,152 \mathrm{~L}\); and ACS101, with a grade point average of at least 2.0 for the above courses required for non-transfer students, transfer students from articulated programs, and Illinois resident transfer students; a grade point average of at least 2.25 for the above courses is required for other transfer students; and

■ A grade of C or better is required in all lower division math, science, and engineering courses.

\section*{Academic Status/Retention}

Students must maintain the following standards. Students who fail to do so will be placed on probation in the major.
- Maintain a cumulative grade point average of at least 2.0.
- Maintain a term grade point average above 1.0 in any term.
- Maintain a cumulative grade point average of at least 2.0 in all mathematics and science courses.

■ Maintain a cumulative grade point average of at least 2.0 in courses taught in the School of Engineering.
■ Maintain a cumulative grade point average of at least 2.0 in major courses numbered above 299.
- Receive no more than two failure grades, incomplete, and/or withdrawals in any combination for a single course required in the major.
Students placed on probation should seek immediate advisement and will be given the conditions required for removal from probation. If the conditions are not met, students are dropped from the major and may not enroll in upper-division School of Engineering courses without written departmental permission. After one year, students are eligible to re-apply for admission to the major. Students dropped from the major may direct a written appeal to the departmental academic standards committee.

\section*{Transfer}

Transfer students should contact the Engineering Student Services Office for a review of credentials and placement at least 30 days before the beginning of the term for which entry is desired. Credit will be reviewed using the following guidelines:
- A minimum grade of C is required in all chemistry, computer science, mathematics, physics, and engineering science courses applied to major or minor requirements.

■ 300- or 400-level engineering course requirements will not be considered for transfer unless completed within 10 years within an ABET-accredited engineering program.

\section*{General Education Requirements for the Major}

University general education requirements are outlined in the General Education section of this catalog and included in the sample curriculum outline.

\section*{Degree Requirements, Bachelor of Science Civil Engineering}
\begin{tabular}{llll}
\multicolumn{4}{l}{ Physical Science Breadth Courses } \\
CHEM 131 & CHEM 135 & MATH 150 & MATH 152 \\
MATH 250 & MATH 305 & PHYS 151 & PHYS 151L \\
PHYS 152 & PHYS 152L & & \\
Life Science Breadth Course* & & \\
\multicolumn{1}{l}{ Engineering Courses } \\
IE/MATH 106 & CE 204 & CE 206 & CE 207L \\
CE 240 & CE 242 & CE 315 & CE 330 \\
CE 330L & CE 342 & CE 343 & CE 354 \\
CE 354L & CE 376 & CE 380 & CE 415L
\end{tabular}

CE 460 CE 493 CE 416 or CE 455
ECE210 IE345 ME262 ME310
3 CEElectives
Fine \& Performing Arts Breadth Course
Humanities Breadth Course
PHIL 323
Social Science Breadth Course
ECON 111
Information \& Communication in Society Breadth Course STAT 380

Foundations Courses
ENG 101 ENG 102 ACS 103 IE 106
QR 101/MATH 150
IS Course
* The life science course must be selected with the approval of the Department. A curriculum guide with a list of courses is available on-line at siue.edu/engineering/civilengineering.

\section*{Sample Curriculum for the Bachelor of Science in Civil Engineering}
Fall Semester
Year 1
IE 106 -Engineering Problem Solving. ..... 3
CHEM 131 - Engineering Chemistry (BPS). ..... 4
CHEM 135 - Engineering Chemistry Lab (EL) ..... 1
ENG 101 - English Composition I ..... 3
MATH 150 -Calculus I (FQR) ..... 5
Total ..... 16
Year 2
CE 204 - Engineering Graphics \& CAD ..... 3
CE 240 - Statics ..... 3
MATH 250 - Calculus III (BPS) ..... 4
PHYS 152 - University Physics II (BPS) ..... 4
PHYS 152L - University Physics Lab II (EL) ..... 1
Total ..... 15
Year 3
CE 315-Fluid Mechanics. ..... 3
CE 342 - Structural Engineering I .....  3
CE 330 - Engineering Materials .....  2
CE 330L - Engineering Materials Lab .....  1
ME 310 - Thermodynamics. .....  3
Fine \& Performing Arts Breadth (BFPA) ..... 3
Interdisciplinary Studies (IS)/Global Cultures (EGC) ..... 3
Total ..... 18
Year 4
CE 416 - Engineering Hydrology (offered in fall) or CE 455 - Foundation Design (offered in spring) ..... 3
CE 460 - Municipal Infrastructure Design ..... 3
CE Elective I ..... 3
ECE 210 - Electrical Circuits .....  3
PHIL 323 - Engineering, Ethics, \& Professionalism (BHUM) ..... 3
Preparation for Fundamental of Engineering Exam ..... 0
Total ..... 15
Spring Semester
Year 1
ENG 102 - English Composition II. ..... 3
MATH 152 - Calculus II (BPS) .....  5
PHYS 151 - University Physics I (BPS) ..... 4
PHYS 151L - University Physics Lab I (EL) ..... 1
ACS 103 - Interpersonal Communication Skills (EUSC) ..... 3
Total ..... 16
Year 2
CE 206 - Civil Engineering Surveying ..... 2
CE 242 - Mechanics of Solids. ..... 3
MATH 305 - Differential Equations I ..... 3
ME 262 -Dynamics ..... 3
Life Science Breadth (BLS) ..... 3
ECON 111 - Macroeconomics (BSS) ..... 3
Total ..... 17
Year 3
CE 343 - Structural Engineering II. ..... 3
CE 354 - Geotechnical Engineering ..... 3
CE 354L - Geotechnical Engineering Lab ..... 1
CE 376-Transportation Engineering ..... 3
CE 380 - Environmental Engineering ..... 3
STAT 380 - Statistics for Applications (BICS) .....  3
Total ..... 16
Year 4
CE 415L - Applied Fluid Mechanics Lab ..... 1
CE 493 - Engineering Design ..... 3
CE Elective II. ..... 3
CE Elective III ..... 3
IE 345 - Engineering Economic Analysis. ..... 3
Health Experience (EH). ..... 0/2
Total ..... 3-15

\section*{Graduation Requirements}

A cumulative grade point average of 2.0 or higher is required for courses taught in the School of Engineering; a cumulative grade point average of 2.0 or higher is required for civil engineering courses numbered above 299; and students must complete a senior assignment included as part of CE 493 Engineering Design. In addition to fulfilling department requirements, students must complete all University requirements for graduation.

\section*{Computer Science}

Engineering Building, Room 2054
cs.siue.edu

\section*{Professors}

Weinberg, Jerry B., Ph.D., 1996, Vanderbilt University
White, William W., Ph.D., 1989, Ohio State University

\section*{Associate Professors}

Bouvier, Dennis J., Chair, Ph.D., 1994, University of Louisiana Lafayette
Fujinoki, Hiroshi, Ph.D., 2001, University of Southern Florida
Yu, Xudong W., Ph.D., 1992, Vanderbilt University

\section*{Assistant Professors}

Crk, Igor, Ph. D., 2010, University of Arizona
Ercal, Gunes, Ph.D., 2008, University of California - Los Angeles
Gamage, Thoshitha, Ph.D., 2011, Missouri University of Science and Technology
Mayer, Gary R., Ph.D., 2009, Arizona State University
McKenney, Mark, Ph. D., 2008, University of Florida

\section*{Instructors}

Klein, Steven, MS, 1999, Southern Illinois University Edwardsville Tornaritis, Socratis, MS, 1996, Southern Illinois University Edwardsville

\section*{Program Description}

The Department of Computer Science offers two undergraduate degree programs to facilitate entry into this vibrant discipline. The Bachelor of Science curriculum includes a solid core of software engineering, computer architecture, algorithms, data structures,
user-interface design, and operating systems courses, culminating in a two-semester software development project. In addition, this degree program contains a broad spectrum of mathematics, laboratory science, and elective computer science courses to fortify the core's foundation.

The Bachelor of Arts curriculum affords students more flexibility by supplementing the same core computing curriculum with a minor in another discipline or a second major as an alternative for some of the technical courses required in the Bachelor of Science program.

\section*{Career Opportunities}

Computer Science is the study of information and the processing, storage, retrieval and use of information. As such, a degree in Computer Science offers career opportunities in industries as varied as computer game development to medicine and healthcare. Contrary to the stereotype of a "computer programmer," a career in computer science usually involves extensive interaction with software development teams, as well as close collaboration with clients and colleagues from every conceivable discipline. The demand for graduates with an undergraduate degree in Computer Science remains high, with urgent needs for software engineers to keep pace with both hardware advances and the needs of business and consumers.

In addition to various opportunities to participate in software development teams within the undergraduate curriculum in Computer Science, students may apply for internships and cooperative education programs with industry to accumulate some real-world experience.

\section*{Degree Programs}

Bachelor of Arts, Computer Science Bachelor of Science, Computer Science

\section*{Program Overview and General Department Information}

\section*{Admission}

To be admitted to the Bachelor of Science or Bachelor of Arts program, students must:

■ complete all Academic Development courses required by the University.
- complete any courses required to address high school deficiencies.

■ complete MATH 120, College Algebra (or high
school equivalent) with a grade of C or better.
■ maintain a cumulative grade point average of at least 2.0 (on a 4.0 scale).

\section*{Retention}
\(\square\) maintain a cumulative grade point average of 2.0.
\(\square\) maintain a term grade point average above 1.0 in any term.

■ maintain a cumulative grade point average of 2.0 in all mathematics and science courses.

■ maintain a cumulative grade point average of at least a 2.0 in courses taught in the School oAf Engineering.
\(\square\) maintain a cumulative grade point average of at least 2.0 in major courses numbered above 299.
\(\square\) receive no more than two failure grades, incomplete, and/or withdrawals in any combination for a single course required in the major.
Students failing to meet the above standards may be conditionally retained. Failure to meet the conditions established by the department will result in termination from the major and ineligibility to enroll in upper division School of Engineering courses without written departmental permission. After one year, students are eligible to reapply for admission to the major. Students dropped from the major may direct a written appeal to the department's academic standards committee.

\section*{Transfer}

Transfer students should contact Engineering Student Services for a review of credentials and placement at least 30 days before the beginning of the term for which entry is desired. Credit will be reviewed using the following guidelines:
\(\square\) A minimum grade of C is required in all chemistry, computer science, mathematics, physics, and engineering science courses applied to major or minor requirements.

■ 300- or 400-level engineering course requirements will not be considered for transfer unless completed within 10 years in
an ABET-accredited program.

\section*{General Education Requirements for the Major}

University general education requirements are outlined in the General Education section of this catalog and included in the sample curriculum outline. While fulfilling University general education requirements, all computer science majors are required to complete the following:

■ ENG 101, ENG 102, ACS 103, RA 101 and MATH 150 (FQR)
- For the B.S. program, eight lecture courses in life, physical or social science including two labs

■ For the B.A. program, eight courses in fine \& performing arts and humanities including two semesters of the same foreign language
Degree RequirementsB.A.
\begin{tabular}{llll} 
CS 111 & CS 140 & CS 150 & CS 234 \\
CS 240 & CS 312 & CS 314 & CS 321 \\
CS 325 & CS 330 & CS 340 & CS 425 \\
CS 499 & MATH 125 & MATH 150 & MATH 224
\end{tabular}

STAT 244
Three Computing Electives from:
\begin{tabular}{llll} 
CS 382 & CS 423 & CS 434 & CS 438 \\
CS 447 & CS 454 & CS 456 & CS 482 \\
CS 490 & CS 495 & MATH465 &
\end{tabular}

One two-semester foreign language sequence (101-102) One Minor (or Second Major)
Degree Requirements B.S.
\begin{tabular}{llll} 
CS 111 & CS 140 & CS 150 & CS 234 \\
CS 240 & CS 312 & CS 314 & CS 321 \\
CS 325 & CS 330 & CS 340 & CS 425 \\
CS 499 & ECE 282 & MATH 150 & MATH 152 \\
MATH224 & STAT 380 & &
\end{tabular}

One Math Elective (MATH 250, 321, or 423)
One Laboratory Science Sequence (PHYS 151/151L-152/152L
or CHEM 121A/125A-121B/125B or CHEM
131/135-121B/125B).
One Additional Science Lab Elective (BIOL 150, CHEM 121A/125A, CHEM 131/135, PHYS 151/151L, or PHYS 201/201L).
Five Computing Electives from: CS 382, CS 423, CS 434, CS 438, CS 447, CS 454, CS 456, CS 482, CS 490, CS 495, ECE 381, ECE 482, ECE 483, or MATH 465).
Sample Curriculum for the Bachelor of Science in Computer Science
Fall Semester
Year 1
CS 111 - Concepts of Computer Science (BICS) ..... 3
CS 140 - Introduction to Computing I ..... 4
ENG 101 - English Composition ..... 3
MATH 150 - Calculus I (FQR) ..... 5
ACS 103 - Interpersonal Communication Skills (EUSC) ..... 3
Total ..... 18
Year 2
CS 234 - Database and Web System Development ..... 3
CS 240 - Introduction to Computing III ..... 3
Laboratory Science Sequence I (BPS, EL) ..... 5
Fine \& Performing Arts Breadth (BFPA). ..... 3
Humanities Breadth (BHUM). ..... 3
Total ..... 17
Year 3
CS 321 - Human-Computer Interaction Design ..... 3
CS 340 - Algorithms and Data Structures ..... 3
MATH Elective. ..... 3
Lab Science Elective ..... 5
Total ..... 14
Year 4
CS 330 - Programming Languages. ..... 3
CS 425 - Senior Project: Software Design. ..... 3
CS Elective II. ..... 3
CS Elective III ..... 3
Social Science Breadth (BSS)/Global Cultures (EGC). ..... 3
Total ..... 15
Spring Semester
Year 1
CS 150 - Introduction to Computing II ..... 3
ENG 102 - English Composition II. ..... 3
RA 101 - Reasoning \& Argumentation ..... 3
MATH 152 - Calculus II (BPS). ..... 5
MATH 224 - Discrete Mathematics (BPS). ..... 3
Total ..... 17
Year 2
CS 312 - Intro to Computer Organization \& Architecture ..... 3
ECE 282 - Digital Systems Design ..... 4
Laboratory Science Sequence II (BPS, EL). ..... 5
STAT 380 - Statistics for Applications (BICS) ..... 3
Total ..... 15
Year 3
CS 325 - Software Engineering ..... 3
CS 314 - Operating Systems ..... 3
CS Elective I ..... 3
Life Science Breadth (BLS) ..... 3
Interdisciplinary Studies ..... 3
Total ..... 15
Year 4
CS 499 - Senior Project: Software Implementation ..... 3
CS Elective IV ..... 3
CS Elective V ..... 3
Health Experience (EH). ..... 3
Total ..... 12

\section*{Sample Curriculum for the Bachelor of Arts in Computer Science}
Fall Semester
Year 1
CS 111 - Concepts of Computer Science (BICS) ..... 3
CS 140 - Introduction to Computing I ..... 4
ENG 101 - English Composition ..... 3
MATH 125 - Pre-calculus with Trigonometry (BPS) ..... 3
ACS 103 - Interpersonal Communication Skills (EUSC) ..... 3
Total ..... 16
Year 2
CS 240 - Introduction to Computing III ..... 3
MATH 224 - Discrete Mathematics (BPS) ..... 3
Fine \& Performing Arts Breadth (BFPA) ..... 3
Humanities (BHUM)/United States Cultures (EUSC) ..... 3
Foreign Language 101 ..... 4
Total ..... 16
Year 3
CS 312 - Intro to Comp Organization \& Architecture ..... 3
CS 321 - Human-Computer Interaction Design ..... 3
Life Science Breadth (BLS)/Lab Experience (EL) ..... 3
Fine \& Performing Arts or Humanities .....  3
Unrestricted/Minor Elective ..... 3
Total ..... 15
Spring Semester
Year 1
CS 150 - Introduction to Computing II ..... 3
ENG 102 - English Composition II. ..... 3
RA 101 - Reasoning and Argumentation .....  3
MATH 150 - Calculus I (QR) ..... 5
Social Science Breadth (BSS) ..... 3
Total ..... 17
Year 2
CS 234 - Database and Web System Development ..... 3
CS 340 - Algorithms and Data Structures ..... 3
Health Experience (EH). .....  \(0 / 2\)
STAT 244 - Statistics . ..... 3
Foreign Language 102 (EGC) ..... 4
Total ..... 13/15
Year 3
CS 325-Software Engineering ..... 3
CS 314 - Operating Systems ..... 3
Interdisciplinary Studies Course ..... 3
Fine \& Performing Arts or Humanities ..... 3
Fine \& Performing Arts or Humanities ..... 3
Total ..... 15

\section*{Sample Curriculum for the Bachelor of Arts in Computer Science cont.}


Spring Semester
Year 4
CS 499 - Senior Project: Software Implementation ..... 3
CS Elective II. ..... 3
CS Elective III ..... 3
Unrestricted/Minor Elective ..... 3
Unrestricted/Minor Elective . ..... 3
Total ..... 15

\section*{Graduation Requirements}
- Complete all general education and specific program requirements.
■ Complete at least 12 hours of computer science credits at SIUE in courses numbered above 299 with a cumulative GPA of 2.0 or above.

■ Have a GPA of 2.0 or above in all computer science courses numbered above 299

■ Complete at least 6 hours of credit in major courses numbered above 299 at SIUE in the two years preceding graduation.
- For B.A. students, complete an undergraduate minor or second major in another discipline.
- File an Application for Graduation by the first day of the term in which you plan to graduate.

\section*{Construction}

Engineering Building, Room 3052
siue.edu/engineering/construction

\section*{Associate Professors}

Gordon, Chris, Ph.D., 2006, Carnegie Mellon University

\section*{Assistant Professors}

Azambuja, Marcelo, Ph.D., 2009, University of Texas at Austin
Grinter, Mark. M.S., 2008, Southern Illinois University Edwardsville Su, Xing, Ph.D., 2013, Purdue University
Werner, Anne, Ph.D., 2004, University of Illinois at Urbana-Champaign

\section*{Program Description}

The construction management program blends business and engineering coursework to provide graduates with the knowledge and skills necessary to coordinate the multifaceted aspects of the construction industry. Coursework presents basic scientific principles, augmented by business and engineering practices and procedures.

\section*{Career Opportunities}

The construction industry is one of the largest components of the U.S. economy. The construction workforce includes skilled and unskilled labor, engineers, accountants, financial analysts, business managers, and construction management professionals. The scope of construction ranges from modest projects that cost a few hundred dollars to projects whose total costs are in the billions of dollars. The industry's continuing changes in management approaches and technology produce a need for construction professionals trained in the managerial and scientific techniques of construction.

\section*{Degree Programs}

Bachelor of Science, Construction Management Specialization available in Land Surveying

\section*{Program Overview and General Department Information}

Admission To be admitted to the Bachelor of Science program, students must:
■ Complete all Academic Development courses required by the University.

■ Complete any courses required to address high school deficiencies.

■ Complete MATH 120, College Algebra (or high school equivalents) with a grade of C or better.
- Attain a cumulative grade point average of at least 2.0 (on a 4.0 scale).

\section*{Retention}

Student must meet the following standards. Students who fail to do so will be placed on probation in the major.

■ Maintain a cumulative grade point average of 2.0.
- Maintain a term grade point average above 1.0 in any term.
- Maintain a cumulative grade point average of at least 2.0 in all mathematics and science courses.
- Maintain a cumulative grade point average of at least a 2.0 in courses taught in the School of Engineering.
- Maintain a cumulative grade point average of at least 2.25 in courses taught in the School of Business.
- Maintain a cumulative grade point average of at least 2.0 in major courses numbered above 299.
- Receive no more than two failure grades, incomplete, and/or withdrawals in any combination for a single course required in the major.

Students placed on probation should seek immediate advisement and will be informed of the conditions required for removal from probation. If the conditions are not met, students are dropped from the major and may not enroll in construction courses without written departmental permission. After one year, students are eligible to re-apply for admission to the major. Students dropped from the major may direct a written appeal to the department's academic standards committee.

\section*{General Education Requirements for the Major}

University general education requirements are outlined in the General Education section of this catalog and included in the sample curriculum outline. While fulfilling University general education requirements all construction management majors are required to complete the following:
\begin{tabular}{ll} 
Breadth-Physical Science(BPS) Courses ( 19 credits) \\
CHEM 120a & CHEM 124a \\
MATH 150 & MATH 152 \\
PHYS 151 & PHYS 151L
\end{tabular}

Breadth-Physical Science(BPS) Courses ( 19 credits) CHEM 120a CHEM 124a MATH 150 MATH 152 PHYS 151 PHYS 151L

Construction Courses (51 credits)
\begin{tabular}{llll} 
CNST 120 & CNST 210 & CNST 241 & CNST 264 \\
CNST 301/L & CNST 321 & CNST 332 & CNST 341 \\
CNST 351 & CNST 353 & CNST 403 & CNST411 \\
CNST 451 & CNST 451L & CNST452 & CNST470
\end{tabular}

Technical Electives (9 units)
Business Courses (18 units) *
ACCT 200 ACCT 210 ECON 331 IS 401
FIN 320 MGMT 330
Breadth - Fine \& Performing Arts (3 credits)
Breadth - Humanities (3 credits)
Breadth - Information \& Communication in Society (3 credits) STAT 244
Breadth - Social Science Courses ( 6 credits) *
ECON 111 ECON 112
Foundations ( 15 credits)
ENG 101 ENG 102 RA 101 MATH 150 (FQR)
ACS 101
Total: 128 units
*These courses fulfill the requirements for a minor in business administration. To view a sample program, visit the Department of Construction website at siue.edu/engineering/construction.

\section*{Areas of Specialization}

Students seeking a bachelor of science in Construction Management may specialize in land surveying as described below. The specialization is also open to visiting students possessing a previous bachelor's degree. Students should discuss their career objectives with their faculty advisor in the Department of Construction.

\section*{Land Surveying}

The Land Surveying Specialization is designed to prepare graduates who would meet the statutory requirements for eligibility to sit for the Illinois Professional Land Surveyor in Training examination, and later to become Professional Land Surveyors. The program of study consists of 24 hours of land surveying courses, including a core of 18 hours, and 6 hours of electives.

Completing the Bachelor of Science in Construction Management with a Land Surveying Specialization requires 139 credit hours.
Land Surveying core courses: CNST 264, 310, 364, 482, 484
Surveying Electives (select two): CNST 415, GEOG 418, 422, 423

\section*{Sample Curriculum for the Bachelor of Science in Construction Management}
\begin{tabular}{|c|c|}
\hline \multicolumn{2}{|l|}{Fall Semester} \\
\hline \multicolumn{2}{|l|}{Year 1} \\
\hline CNST 120-Introduction to Construction & \\
\hline ENG 101 - English Composition I & \\
\hline MATH 150 - Calculus I (FQR) & \\
\hline ECON 111 - Macroeconomics (BSS) & 3 \\
\hline CHEM 120a-Gen, Org, and Biological Chemistry (BPS) & \\
\hline CHEM 124a-Gen, Org, and Biological Chem Lab (EL) & \\
\hline Total & 17 \\
\hline \multicolumn{2}{|l|}{Year 2} \\
\hline CNST 210 - Construction Materials and Methods . & \\
\hline STAT 244 - Statistics (BICS). & \\
\hline ACCT 200 - Fundamentals of Financial Accounting & \\
\hline PHYS 151 - University Physics I (BPS) & \\
\hline PHYS 151L - University Physics Lab I (EL) & \\
\hline & \\
\hline \multicolumn{2}{|l|}{Year 3} \\
\hline CNST 351 - Structural Systems & \\
\hline CNST 332 - Mechanical Systems / HVAC & \\
\hline FIN 320 - Financial Management and Decision Making. & \\
\hline ECON 331 - Labor Economics (BSS) & \\
\hline Life Science Breadth (BLS) & \\
\hline Total & 16 \\
\hline \multicolumn{2}{|l|}{Year 4} \\
\hline CNST 403 - Planning and Scheduling. & \\
\hline CNST 451 - Estimating and Bidding & \\
\hline CNST 451L - Estimating and Bidding Lab & \\
\hline Technical Elective I . & 3 \\
\hline Technical Elective II. & 3 \\
\hline Health Experience (EH). & .0/2 \\
\hline Total & 14/16 \\
\hline
\end{tabular}

Spring Semester

\section*{Year 1}
RA 101 - Reasoning \& Argumentation ..... 3
ENG 102 -English Composition II. ..... 3
MATH 152 - Calculus II (BPS). ..... 5
ECON 112 -Microeconomics (BSS). ..... 3
ACS 103 - Interpersonal Communication Skills (EUSC) ..... 3
Total ..... 17
Year 2
CNST 241 - Statics and Mechanics of Solids ..... 4
CNST 264 - Construction Surveying ..... 4
ACCT 210 - Managerial Accounting ..... 3
Fine \& Performing Arts Breadth (BFPA) .....  3
Humanities Breadth (BHUM). ..... 3
Total ..... 17
Year 3
CNST 301/L - Soils ..... 4
CNST 321 -Electrical Systems ..... 3
CNST 341 - Plans and Specifications ..... 3
CNST 353 - Computer Applications in Construction ..... 3
MGMT 330 - Understanding the Bus. Environment. ..... 3
Total ..... 16
Year 4
CNST 411 - Construction Contracts ..... 3
CNST 452 - Construction Management ..... 4
CNST 470 - Internship ..... 3
IS 401 - Business and Society (EGC) ..... 3
Technical Elective III ..... 3
Total ..... 16

\section*{Sample Curriculum for the Bachelor of Science in Construction Management with Specialization in Land Surveying}Fall SemesterYear 1
CNST 120 - Introduction to Construction ..... 2
ENG 101 - English Composition I ..... 3
MATH 150 -Calculus I (FQR) ..... 5
ECON 111 - Macroeconomics (BSS) ..... 3
CHEM 120a - Gen, Org, and Biological Chemistry (BPS) ..... 3
CHEM 124a - Gen, Org, and Biol Chemistry Lab (EL). ..... 1
Total ..... 17
Year 2
CNST 210 - Construction Materials and Methods ..... 3
ACCT 200 - Fundamentals of Financial Accounting ..... 3
PHYS 151 - University Physics I (BPS) ..... 4
PHYS 151L - University Physics Lab (EL) ..... 1
STAT 244 - Statistics (BICS) ..... 4
Health Experience (EH) ..... 0/2
Total ..... 15/17
Year 3
CNST 310 - Legal Aspects of Surveying ..... 3
CNST 332 -Mechanical Systems / HVAC ..... 3
CNST 351 - Structural Systems ..... 4
FIN 320 - Financial Management and Decision Making. ..... 3
Life Science Breadth (BLS) ..... 3
Total ..... 16
Spring Semester
Year 1
RA 101 - Reasoning \& Argumentation ..... 3
ENG 102 - English Composition II. ..... 3
MATH 152 - Calculus II (BPS). ..... 5
ECON 112 - Microeconomics(BSS) ..... 3
ACS 103 - Interpersonal Communication Skills (EUSC) ..... 3
Total ..... 17
Year 2
CNST 241 - Statics and Mechanics of Solids ..... 4
CNST 264 - Construction Surveying. ..... 4
ACCT 210 - Managerial Accounting ..... 3
Humanities Breadth (BHUM) ..... 3
Fine \& Performing Arts Breadth (BFPA). ..... 3
Total ..... 17
Year 3
CNST 301 - Soils ..... 4
CNST 321 - Electrical Systems. ..... 3
CNST 341 - Plans and Specifications ..... 3
CNST 353 - Computer Applications in Construction ..... 3
CNST 364 - Boundary Surveying ..... 3
Total ..... 16

\section*{Sample Curriculum for the Bachelor of Science in Construction Management with Specialization in Land Surveying cont.}Summer Session
CNST 470 - Internship .....  3
MGMT 330 - Understanding the Bus. Environment ..... 3
Total ..... 6
Fall Semester
Year 4
CNST 403 - Planning and Scheduling ..... 4

\section*{Spring Semester}

\section*{Year 4}

CNST 411 - Construction Contracts . . . . . . . . . . . . . . . . . . . . . . . 3
CNST 451 - Estimating and Bidding ..... 3
CNST 451L - Estimating and Bidding Lab ..... 1
CNST 482 - Advanced Survey Systems ..... 4
ECON 331 - Labor Economics ..... 3
Surveying Elective (choose from list). ..... 3
Total ..... 18
Surveying Electives: CNST 415 - Land Development .....  3
GEOG 418 -GIS ..... 3
GEOG 422 - Remote Sensing ..... 3
GEOG 423 - Computer Mapping. ..... 3

\section*{Minor Requirements}
Twenty-one semester hours are required for a minor in construction management. The courses are to be selected from the construction curriculum with approval from the chair of Construction Department. A cumulative grade point average of 2.0 or higher is required for construction management courses.

CNST 452-Construction Management . . . . . . . . . . . . . . . . . . . 4
CNST 484 - Survey Appls \& Comps . . . . . . . . . . . . . . . . . . . . . . . 4
Surveying Elective (choose from list) . . . . . . . . . . . . . . . . . . . . . . . 3
IS 401 Business and Society (EGC) . . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 17

\section*{Graduation Requirements}
Construction students must meet all University requirements for graduation and the following construction management program requirements:
- Earn a cumulative grade point average above 2.0 in all construction courses, and
- Earn a cumulative grade point average above 2.25 in all business courses to qualify for a minor in business administration.
- Complete the construction management senior assignment.

\title{
Electrical \& Computer Engineering
}

Engineering Building, Room 3054
siue.edu/engineering/ece

\section*{Professors}

Alkin, Oktay, Ph.D., 1986, University of Alabama
Chen, Jen-Shiun, Ph.D., 1983, Ohio State University
Engel, George L, D.Sc., 1990, Washington University
Smith, Scott R., Ph.D., 1991, University of Illinois
Umbaugh, Scott E., Ph.D., 1989,
University of Missouri Rolla

\section*{Associate Professors}

Lozowski, Andy G., Ph.D., 1999, University of Louisville Noble, Brad, D.Sc., 2000, Washington University LeAnder, Robert W, Ph.D., 2002, University of Illinois at Chicago

Shang, Ying, D.J., D.Eng., 2006, University of Notre Dame

\section*{Assistant Professors}

Wang, Xin, Ph.D., 2011, Marquette University
York, Timothy, 2014, Washington University

\section*{Lab Manager/Lecturer}

Muren, Steve, MS, 2000,
Southern Illinois University Edwardsville

\section*{Adjunct Lecturers}

Basler, Mike, MA, 1989, University of Missouri-Columbia
Kim, Kiyong, Sc.D., 1995,
Washington University
Klingensmith, Jon, Ph.D., 2003, Case Western Reserve University

\section*{Program Description}

Electrical engineering and computer engineering disciplines are concerned with the development and application of electrical and computer technology to enhance and enrich all life. Electrical and computer engineers, as part of
this mission, are engaged in a wide variety of activities that include among other things:

■ space exploration and remote sensing,
- process control and automation,
- automatic control systems for use in robotics, missiles, aircraft, and manufacturing plants,
■ electric power generation and distribution, environmentally responsible generation and use of energy,

■ audio- video- and data-communication systems, satellite communications,

■ digital processing of signals and images using the computer,
- design and manufacturing of faster and more capable microprocessors for the computers of tomorrow,
■ applications of technology in the healthcare field through computerized ultrasound, radiology, tomography and imaging systems, computer aided diagnosis and treatment, and tele-surgery.
The applications listed above require a solid foundation in mathematics and physics, thus requiring electrical and computer engineering students to go through a substantial set of courses in these areas. In addition, today's engineers also must be aware of a wide variety of global, social, ethical, economic and environmental issues that are relevant to the systems they design and build. Our bachelor's degree programs include courses and projects designed to build this awareness. The electrical and computer engineering program mission is consistent with the mission of the University and the School of Engineering. Program educational objectives and outcomes are available on the department Web site: siue.edu/engineering.

The department of Electrical and Computer Engineering has several well-equipped modern laboratories for computation, simulation and measurement. Individual laboratories to support elective courses in the areas of computers, control, digital signal processing, image processing, and power also are available to students.

\section*{Career Opportunities}

Electrical and computer engineers find employment in a wide variety of manufacturing companies such as aerospace and aircraft, electric manufacturers, computer circuit (a.k.a. "chip") manufacturers, and medical equipment manufacturers. They are employed
in the fields of research, design, manufacturing and sales. Many public utilities, which include power companies and telephone companies, employ both computer engineers and electrical engineers. Other potential employers include oil companies, railroads, food processing plants, chemical and biological laboratories, chemical plants, various branches of federal government, and many consulting engineering companies.

\section*{Degree Programs}

Bachelor of Science, Electrical Engineering Bachelor of Science, Computer Engineering

\section*{Program Overview and General Department Information}

\section*{Admission}

To be admitted to the Bachelor of Science program, students must:

■ complete all Academic Development courses required by the University.
■ complete any courses required to address high school deficiencies.
■ complete MATH 120, College Algebra (or high school equivalents) with a grade of C or better.
■ attain a cumulative grade point average of at least 2.0 (on a 4.0 scale).

\section*{Retention}

■ Maintain a cumulative grade point average of 2.0.

■ Maintain a term grade point average above 1.0 in any term.
- Maintain a cumulative grade point average of 2.0 in all mathematics and science courses.
\(\square\) Maintain a cumulative grade point average of at least a 2.0 in courses taught in the School of Engineering.
■ Maintain a cumulative grade point average of at least 2.0 in major courses numbered above 299.
- Receive no more than two failure grades, incomplete, and/or withdrawals in any combination for a single course required in the major.
Students placed on probation should seek immediate advisement and will be given the conditions required for removal from probation. If the conditions are not met, students are dropped from the major and may not enroll in upper-division School of Engineering courses without written departmental permission. After
one year, students are eligible to re-apply for admission to the major. Students dropped from the major may direct a written appeal to the department's academic standards committee.

\section*{Transfer}

Transfer students should contact the associate dean of engineering for a review of credentials and placement at least 30 days before the beginning of the term for which entry is desired. Credit will be reviewed using the following guidelines:
- A minimum grade of C is required in all chemistry, computer science, mathematics, physics, and engineering science courses applied to major or minor requirements.

■ 300- or 400-level engineering course requirements will not be considered for transfer unless completed within 10 years within an ABET-accredited engineering program.

\section*{General Education/Degree Requirements}

University general education requirements are outlined in the General Education section of this catalog and included in the sample curriculum outline. The Bachelor of Science in Electrical Engineering requires completion of 128 hours. The Bachelor of Science in Computer Engineering requires completion of 129 hours. The requirements are as follows:

Foundations Courses (9 hours)
ENG 101 ENG 102 ACS 101 IE 106
MATH 150

Breadth-Physical Science Courses ( 37 or 35 hours \({ }_{1}\) )
CHEM 1312 CHEM 1352 MATH 150 MATH 152
MATH 250 MATH 305 MATH 3551 / MATH 2243
PHYS 151 PHYS 151L PHYS 152
PHYS 152L
\({ }_{18}\) Electrical Engineering (Math 355, 37 hours)
Computer Engineering (Math 224, 35 hours)
2 CHEM 121a and 125a may be substituted

\section*{Breadth}

Fine Art \& Performing Arts (3 hours) Information \& Communication in Society (3 hours) Life Science (3 hours)
Breadth-Humanities (3 hours)
PHIL 323
Breadth Social Science Courses (3 hours)
ECON 111
Interdisciplinary Course (3 hours)

\section*{Major Requirements}

Electrical Engineering
Engineering Courses (49 hours)
\begin{tabular}{lllr} 
ECE 210 & ECE 211 & ECE 282 & ECE 326 \\
ECE 340 & ECE 341 & ECE 351 & ECE 352 \\
ECE 365 & ECE 375 & ECE 404 & ECE 405 \\
IE 345 & IE 106 & CS 140 or CS 145
\end{tabular}

Non-ECE Technical Elective (3 hours) and ECE Electives (12 hours)

Computer Engineering
Engineering Courses ( 39 hours)
\begin{tabular}{llll} 
ECE 210 & ECE 211 & ECE 282 & ECE 326 \\
ECE 351 & ECE 352 & ECE 381 & ECE 404 \\
ECE 405 & ECE 483 & IE 345 & IE 106 \\
Computer & Science Courses & (19 hours) & \\
CS 140 & CS 150 & CS 240 & CS 312 \\
CS 314 & CS 340 & & \\
ECE/CS Electives (9 hours) & &
\end{tabular}

\section*{Sample Curriculum for the Bachelor of Science in Electrical Engineering}

\section*{Fall Semester}

Year 1
CHEM 131 - Engineering Chemistry (BPS). . . . . . . . . . . . . . . . . 4
CHEM 135 - Engineering Chemistry Lab (EL). . . . . . . . . . . . . . . . 1
ENG 101 -English Composition I . . . . . . . . . . . . . . . . . . . . . . . . . 3
IE 106 - Engineering Problem Solving . . . . . . . . . . . . . . . . . . . . . . . 3
MATH 150 -Calculus I (QR) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16
Year 2
ECE 210--Circuit Analysis I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
CS 145 - Introduction to Computing I . . . . . . . . . . . . . . . . . . . . . . 3
MATH 250 - Calculus III (BPS) . . . . . . . . . . . . . . . . . . . . . . . . . . 4
PHYS 152 - University Physics II (BPS) . . . . . . . . . . . . . . . . . . . 4
PHYS 152L - University Physics Lab II (EL) ................. 1
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15

Spring Semester

Year 1
ENG 102 -English Composition II. . . . . . . . . . . . . . . . . . . . . . . . . 3
MATH 152 -Calculus II (BPS). . . . . . . . . . . . . . . . . . . . . . . . . . . 5
PHYS 151 - University Physics I (BPS) . . . . . . . . . . . . . . . . . . . . 4
PHYS 151L - University Physics Labl (EL) . . . . . . . . . . . . . . . . 1
ACS 103 - Interpersonal Communication Skills (EUSC) . . . . . . . 3
Total . ............................................................... . . . 16

\section*{Year 2}

ECE 211 - Circuit Analysis II . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4
ECE 282 -Digital Systems Design . . . . . . . . . . . . . . . . . . . . . 4
Fine \& Performing Arts (BFPA) . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
MATH 305 - Differential Equations I . . . . . . . . . . . . . . . . . . . . . . 3
ECON 111 -Macroeconomics (BSS). . . . . . . . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 17
Sample Curriculum for the Bachelor of Science in Electrical Engineering cont.
Fall Semester
Year 3
ECE 326 -Electronic Circuits I. ..... 4
ECE 351 - Signals and Systems ..... 3
ECE 352 - Stochastic Processes ..... 3
MATH 355 - Engineering Mathematics ..... 5
Health Experience (EH) ..... 0/2
Total ..... 15-17
Year 4
ECE 341 - Electromechanical Energy Conv ..... 4
ECE 404 -ECE Design ..... 3
ECE Elective I ..... 3
ECE Elective II ..... 3
PHIL 323 -Engineering, Ethics \& Professionalism (BHUM) ..... 3
Total ..... 16Spring Semester
Year 3
ECE 340 - Engineering Electromagnetics ..... 3
ECE 365 - Control Systems ..... 3
ECE 375 - Introduction to Communications ..... 3
Non ECE Tech Elective ..... 3
Info \& Communication in Society (BICS) ..... 3
Life Science (BLS) ..... 3
Total ..... 18
Year 4
ECE 405-ECE Design Laboratory ..... 3
ECE Elective III ..... 3
ECE Elective IV ..... 3
IE 345 - Engineering Economic Analysis. ..... 3
Interdisciplinary Studies (IS) ..... 3
Total ..... 15
Sample Curriculum for the Bachelor of Science in Computer Engineering
Fall Semester
Year 1
CHEM 131 - Engineering Chemistry (BPS) ..... 4
CHEM 135 - Engineering Chemistry Lab (EL) ..... 1
ENG 101 -English Composition I ..... 3
IE 106 -Engineering Problem Solving ..... 3
MATH 150 - Calculus I (QR) ..... 5
Total ..... 16
Year 2
ECE 210 - Circuit Analysis I ..... 3
CS 150 - Introduction to Computing II ..... 3
MATH 250 - Calculus III (BPS) ..... 4
PHYS 152 - University Physics II (BPS) ..... 4
PHYS 152L - University Physics Lab II (EL) ..... 1
Total ..... 15
Year 3
ECE 326 - Electronic Circuits I ..... 4
ECE 351 - Signals and Systems ..... 3
ECE 352 - Stochastic Processes ..... 3
CS 312 - Intro to Comp. Org ..... 3
MATH 224 - Discrete Mathematics ..... 3
Total ..... 16
Year 4
ECE 404 - ECE Design ..... 3
ECE /CS Elective II ..... 3
CS 314 - Operating Systems ..... 3
Info \& Communication in Society (BICS) .....  3
PHIL 323 - Engineering, Ethics \& Professionalism (BHUM) ..... 3
Health Experience (EH) .....  \(0 / 2\)
Total ..... 15/17
Spring Semester
Year 1
CS 140 - Introduction to Computing I ..... 4
ENG 102 - English Composition II. ..... 3
MATH 152 - Calculus II (BPS) ..... 5
PHYS 151 - University Physics I (BPS) ..... 4
PHYS 151L - University Physics Lab I (EL) ..... 
Total ..... 17
Year 2
ECE 211 - Circuit Analysis II ..... 4
ECE 282 - Digital Systems Design ..... 4
CS 240 - Introduction to Computing III ..... 3
MATH 305 - Differential Equations I .....  3
ACS 103 - Interpersonal Communication Skills (EUSC) .....  3
Total ..... 17
Year 3
Life Science (BLS) ..... 3
ECE 381 - Microcontrollers ..... 3
ECE 483 - Adv. Digital Systems Eng ..... 3
ECE/CS Elective I ..... 3
ECON 111 - Macroeconomics (BSS) ..... 3
Fine \& Performing Arts (BFPA) ..... 3
Total ..... 18
Year 4
ECE 405-ECE Design Laboratory ..... 3
ECE/CS Elective III. ..... 3
CS 340 - Algorithms aEngineering Economic Analysis .....  3
IE 345 - Engineering Economic Analysis ..... 3
Interdisciplinary Studies (IS) (EGC). ..... 3
Total ..... 15

\section*{Minor Requirements for Electrical Engineering}

A minor in electrical engineering requires 24 semester hours. The courses required are ECE 210, 211, 282, 326, 340, 351, 365. A cumulative grade point average of 2.0 or higher is required for courses.

\section*{Minor Requirements for Computer Engineering}

A minor in computer engineering requires 23 semester hours. The courses required are ECE 210, 211, 282, 351, 381, CS 150, CS 240. A cumulative grade point average of 2.0 or higher is required for these courses.

\title{
Mechanical and Industrial Engineering
}

Engineering Building, Room 2036
siue.edu/engineering/me
siue.edu/ENGINEER/IE

\section*{Distinguished Research Professors}

Gu, Keqin, Ph.D., 1988, Georgia Institute of Technology
Luo, Albert C. J., Ph.D., 1995, University of Manitoba
Molki, Majid (Chair), Ph.D., 1982, University of Minnesota

\section*{Professors}

Eneyo, Emmanuel S., Ph.D., 1991, Purdue University
Karacal, S. Cem (Associate Dean), Ph.D., 1991, Oklahoma State University
Lee, H. Felix (Program Director), Ph.D., 1989, University of Michigan
Yan, Terry, Ph.D., 1993, University of California-Davis

\section*{Associate Professors}

Celik, Serdar , Ph.D., 2007, Southern Illinois University Carbondale
Cho, Sohyung, Ph.D., 2000, Pennsylvania State University
Darabi, Jeff, Ph.D., 2000, University of Maryland
Hubbard, Kevin M., Ph.D., 1993, University of Missouri - Rolla
Krauss, Ryan, Ph.D., 2006, Georgia Institute of Technology

\section*{Graduation Requirements for Electrical Engineering and Computer Engineering Programs}
\(\square\) satisfactory completion of all University requirements for graduation
■ a cumulative grade point average of 2.0 or higher for courses taught in the School of Engineering
\(\square\) a grade point average of 2.0 or higher in electrical engineering and computer science courses numbered above 299
- completion of at least 30 hours of the required electrical engineering and computer science courses at SIUE and
- completion of senior assignment contained in ECE 404 and 405.

\section*{Assistant Professors}

Chen, Xin, Ph.D., 2009, Purdue University
Gorlewicz, Jenna, Ph.D., 2013, Vanderbilt University
Ko, Hoo Sang, Ph.D., 2011, Purdue University
Kweon, Soondo, Ph.D., 2009, University of Illinois at Urbana-Champaign
Onal, Sinan, University of South Florida
Wang, Fengxia, Ph.D., 2008, Purdue University

\section*{Degree Programs}

Bachelor of Science, Industrial Engineering Specialization available in Manufacturing Engineering Bachelor of Science, Mechanical Engineering

\section*{Industrial Engineering}

Industrial engineers (IEs) design, produce, and deliver quality products and services to customers at affordable prices at the right time. They design, optimize and install integrated systems that contain people, materials, information, equipment and energy. These integrated systems can be manufacturing plants, hospitals, distribution centers, and financial institutions. To design and implement these integrated systems, the IEs are equipped with knowledge and skills in engineering and management.
Industrial engineers are uniquely poised to work in a variety of industries. Industrial engineering education offers the best of both worlds: engineering and business. The most distinctive aspect of IE is the flexibility it offers; whether it is designing a new factory, shortening a
rollercoaster line, streamlining an operating room in hospitals, distributing products worldwide, or manufacturing superior automobiles, the IEs will be in charge and can do the job most efficiently.

In an increasingly competitive world, the need for industrial engineers is growing. IEs are the professionals trained specifically to improve productivity and quality using an integrated systems approach. They work to eliminate waste of valuable resources such as time, money, materials, energy, and natural resources. This is why many IEs are promoted into management positions.
An automobile is assembled out of 8,000 parts. It is the IEs responsibility to make sure that the right quantities and qualities of the correct parts are brought into hundreds of assembly stations at the right time to run an efficient assembly line. Industrial engineering is not just about manufacturing, it also encompasses service industries. Many IEs are employed in entertainment industries, shipping and logistics businesses, financial institutions, and healthcare organizations. IEs make systems more efficient by:

■ Designing and/or improving processes
■ Developing tools/methods/processes for better product and quality service
- Reducing costs and using resources more environmentally consciously
- Providing better customer service and product quality
- Making the workplace safer and the work itself more rewarding

\section*{Career Opportunities}

IEs are specifically prepared to function as problem solvers, innovators, coordinators, and agents of change. IEs practice in all levels of manufacturing industries, service industries, and government agencies. In service industries and government agencies, the same IE skills used to design manufacturing systems are found to be useful in designing better healthcare systems, providing fast and more accurate mail/ parcel delivery, improving airline operations, and controlling supply and product distribution systems. The complexity of modern industrial and service organizations and the emphasis on increased efficiency and productivity have led to a growing need for IE skills, and therefore, an increased demand for IE graduates. This increased demand recognizes the versatility of IE being responsive to the challenges of a rapidly changing society. The demand for IEs far exceeds the number of students graduation from
industrial engineering programs.

\section*{Enrollment in Upper-Division Industrial Engineering Courses}

The requirements for enrollment in upperdivision industrial and manufacturing engineering courses are:

■ satisfactory completion of all University and School of Engineering admission requirements;
- an approved application for enrollment in upper-division Engineering courses;
■ satisfactory completion of the lower-division (core) courses CE 204, 240, 242; CHEM 131, 135 (or CHEM 121a, 125a); CS 145 (recommended) or CS 140; ECE 210; ENG 101, 102; MATH 150, 152, 250, 305 or 321 (for IEs only); ME 262; PHYS 151, 151L, 152, 152L; and ACS 101; with a grade point average of at least 2.0 for the above courses is required for non-transfer students, transfer students from articulated programs, and Illinois resident transfer students; a grade point average of at least 2.25 for the above courses is required for other transfer students; and
■ a grade point average of 2.0 or better in CS 145 or 140 , CE 204, 240, 242, ECE 210, and ME 262 (both original and repeat grades are computed in the grade point average)

\section*{Academic Status/Retention}

Students must meet the following standards. Students who fail to do so will be placed on probation in the major.
■ Maintain a cumulative grade point average of 2.0.
■ Maintain a term grade point average above 1.0 in any term.
■ Maintain a cumulative grade point average of at least 2.0 in all mathematics and science courses.

■ Maintain a cumulative grade point average of at least a 2.0 in courses taught in the School of Engineering.
- Maintain a cumulative grade point average of at least 2.0 in major courses numbered above 299.
- Receive no more than two failure grades, incomplete, and/or withdrawals in any combination for a single course required in the major.
Students placed on probation should seek immediate advisement and will be given the conditions required for removal from probation.

If the conditions are not met, students are dropped from the major and may not enroll in upper-division School of Engineering courses without written departmental permission. After one year, students are eligible to reapply for admission to the major. Students dropped from the major may direct a written appeal to the department's academic standards committee.

\section*{Degree Requirements, Bachelor of Science Industrial Engineering \\ Breadth-Physical Science Courses \\ \begin{tabular}{llll} 
CHEM 131 & CHEM 135+ & MATH 152 & MATH 250 \\
MATH 305 & MATH 321 & PHYS 151 & PHYS 151L \\
PHYS 152 & PHYS 152L & & \\
+ CHEM 125a may be substituted &
\end{tabular}}
\begin{tabular}{|c|c|c|c|}
\hline \multicolumn{4}{|l|}{Engineering \& Computer Science Courses} \\
\hline CE 204 & CE 240 & CE 242 & CS 145 \\
\hline ECE 210 & IE 106 & IE 335 & IE 345 \\
\hline IE 370 & IE 375 & IE415 & IE451 \\
\hline IE465 & IE468 & IE470 & IE476 \\
\hline IE483 & IE 484 & IE 490 & \\
\hline IE Elective & hours) & ME 262 & \\
\hline
\end{tabular}

\section*{Breadth}

Fine \& Performing Arts (3 hours)
Life Science (3 hours)
Breadth Info \& Communication in Society Course STAT 380

\section*{Breadth-Humanities Course (3 hours)}

PHIL 323
Breadth-Social Science Courses
ECON 111

\section*{Foundations}

ENG 101 ENG 102 RA 101 ACS 101
MATH 150 (FQR)
The following Experiences are also required: New Freshman Seminar(NFS), Health (EH), Global Cultures (EGC) and United States Cultures (EUSC)
Interdisciplinary Studies Course
Suggested: IS 352 or IS 375
More detailed program information can be found on the program website: siiue.edu/ENGINEER/IE.

\section*{Sample Curriculum for the Bachelor of Science in Industrial Engineering}

Fall Semester
Year 1
IE 106 - Engineering Problem Solving. . . . . . . . . . . . . . . . . . . . . 3
CHEM 131 - Engineering Chemistry (BPS). . . . . . . . . . . . . . . . . 4
CHEM 135 -Engineering Chemistry Lab (EL) . . . . . . . . . . . . . . . 1
ENG 101 -English Composition I . . . . . . . . . . . . . . . . . . . . . . . . . . 3
MATH 150 -Calculus I (QR) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16
Year 2
CE 204 - Engineering Graphics \& CAD . . . . . . . . . . . . . . . . . . . . . 3
CE 204-Engineering Graphics \& CAD . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
MATH 250 - Calculus III (BPS) . . . . . . . . . . . . . . . . . . . . . . . . . . 4
PHYS 152 - University Physics II (BPS) . . . . . . . . . . . . . . . . . . . 4
PHYS 152L - University Physics Lab II (EL) . . . . . . . . . . . . . . . . 1
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 15
Year 3
IE 335 - Intro to Information Processing Systems ..... 3
IE 345 - Engineering Economics Analysis ..... 3
STAT 380 - Statistics for Application (BICS). ..... 3
IE 370 - Manufacturing Processes ..... 3
IE 375 - Three Dimensional Modeling in Product Design ..... 3
Fine \& Performing Arts (BFPA) ..... 3
Total ..... 18
Year 4
IE 468 - Operations Research - Simulation ..... 3
IE 476 - Plantwide Process Control ..... 3
IE 483 - Production Planning \& Control .....  3
IE 484 -Facilities Planning ..... 3
IE Elective I ..... 3
Total ..... 15

Spring Semester
Year 1
ENG 102 - English Composition II. . . . . . . . . . . . . . . . . . . . . . . . . 3
MATH 152 -Calculus II (BPS). . . . . . . . . . . . . . . . . . . . . . . . . . . . 5
PHYS 151 - University Physics I (BPS) . . . . . . . . . . . . . . . . . . . . 4
PHYS 151L - University Physics Lab I (EL) . . . . . . . . . . . . . . . . . . 1
ACS 103 - Interpersonal Comm Skills (EUSC) . . . . . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 16
Year 2
CE 242 - Mechanics of Solids. . . . . . . . . . . . . . . . . . . . . . . . . . . 3
CS 145 - Introduction to Computing for Engineers . . . . . . . . . . . . 3
ECE 210 - Introduction to Electrical Circuits . . . . . . . . . . . . . . . . 3
MATH 305 - Differential Equations I or
MATH 321 Linear Algebra (BPS) . . . . . . . . . . . . . . . . . . . . . . 3
ME 262 -Dynamics . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
ECON 111 - Principles of Macroeconomics (BSS) . . . . . . . . . . . 3
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 18
Year 3
IE 415-Operations Res - Deterministic Models . . . . . . . . . . . . . 3
IE 451 - Methods Design \& Work Measurements . . . . . . . . . . . . . 3
IE 465 - Design \& Control of Quality Systems . . . . . . . . . . . . . . . . 3
IE 470 - Manufacturing Systems . . . . . . . . . . . . . . . . . . . . . . . . . 3
Life Science (BLS). . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Health Experience (EH) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 0-2
Total . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \(15 / 17\)
Year 4
IE 490 - Integrated Engineering Design . . . . . . . . . . . . . . . . . . . . 3
IE Elective II . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
IE Elective III . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
PHIL 323 - Engineering, Ethics, \& Professionalism (BHUM) . . . . 3
Interdisciplinary Studies (IS)/Global Cultures (EGC) . . . . . . . . . . 3
Total . . . . ........................................................... . . 15

\section*{Graduation Requirements}

Degree requirements include the following:
- a cumulative grade point average of 2.0 or higher for engineering courses
- a cumulative grade point average of 2.0 or higher for Industrial and Manufacturing Engineering courses numbered above 299
- completion of all departmental and University requirements
- completion of the Senior Assignment with IE 490, Integrated Engineering Design, and
■ a grade of C or better for IE 345, 468 and 483 for industrial engineering majors, or

■ a grade of C or better for IE \(345,365,370\) and 482 for manufacturing engineering majors.
- taking the FE (fundamental engineering) exam.

\section*{Minor Requirements for Industrial Engineering}

Twenty-one semester hours are required for the industrial engineering minor, including IE 345, 370, 415 and 451 and STAT 380. The remaining two courses are electives to be selected from the following four courses: IE 465, 468, 470, and 483. Other substitute electives are subject to approval by the chair/director of the industrial engineering program. A cumulative grade point average of 2.0 or higher is required for industrial engineering courses.

\section*{Bachelor of Science in Industrial Engineering with Specialization in Manufacturing Engineering}

If all three IE electives are taken among the following list of IE courses on manufacturing, students will graduate with a Bachelor of Science in Industrial Engineering with Specialization in Manufacturing Engineering:
IE 466 Engineering Metrology
IE 467 Total Quality and Taguchi Methods
IE 475 CAD/CAM/CAE
IE 480 Tool Engineering
IE 482 Manufacturing Eng. Design
Other substitute electives are subject to approval by the chair/director of industrial engineering.

\section*{Mechanical Engineering}

Mechanical engineering is concerned with the generation and use of energy as well as with structures and motion in mechanical systems. The program of study prepares students to contribute to the profession by applying existing technologies to new problems as well as developing new technologies to solve existing problems. Mechanical engineers apply their knowledge and creative abilities to a diverse array of problems such as designing systems for operation at the bottom of the sea and in outer space, as well as for the hostile environments found in many industrial processes. Mechanical engineers examine the basic phenomena of fluid turbulence or superconductors and the characteristics of composite materials, develop earthquake-resistant nuclear power plants and other facilities, and examine alternative energy conversion techniques for mobile and central station use.

The mechanical engineering program mission is consistent with the mission of the University and the School of Engineering. The department assigns first priority to excellence in undergraduate education. The program's educational objectives are dynamic and under continuous review by the program constituencies. These objectives are available on the school's home page, siue.edu/engineering/me.

\section*{Career Opportunities}

Upon graduation, mechanical engineers are prepared to contribute to society through professional practice in industry or government, or to continue their education through graduate study in engineering or applied sciences. Alternatively, they may choose to pursue a career in a related area such as business, law, or medicine.

\section*{Enrollment in Upper-Division Mechanical Engineering Courses}

The requirements for enrollment in upperdivision mechanical engineering courses are:

■ satisfactory completion of all University and School of Engineering admission requirements;
- an approved application for enrollment in upper-division engineering courses;
■ satisfactory completion of the lower-division (core) courses CE 204, 240, 242; CHEM 131 (or 121a), 135 (or 125a); CS 145 or 140; ECE 210; ENG 101, 102; MATH 150, 152, 250, 305; ME

262; PHYS 151, 151L, 152, 152L; and ACS 101; with a grade point average of at least 2.0 for the above courses is required for non-transfer students, transfer students from articulated programs, and Illinois resident transfer students; a grade point average of at least 2.25 for the above courses is required for other transfer students;
\(\square\) a grade point average of 2.0 or better in ME 262, CE 240, CE 242, and ECE 210 (both original and repeat grades are computed in this grade point average); and
■ a grade of C or better in ENG 101, ENG 102, ME 262 and CE 240 or their equivalent.
Note: All grade point averages for the mechanical engineering program are computed using the original and repeat grades. Exceptional cases will be reviewed by the faculty on a case-by-case basis.

\section*{Academic Status/Retention}

Students must meet the following standards. Students who fail to do so will be placed on probation in the major.
■ Maintain a cumulative grade point average of 2.0.
- Maintain a term grade point average above 1.0 in any term.

■ Maintain a cumulative grade point average of at least 2.0 in all mathematics and science courses.

■ Maintain cumulative grade point average of at least a 2.0 in courses taught in the School of Engineering.
- Maintain a cumulative grade point average of at least 2.0 in major courses numbered above 299.
- Receive no more than two failure grades, incomplete, and/or withdrawals in any combination for a single course required in the major.

Students placed on probation should seek immediate advisement and will be given the conditions required for removal from probation.

If the conditions are not met, the students are dropped from the major and may not enroll in upper-division School of Engineering courses without written departmental permission. After one year, students are eligible to reapply for admission to the major. Students dropped from the major may direct a written appeal to the department's undergraduate committee.

\section*{Degree Requirements, Bachelor of Science} Mechanical Engineering
Breadth - Physical Science Courses
CHEM 131 (or 121a) CHEM 135 (or 125a) MATH 152 MATH 250 MATH 305 PHYS 151 PHYS 151L PHYS 152 PHYS 152L
Breadth-Information \& Communication in Society Course STAT 380
Engineering Courses
\begin{tabular}{llcc} 
MCE 204 & CE 240 & CE 242 & CS 145 \\
IE 345 & ECE 210 & E262 & ME 310 \\
ME 312 & ME 315 & ME 350 & ME 354 \\
ME 356 & ME 356L & ME 370 & ME 380 \\
ME 380L & ME 410 & ME 410L & ME 482 \\
ME 484 & ME Electives (9hours) &
\end{tabular}

Engineering Elective (3 hours, check the Engineering Advisory
Office for a list of courses that satisfy this requirement)
Breadth
Fine \& Performing Arts (3 hours)
Life Science (3 hours)
Breadth-Humanities Course
PHIL 323

\section*{Foundations}

ENG 101 ENG 102 RA 101 MATH 150 (FQR) One of the following: ACS 101 or 103
Breadth-Social Science Course ECON 111

The following Experiences are also required: New Freshman

States Cultures (EUSC)
Interdisciplinary Course
To view a sample program for mechanical engineering, visit the School of Engineering Web site at siue.edu/engineering/me.

\section*{Sample Curriculum for the Bachelor of Science in Mechanical Engineering}
Fall Semester
Year 1
IE 106 - Engineering Problem Solving ..... 3
CHEM 131 - Engineering Chemistry (BPS) ..... 4
CHEM 135 - Engineering Chemistry Lab (EL) ..... 1
ENG 101 - English Composition I ..... 3
MATH 150 - Calculus I (BPS, FQR) ..... 5
Total ..... 16
Year 2
CE 204 - Engineering Graphics \& CAD ..... 3
CE 240 - Statics ..... 3
MATH 250 - Calculus III (BPS) ..... 4
PHYS 152 - University Physics II (BPS) ..... 4
PHYS 152L - University Physics Laboratory II (EL) ..... 1
Total ..... 15
Year 3
ME 310 - Thermodynamics I ..... 3
ME 350 - Dynamics of Mechanisms ..... 3
ME 354 - Numerical Simulation. ..... 1
ME 370 - Materials Engineering ..... 3
STAT 380 - Statistics for Applications (BICS) ..... 3
Fine \& Performing Arts (BFPA) .....  3
Total ..... 16
Year 4
ME 410 - Heat Transfer ..... 3
ME 410L - Thermal Fluid Laboratory ..... 1
ME 482 - Mechanical Engineering Design I. ..... 2
ME Elective I .....  3
IE 345 - Engineering Economic Analysis ..... 3
Interdisciplinary Studies (IS)/Global Cultures (EGC) ..... 3
Health Experience (EH) ..... \(0 / 2\)
Total ..... 15/17
Graduation Requirements
Degree requirements include the following:■ a cumulative grade point average of 2.0 orhigher in engineering courses;
a cumulative grade point average of 2.0 orhigher is required for mechanical engineeringcourses numbered above 299;■ completion of all departmental and Universityrequirements; and■ completion of a senior assignment as partof ME 482 and 484 Mechanical EngineeringDesign I and II.
Spring Semester
Year 1 ENG 102 - English Composition II. ..... 3
ACS 103 - Interpersonal Communication Skills (EUSC) ..... 3
MATH 152 - Calculus II (BPS) ..... 5
PHYS 151 - University Physics I (BPS) ..... 4
PHYS 151L - University Physics Laboratory I (EL) ..... 1
Total ..... 16
Year 2
ME 262 -Dynamics ..... 3
CE 242 - Mechanics of Solids ..... 3
ECE 210 -Electrical Circuits. ..... 3
ECON 111 - Principles of Macroeconomics (BSS) ..... 3
MATH 305 - Differential Equations I ..... 3
CS 145 - Intro to Computing for Engineers ..... 3
Application for Upper Division\# ..... 
Total ..... 18
Year 3
ME 312-Thermodynamics II ..... 3
ME 315 - Fluid Mechanics. ..... 3
ME 356 - Dynamic Systems Modeling. ..... 3
ME 380 - Design of Machine Elements ..... 3
ME 380L - Stress Laboratory ..... 1
PHIL 323 - Engineering, Ethics, \& Professionalism (BHUM) ..... 16
Year 4
ME 356L - Dynamical Systems Laboratory ..... 1
ME 484 - Mechanical Engineering Design II ..... 2
ME Elective II ..... 3
ME Elective III ..... 3
Life Science (BLS). ..... 3
Engineering Elective ..... 3
Total ..... 15

\section*{Minor Requirements}

Eighteen semester hours are required for a minor in mechanical engineering, including ME 262 and 310 . Remaining courses are electives to be selected from among the mechanical engineering courses subject to approval by the chair of mechanical engineering. A cumulative grade point average of 2.0 or higher is required for mechanical engineering courses.


\section*{School of Nursing}

Alumni Hall, Room 2117
siue.edu/nursing

\section*{Professors}

Bernaix, Laura W., Ph.D., 1995, St. Louis University
Perry, S. Anne, Ed.D., 1991, Southern Illinois University Edwardsville
Schmidt, Cynthia A., Ph.D., 1997, St. Louis University

\section*{Associate Professors}

Barron, Mary Lee, Ph.D., 2008, St. Louis University
Bell-Scriber, Marietta, Ph.D., 2005 Michigan State University
Comrie, Rhonda, Ph.D., 2005, Southern Illinois University Carbondale
Cruz, Virginia L., Ph.D., 1997, University of Iowa
Durbin, Christine R., Ph.D., 2007, University of Missouri-St. Louis
Gaehle, Kay, Ph.D., 2004, St. Louis University
Harrison, Roberta, Ph.D., 2007, University of Missouri-St. Louis
Kelly, Karen, Ed.D., 1983, Southern Illinois University Edwardsville
Ketchum, Kathy M., Ph.D., 2000, St. Louis University
Lyerla, Frank, Ph.D., 2007, St. Louis University
Riley, Marguerite, Ph.D., 1992, St. Louis University
Rowbotham, Melodie, Ph.D., 2007, University of Missouri-St. Louis
Yancey, Valerie, Ph.D., 1998, St. Louis University

\section*{Assistant Professors}

Griffin, Andrew, Ph.D., 2010, University of Hawaii at Manoa
Griffin, Valerie, D.N.P., 2013, Maryville University Jenkins, Debra, Ph.D., 2014, Illinois State University Luebbert, Rebecca, Ph.D., 2010, St. Louis University
Perez, Amelia, Ph.D., 2011, St. Louis University
Popkess, Ann, Ph.D., 2010, Indiana University
Romkema, Lisa, Ph.D., 2012, Saint Louis University
Shelton, Ann, Ph.D., 2008, University of Missouri-St. Louis
Sullivan, Carole, D.N.P., 2014 University of Southern Indiana
Winters, Susan, Ph.D., 1997, University of Virginia

\section*{Instructors}

Ampadu, Jerrica, M.S., 2002, Southern Illinois University Edwardsville
Astorino, Barbara, M.S.N., 2006, University of Missouri-St. Louis
Bachmann, Michele, M.S., 2007, Southern Illinois University Edwardsville
Boatman, Marilyn, M.S.N., 2007, Southern Illinois University Edwardsville

Chance, Charlotte, M.S., 2009, Southern Illinois University Edwardsville
Compton-McBride, Sheri, M.S., 2010, Southern Illinois University Edwardsville
Cooley, Tracy, M.S., 2013, Southern Illinois University Edwardsville
Darr, Paul, M.S.N., 2005, Rush University
Elliott, Faith, M.S.N., 2012, University of Phoenix
Emling, Christine, M.S.N., 1983, University of Evansville
Forbes, Brian, M.S.N., 2013, Chamberlain College of Nursing
Green, Lisa, M.S.N., 2007, University of Missouri-St. Louis
Hanshaw, Sandra, M.S., 2004, Southern Illinois University Edwardsville
Harmon, Elise, M.S.N., 2010, McKendree
Hoxsey, Jennifer, M.S.N., 2002, Jewish Hospital College of Nursing
Hunter, Osvaldo, M.S., 2003, Jewish College of Nursing
Jackson, Cheryl, M.S., 1998, Southern Illinois University Edwardsville
Kelly, Patricia, M.S., 2004, Southern Illinois University Edwardsville
Kennedy, Annette, M.S.N., 2011, Saint Louis University
Kohnen, Melissa, M.S.N., 2014, University of Missouri
LaFollette, Jean, M.S.N., 2010, University of Missouri-St. Louis
Nicholson, Heather, M.S.N., 2007, McKendree University
Petri, Carly, M.S., 2010, Southern Illinois University Edwardsville
Phelan, Caitlin, M.S., 2011, Southern Illinois University Edwardsville
Pietroburgo, Sheila, M.S., 2005, Southern Illinois University Edwardsville
Pritchett, Jo Ann, D.N.P., 2014, Southern Illinois University Edwardsville
Reed, Amy, M.S., 2012, Southern Illinois University Edwardsville
Schmitz, Jennifer, 2014, M.S., Southern Illinois University Edwardsville
Skelton, Stacy, M.S.N., 2002, University of Missouri-St. Louis
Sobczak, Bernadette, M.S., 2003, Southern Illinois University Edwardsville
Stark, Karen, M.S., 1978, Northern Illinois University
Stein, Kevin, M.S., 2008, Southern Illinois University Edwardsville
Stockamp, Angela, M.S., 2008, Southern Illinois University Edwardsville
Stutz, Angela, M.S., 2012, Southern Illinois University Edwardsville
VanKleef, Jody, M.S., 2002, University of Illinois at Chicago

\section*{Clinical Assistant Professor}

Jewell, Donna, Ph.D., 2007, University of Missouri-St. Louis
Omondi, Linda, D.N.P., 2007, Medical College of Georgia
White, Kim, Ph.D., 2005, Barry University
Wood, Terry, Ph.D., 2004, Saint Louis University

\section*{Clinical Instructor}

Behrhorst, Virginia, M.S., 1993, Southern Illinois University Edwardsville

Lecturers
Boyer, Gaylyn, M.S.N., 1982, University of California-Los Angeles
Collier, Rebecca, D.N.P., 2013, Southern Illinois University Edwardsville
Compton-McBride, Sheri, M.S., 2010, Southern Illinois University Edwardsville
Connoyer, Amanda, M.S.N., 2012, Saint Louis University
Droege, Jan, M.S., 2010, Southern Illinois University Edwardsville
Eason, Virginia, M.S.N., 1987, Saint Louis University
Ertel, Michelle, M.S., 2007, Southern Illinois University
Eversmann, Elizabeth, M.S.N., 2003, University of Alabama
Furfaro, Terri, M.S., 2004, Southern Illinois University Edwardsville
Gallagher, Susan, M.S.N., 2004, Saint Louis University
Gerber, Carey, M.S.N., 2007, University of Southern Indiana
Gopalan, Chaya, University of Glasgow
Hagen, Stacey, M.S.N., 2012, Regis University
Hamilton, Megan, M.S., 2008, Southern Illinois University Edwardsville
Hartzel, Karen, M.S., 1994, Southern Illinois University Edwardsville
Henske, Kendra, M.S., 2006, Southern Illinois University Edwardsville
Holley, Ruth, M.S.N., 2007, McKendree University
Lukowski, Cindy, M.S., 2013, Southern Illinois University Edwardsville
McGuire, Kelley, M.S., 2013, Southern Illinois University Edwardsville
Marks, Vivian, M.S.N., 2009, University of Southern Indiana
Martin, Evelyn (Lyn), M.S., 1991, Southern Illinois University Edwardsville
Miller, Debbie, M.S.N., 2008, McKendree University
Miller, Maureen, M.S.N., 1995, Saint Louis University
Murray, Kelly, M.S.N., 2000, University of Missouri-St. Louis

Peery, Kim, M.S.N., 2006, University of MissouriSt. Louis
Seabaugh, Dianne, M.S., 2000, Southern Illinois University Edwardsville
Tate, Sandra, M.S., 2000, Southern Illinois University Edwardsville
Taylor, Catherine, M.S.N., 2014, Walden University
Warsing, Jodie, M.S.N., 2012, Saint Louis University

\section*{Program Description and General Department Information}

The School of Nursing prepares future nursing leaders who reflect the fundamental values of SIUE. The school offers a bachelor's degree with a major in nursing for non-nurses with or without a previous college degree, and for registered nurses with associate degrees or diplomas in nursing. The program prepares a generalist in professional nursing, and graduates are eligible to take the NCLEX-RN examination for licensure as a registered nurse. The state-approved program is accredited by the Commission on Collegiate Nursing Education, and provides a foundation for graduate education. The School of Nursing also offers continuing education programs and a school nurse certification option. In response to the statewide nursing shortage and to make a baccalaureate degree in nursing more accessible to the southern part of Illinois, the SIUE School of Nursing has collaborated with Southern Illinois University Carbondale to offer a regional baccalaureate nursing program on the SIUC campus. The curriculum at the regional campus is identical to the curriculum offered on the Edwardsville campus. The SIUE nursing faculty will teach some classes at Carbondale and provide clinical supervision of the nursing students in the Carbondale area. Select classes may be offered via tele-education between the two campuses. Since the SIUE School of Nursing is the official home of the nursing program, the baccalaureate degree will be conferred by SIUE even though a student is taking classes on the Carbondale campus.
Nursing is defined by the School of Nursing as the protection, promotion and optimization of health and abilities, prevention of illness and injury, alleviation of suffering through the diagnosis and treatment of human response, and advocacy in the care of individuals, families, communities and populations (ANA, 2003, Social Policy Statement.)
Nursing courses build on a foundation in the liberal arts and sciences and are concentrated in the last six semesters of study. The undergraduate nursing curriculum is built on the themes of analytical reasoning, communication, role, human diversity, and ethics. Learning is
viewed as an active search by the learner in constructing and reconstructing knowledge. Learning involves social interaction that promotes a process of becoming a member of a sustained community of practice. Clinical and laboratory experiences are an integral part of the nursing major. Health care agencies in Central, Southern, and Southwestern Illinois and in the greater St. Louis area cooperate with the School of Nursing in providing opportunities to practice clinical skills and apply theoretical knowledge.
Faculty are nationally recognized experts in nursing care and their expertise represents a wide range of specialties. All faculty have advanced preparation in nursing and maintain an active role in clinical practice, research, scholarly inquiry and professional service.

\section*{Mission Statement}

The School of Nursing inspires students and faculty to embody the creativity to teach, the curiosity to learn, the courage to serve and the compassion to care for others in this diverse and complex world, forever exemplifying nursing excellence in action.

\section*{Characteristics of the Graduates}

Upon completion of the baccalaureate nursing program, the student:
- appraises all aspects of health care situations and consequences of chosen actions.

■ chooses effective communication approaches using strategies and theories integral to the practice of nursing.
- designs effective responses to identified health care concerns.

■ initiates investigation of professional issues.
■ integrates knowledge of human diversity and the effects of health and social policies on populations.

■ integrates personal and professional ethical code into professional practice.

■ incorporates understanding of moral judgments into determining ethical issues.

\section*{Career Opportunities}

Nursing is a learned profession built on a core of knowledge reflective of its dual components of science and art. As lifelong learners, professional nurses practice in a variety of settings such as hospitals, public health departments, schools, outpatient clinics, and home health and mental health agencies. The professional nurse partners with other
healthcare professionals in applying evidencebased knowledge combined with caring and compassion to provide quality care.

\section*{Degree Programs}

Bachelor of Science, Nursing
Options for completion:
Traditional
Post-Baccalaureate Accelerated
Accelerated R.N. to B.S. Nursing

\section*{Program Overview \\ Traditional Option-Program for Licensure}

\section*{Edwardsville \& Regional Program at Carbondale}

The Traditional Option-Program for Licensure is designed for first degree-seeking students with no previous college experience. It is offered at both the Edwardsville campus and the SIUC campus. The option at the Edwardsville campus is offered in a primarily face-to-face format. The regional program at the SIUC campus is identical to the curriculum offered on the Edwardsville campus. At the SIUC regional campus, select classes may be offered via teleeducation between the two campuses; others will be taught face-to-face. SIUE nursing faculty will teach classes at Carbondale and provide clinical supervision of the nursing students in the Carbondale area. Admission criteria are the same for both campuses. The Bachelor of Science degree will be conferred by SIUE. Upon successful completion of the option, students are eligible to take the National Nursing Licensure Exam (NCLEXRN) to obtain their license as a registered nurse.

\section*{Admission}

A prospective student may declare a preclinical nursing major during first semester as long as he/she is not enrolled in Academic Development classes and is in good standing.

Nursing applications are accepted September 15-March 1.
The deadline date for application is March 1 for fall admission.

The School of Nursing admission requirements are the same for the Edwardsville applicants and the SIUC regional campus applicants.
An application to the School of Nursing will be considered complete and ready to be reviewed for admission when all of the following criteria are met:
- Admission to the University by the March 1 deadline (requires submission of a university application and \(\$ 30\) fee) for Edwardsville
applicants. Students taking the pre-nursing curriculum on the SIUC campus do not have to apply for SIUE University admission until they receive a conditional admission letter from the School of Nursing. The \(\$ 30\) application fee is waived for these students.
- Completed nursing application and Minimum Technical Standards form on file in the School of Nursing by the March 1 deadline.
- Successful completion of the required admission prerequisite courses with a grade of \(C\) or better by the end of the fall semester (preceding the spring admission evaluation). The required prerequisites for admission are ENG 101, ACS 103 (or another approved prerequisite); CHEM 120a/124a, PSYC 111, and BIOL 140 (or a higher Biology prerequisite [BIOL 240a or BIOL 250]). *SEE NOTE BELOW*
■ Students must have a minimum prerequisite grade point average of 2.7 on a 4.0 scale (including transfer credit as well as credit earned at SIUE), and a minimum cumulative GPA of 2.5 for admission consideration.
■ Completion of the Health Education Systems Incorporated (HESI) A2 examination by the March 1 deadline covering math, reading comprehension, grammar and vocabulary. (A reading or math score below 75 percent will require an education action plan that is developed in the School of Nursing before admission).
NOTE: Prerequisite courses taken during the summer semester (preceding the fall admission term) will not be considered part of the application for admission.

\section*{Additional Prerequisite Requirements}

■ A failed prerequisite course (D, F, or WF grade) may not be repeated more than once to receive a passing grade of C or higher.
■ If a prerequisite course is repeated, the initial grade will remain in the grade point average calculation unless we have official documentation of the grade from the repeated course at the time of admission evaluation.
■ Students must complete all remaining required prerequisite courses with a grade of C or better by the end of the spring semester (preceding the fall admission term).
BIOL 140 is SIUE's prerequisite course for BIOL 240a and BIOL 250 which are taken in the spring semester. If you attended another college and have completed equivalent courses for BIOL 240a and BIOL 250, then you can use one of
these courses (in lieu of BIOL 140) for the fall Biology prerequisite requirement.
CLEP exams for prerequisite requirements are only accepted if the University accepts the individual exam.
Applicants will be prioritized on a point value system which reflects completion of the required admission prerequisite courses listed above and any repeats of the required science prerequisite courses. Repeating two separate science prerequisite courses to receive a passing grade (C or higher) will result in a lower point value which could affect the applicant's admission status.
Applicants are responsible for ensuring that their materials are received in the School of Nursing. Applications received after the deadline will be viewed on a space-available basis. Applications are available from the School of Nursing Web site (siue.edu/nursing) or from the School of Nursing in Alumni Hall, room 2117, or by calling ( 618 650-3956).
The application process is competitive. The School of Nursing reserves the right to limit the size of its entering class, therefore merely applying to the program and meeting or exceeding the stated minimum GPAs and HESI test scores does not guarantee admission into the nursing program.
Students are admitted to the School of Nursing at the end of their freshman year for enrollment in nursing classes in the following fall semester. Conditional acceptance will be issued in mid April of the spring semester. Final acceptance will be issued once the final grades of "C" or better are received for all of the required prerequisite courses for the entire freshman year, and the minimum prerequisite and cumulative gpa requirements are still upheld.

\section*{Direct Entry Admission}

Direct entry into the bachelor of science in nursing (BS) program is awarded to highly qualified incoming freshmen with an ACT composite score of 27 or higher. To be considered for direct entry, prospective freshmen must submit a completed undergraduate admission application plus a supplemental profile (siue. edu/direct) by December 1. Candidates should list nursing or "still deciding in nursing" as their intended major. Selection to the nursing program is guaranteed, provided the student satisfies prerequisite work in the first year at SIUE and maintains a 3.0 or higher prerequisite GPA. Prenursing course advisement will be conducted by School of Nursing advisors.

\section*{Retention}
\(\square\) Students must achieve a grade of 76 or above to pass a nursing course and progress to the next sequence of courses. The grading scale for the School of Nursing is: A=93-100; \(B=85-92 ; C=76-84 ; D=68-75\) and \(F\) below 68. Students will be excluded from the School of Nursing if they receive two failing grades (grades below C ) in nursing courses, two failing grades in the corequisite course Biol 240B (Human Anatomy \& Physiology II), or a combination of both.

■ All students admitted to the undergraduate nursing program are required to maintain a cumulative GPA of 2.0 or above.
■ Students must receive a grade of C or higher for all prerequisite and corequisite courses for nursing.

■ Pre-licensure and ABS students must complete the requirements of the standardized testing program.
- Students must meet the competencies standards set in the Minimum Technical Standards Policy of Admission and Matriculation.

■ Students must display conduct congruent of that expected of professional persons. (See Retention and Progression Standards in the Baccalaureate Student Handbook for details).

\section*{Transfer}

Transfer students follow the same criteria and procedures for admission as SIUE students. Please see the admission information listed above.

Students seeking admission whose prerequisite courses were taken at other colleges or universities must submit official transcripts to the Office of Admissions, SIUE, Box 1047 as part of the admission process. In addition, course descriptions obtained from official sources or course syllabi may be requested. The prerequisite and cumulative grade point averages will be calculated in the School of Nursing. Applicants are responsible for ensuring their record is current and complete.
Selected nursing courses will transfer only from baccalaureate programs accredited by the National League Accreditation Commission or Commission on Collegiate Nursing Education
and approved by the Student Affairs Committee of the School of Nursing. Course syllabi from the school of transfer will be reviewed for approval of credit and placement in the program by the Assistant Dean for Undergraduate Programs. Students are recommended to the Student Affairs Committee, where a final decision is made to accept the student transfer or not. Typically, nursing courses do not transfer from school to school. Up to 25 percent of the nursing curriculum hours can be accepted as transfer which equates to 16 semester hours for the Traditional Option.

\section*{General Education Requirements for the Traditional Option}

\section*{Admission Prerequisite Requirements}

To be completed by the end of the fall semester (preceding the spring admission evaluation): ENG 101; ACS 103 (or another approved prerequisite); CHEM 120a/124a; PSYC 111; and BIOL 140 (or a higher Biology prerequisite, BIOL 240a or BIOL 250).

\section*{Remaining Prerequisite Requirements}

To be completed by the end of the spring semester (preceding the fall admission term): ENG 102; CHEM 120b/124b;
Bacteriology (BIOL 250); Anatomy and Physiology I (BIOL 240a).
All science courses must be completed within seven years of admission to the program. A grade of C or better must be earned in all prerequisite courses.

\section*{Degree Requirements}

University General Education requirements are listed in the General Education section of this catalog and noted in the sample curricula.
\begin{tabular}{llll} 
NURS 231 & NURS 234 & NURS 240 & NURS 246 \\
NURS 341a & NURS 341b & NURS 352 & NURS 353 \\
NURS 354 & NURS 355 & NURS 472 & NURS 474 \\
NURS 475 & NURS 476 & NURS 479 & NURS 481 \\
NURS 482 & NURS 489 & & \\
\multicolumn{3}{l}{ Additional General Education (grade of C or better required) } \\
\begin{tabular}{ll} 
BIOL 240b & RA 101 \\
PHIL 320 or PHIL 321 & \begin{tabular}{l} 
STAT 107 (prior to \\
\\
\end{tabular}
\end{tabular} \begin{tabular}{ll} 
senior status)
\end{tabular}
\end{tabular}

\section*{Sample Curriculum for the Bachelor of Science Degree in Nursing}
Fall Semester
Year 1
ENG 101 -English Composition I ..... 3
ACS 103- or ACS 101 ..... 3
CHEM 120a Gen, Org, \& Biol Chem I (BPS) ..... 3
CHEM 124a Gen, Org, \& Biol Chem Lab (EL) ..... 1
BIOL 140 - Human Biology (BLS) ..... 3
PSYC 111 - Foundations of Psychology(BSS) ..... 3
Total ..... 16
Year 2
NURS 231 - Examination of Role of Profess Nurse ..... 4
NURS 234 - Human Development - Life Span .....  3
BIOL 240b - Anatomy \& Physiology II (BLS, EL) . ..... 4
RA 101 - Reasoning \& Argumentation (FRA) or PHIL 213 ..... 3
QR 101 - Quantitative Reasoning or MATH 150 ..... 3
Total ..... 17
Year 3
NURS 341a - Pharmacology for Nurses-Adult Medicine .....  2
NURS 352 - Care of Young and Middle Age Adults ..... 5
NURS 353 - Care of Older Age Adults ..... 5
IS 3XX Interdisciplinary Course (IS)/Global Cultures (EGC) ..... 3
Total ..... 15
Year 4
NURS 472 Nursing Research ..... 3
NURS 474 Care of Person with Mental Health Needs ..... 5
NURS 475 Care of Populations (EUSC) ..... 5
NURS 479 Senior Assignment ..... 1
Total ..... 14
The Health Experience requirement will be met for nursing majors.
Spring Semester
Year 1
ENG 102 - English Composition II. ..... 3
BIOL 250 - Bacteriology (LS) ..... 4
BIOL 240a - Anatomy \& Physiology I (BLS, EL) ..... 4
Chem 120b Gen, Org, \& Biol Chem II (BPS) ..... 3
Chem 124b Gen, Org, \& Biol Chem II Lab (EL) ..... 1
Total ..... 15
Year 2
NURS 240 - Pathophysiology (LS) ..... 4
NURS 246 - Foundation \& Assmnt in Nsg Practice ..... 6
STAT 107 Concepts of Statistics (BICS) ..... 3
Fine \& Performing Arts-Breadth (BFPA) ..... 3
Total ..... 16
Year 3
NURS 341b - Pharmacology for Nsg-Specialty Courses ..... 2
NURS 354 - Care of Women \& Childbearing Families. ..... 5
NURS 355 - Care of Children \& Adolescents ..... 5
PHIL 320 - Ethics or PHIL 321 - Medical Ethics (BHUM). ..... 3
Total ..... 15
Year 4
NURS 481 Nursing Leadership \& Management. ..... 3
NURS 482 Transition to Professional Practice Role . ..... 4
NURS 476 Care of Person with Complex Health Needs ..... 5
NURS 489 Senior Assignment .....  2
Total ..... 14
Total Course Credits for Graduation ..... 122

\section*{Post-Baccalaureate Accelerated Bachelor of Science Degree in Nursing (ABS) Option}

The Post-Baccalaureate Accelerated Bachelor of Science Degree in Nursing option allows students with a bachelor's degree to attain a B.S. degree with a major in Nursing through three semesters and one summer session. It is an intense, defined curriculum with a combination of classroom instruction and clinical experiences for students seeking a second baccalaureate degree. Coursework and clinical experiences are of the same high quality as the traditional firstdegree baccalaureate progression, but taken at an accelerated pace. Upon successful completion of the option, students are eligible to take the National Nursing Licensure Exam (NCLEXRN) to obtain their license as a registered nurse.
Students must be dedicated and willing to attend classes as many as five days a week and devote an appropriate amount of time to their studies in order to be successful with this option. The fulltime program begins in August (fall semester). ABS students pay differential tuition and fees as approved by the SIUE Board of Trustees.

\section*{Admission}

Applications for admission are available starting April 1. The application deadline is September 1 or until the option is full.
An application to the School of Nursing will be considered complete and ready to be reviewed for admission when all of the following criteria are met:
■ Admission to the University (requires submission of a university application plus a \(\$ 30\) fee)
■ Completion of a baccalaureate degree (in any major field) from an accredited college or university before enrollment in nursing courses
■ Cumulative GPA of 3.0 on a 4.0 scale (includes bachelor's degree cumulative GPA and any completed prerequisite course work)
■ Completed ABS application and Minimum Technical Standards form on file in the School of Nursing
■ Official transcripts from all college/ universities attended

■ Two letters of reference completed by persons in an educational, administrative, or collegial capacity who have worked with the applicant closely in the past five years
Applicants are responsible for ensuring that their materials are received in the School of Nursing.
Applications received after the deadline will be viewed on a space-available basis. Applications are available from the School of Nursing Web site (siue.edu/nursing) or from the School of Nursing in Alumni Hall, Room 2117, or by calling (618) 650-3956.

Application review for the Accelerated Option will begin following the application deadline. In order for an application to be reviewed all materials must be present. Students who meet and exceed the admission requirements will be admitted until the option is full. Qualified applicants for the accelerated program are admitted directly into the School of Nursing after meeting all admission requirements. Applying to the program and meeting the minimum admission criteria does not guarantee admission to the program.
Admitted students will be required to pay a nonrefundable Advance Deposit fee of \(\$ 175\) which will be applied to the student's tuition billing for fall enrollment. If the student does not attend, the fee is forfeited.

\section*{Retention}

For information about retention requirements, please refer to the Retention and Progression Standards in the Baccalaureate Student Handbook.

\section*{Transfer}

Transfer procedures for the ABS Option are the
same as those stated for the Traditional Option with the exception of the transfer hours accepted from other nursing programs. Up to 25 percent of the nursing curriculum hours can be accepted as transfer, which equates to 16 semester hours for the ABS Option.

\section*{General Education Requirements for the Accelerated Option}

\section*{Prerequisite Requirements}

To be completed by May 31 (prior to fall enrollment 2016) :
Anatomy and Physiology I (with lab)
Anatomy and Physiology II (with lab)
Inorganic, Organic Chemistry and Biochemistry (with labs)
Microbiology/Bacteriology (with lab)
Introduction to Psychology
Human Growth and Development (Life Span)
English Composition
Statistics
Ethics
NOTE: CLEP exams for prerequisite requirements are only accepted if the University accepts the individual exam.
All science courses must be completed within seven years of admission to the program. A grade of C or better must be earned in all prerequisite courses. A failed prerequisite course (D, F, or WF) may not be repeated more than once to receive a passing grade of C or higher.

\section*{Degree Requirements}
\begin{tabular}{llll} 
NURS 231 & NURS 240 & NURS 246 & NURS 341a \\
NURS 341b & NURS 352 & NURS 353 & NURS 354 \\
NURS 355 & NURS 472 & NURS 474 & NURS 475 \\
NURS 476 & NURS 479a & NURS 481 & NURS 482
\end{tabular}

\section*{Sample Curriculum for the Post-Baccalaureate Bachelor of Science Degree in Nursing}
Fall Semester
NURS 231 - Examination of Role of Profess Nurse ..... 4
NURS 240 - Pathophysiology ..... 4
NURS 246 - Foundation \& Assmnt in Nsg Practice ..... 6
Total ..... 14
Spring Semester
NURS 474 - Care of Persons with Mental Health Needs . .....  5
NURS 352 - Care of Young and Middle Aged Adults . ..... 5
NURS 353 - Care of Older Age Adults ..... 5
NURS 341a - Pharmacology for Nurses-Adult Medicine .....  2
Total ..... 17
Summer Session
NURS 472 - Nursing Research ..... 1 or 3NURS 354 - Care of Women and Childbearing Families . . . . . . . 5NURS 355-Care of Children and Adolescents. . . . . . . . . . . . . . 5
NURS 341b - Pharmacology for Nsg-Specialty Courses ..... 2
Total ..... 13 or 15
Fall Semester
NURS 481 - Nursing Leadership and Management ..... 3
NURS 482 - Transition to Professional Practice Role ..... 4
NURS 476 - Care of Person with Complex Health Needs .....  5
NURS 475 - Care of Populations ..... 5
NURS 479a - Senior Assignment ..... 1
Total ..... 18
Total Course Credits for Graduation ..... 62 or 64

\section*{Accelerated RN to BS Nursing Option}

The RN to BS program is designed for graduates of associate degree and diploma nursing programs. It is offered on-line (100 percent) on a part-time format to accommodate the needs of working RN's. The format of the program will be 8 week courses and the nursing curriculum can be completed in one year ( 3 semesters). Students may choose to complete the courses on a slower progression.

\section*{Admission}

The application for admission is available online and students are admitted every semester on a rolling basis. Contact the RN to BS advisor for details.

An application to the School of Nursing will be considered complete and ready to be reviewed for admission when all of the following criteria are met:

■ Admission to the University and the School of Nursing (requires submission of the online application for the Accelerated RN to BS Program and the \(\$ 30\) application fee)
■ Cumulative GPA of 2.0/4.0 scale (includes all college level courses)
- Official transcripts from all college/ universities attended

Applicants are responsible for ensuring that their materials are received in the School of Nursing.
The application is available from the School of Nursing Web site (siue.edu/nursing) or the University Admissions website at siue.edu/apply.

NOTE: Anatomy/Physiology 1 and 2,
Microbiology, and one college chemistry course must be completed prior to enrolling in any nursing courses.

\section*{Bridge Process}

Academic proficiency credit for lower-division nursing courses completed as part of their preparation for licensure program at another institution will be given to applicants who have completed their nursing course work within five years of acceptance into the SIUE School of Nursing Accelerated RN to BS program.
Applicants who have completed their nursing course work over five years prior to acceptance into the program are required to submit a portfolio of their professional work prior to their initial course in the program. The portfolio will be reviewed by the RN to BS Program Coordinator. Applicants should contact the RN to BS program advisor for details. The proficiency
credit is not applied to the student's transcript until successful completion of the bridge courses with a grade of C or better. The proficiency credits will apply towards the nursing major at SIUE.

\section*{Retention}

Retention requirements for the RN to BS Option are the same as those for the Traditional Option. Please refer to the Traditional Option or the Retention and Progressions Standards in the Baccalaureate Student Handbook for details.

\section*{Transfer}

Transfer procedures for the RN to BS Option are the same as those stated for the Traditional Option with the exception of the transfer hours accepted from other nursing programs. Up to 25 percent of the nursing curriculum can be accepted as transfer which equates to 5 semester hours for the RN to BS Option.

\section*{General Education Requirements for the Accelerated RN to BS Option}

Prerequisite Requirements - must have a "C"
 grade or higher

PREREQUISITES REQUIRED FOR ENROLLMENT
 INTHE PROGRAM:

Anatomy \& Physiology 1 (BLS, EL) . . . . . . . . . . . . . . . . . . . . 4
Anatomy \& Physiology II (BLS, EL) . . . . . . . . . . . . . . . . . . . . 4
Microbiology (LS) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Chemistry - one college level course (BPS) . . . . . . . . . . . . . . 4
COMPLETE "IMMERSION" PRIOR TO REGISTRATION IN NURS 240R:
Prior to registering for your first nursing course (NURS 240R), you must complete the "Immersion" to the RN-BS program on Blackboard. This immersion is separated into four modules. The first three modules provide information regarding (1) how to be a successful online student, (2) how to best use the Blackboard tools, and (3) library resources. In the fourth module, you will demonstrate successful use of many of the Blackboard tools used in the nursing courses. The "Immersion" will be a resource for students throughout the program.

\section*{ADDITIONAL PREREQUISITES REQUIRED BEFORE NURS 475R:}

English Comp I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
English Comp II ......................................... 3
Speech \({ }^{*}\)............................................... 3
Logic (Reasoning \& Argumentation) . . . . . . . . . . . . . . . . . . . 3
Statistics (BICS) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
Ethics (BHUM) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3
*NOTE: Public Speaking or Interpersonal Communications will meet this requirement for transfer students starting at SIUE before Fall
2015. For students starting Fall 2015 or later, Public Speaking will be required.
REMAINING GENERAL EDUCATION COURSES TO BE COMPLETED FOR DEGREE
Social Science (BSS) ..... 3
Fine \& Performing Arts (BFPA). ..... 3
Interdisciplinary Course ..... 3
Quantitative Reasoning. ..... 3
Global Cultures requirement (EGC) ..... 3
Elective Courses if needed (varies by student)120 hours are required for graduation
Degree Requirements for a Bachelor of Science Degree in Nursing
NURSING COURSES TO BE COMPLETED (in order listed) -22 hours - (8 week course format)NURS 240R - Pathophysiology.4
NURS 335R - Heath Assessment Strategies ..... 3
NURS 475R - Care of Populations ..... 5
NURS 472R - Scholarly Inquiry: Connecting Research to Practice (Capstone I) ..... 3
NURS 484R-Quality, Safety, and the Professional Nurse (Capstone II) ..... 3
NURS 480R - Nursing Leadership in HealthCare Systems (Capstone III)4
Total Nursing Credits through Enrollment ..... 22

\section*{Additional Curriculum Requirements for All Baccalaureate Students}

\section*{Service Commitment}

All Nursing majors are required to complete a Service Commitment. During the junior level clinical courses in the School of Nursing each student, with guidance from an assigned faculty clinical instructor, will select a service commitment. Students should expect to complete 5 contact hours with reflection per junior level clincial course (N352, N353, N354, N355) or 5 contact hours in N353 and N355 in the ABS program. The service hour commitment for the RN to BS students is 2 hours per capstone course for a total of 6 hours ( 2 hours in N472R, 2 hours in N484R, and 2 hours in N480R). A reflection on each service experience will be submitted to the instructor of the course.

\section*{Mentorship}

Each student upon enrollment into Nurs 479 will be assigned a faculty mentor during their senior year. Students are expected to meet with their mentor in designing and evaluating the senior assignment.

\section*{Senior Assignment}

All Nursing majors are required to complete a Senior Assignment. The student will be introduced to the Senior Assignment in NURS 479 or NURS 472R Scholarly Inquiry: Connecting

Research to Practice (Capstone I). The faculty mentor will guide the development of the Senior Assignment.
During the senior year, the students enroll in courses (NURS 479 and 489; 479 only for Accelerated students) dedicated only to Senior Assignment activities. RN students will complete capstone assignments during their last three nursing courses (NURS 472R, 484R, and 480R) to meet this requirement. At the end of NURS 480R, RN students will do an online presentation to the course participants, course faculty, and other invited faculty. The purposes of the formal classes are to write a scholarly paper and develop a poster presentation that represents the culminating experience that will be judged by the faculty community.

\section*{Standardized Exams}

Traditional Option-Program for Licensure and Accelerated Option students admitted to the School of Nursing are required to take standardized exams throughout the curriculum. In the last semester of the nursing curriculum, students are required to take a comprehensive exam.

\section*{Student Transportation to Clinical Practicum}

Students are required to travel to a variety of clinical sites for the practicum experiences. Transportation to those sites is the responsibility of the student.

\section*{Health/Background Check Information}

After admission into the Traditional and ABS nursing programs, students must submit the following materials (at the student's expense). These specifications are required by all clinical agencies. The Baccalaureate Student Handbook, issued to students accepted into the School of Nursing, contains full details.
■ Copy of a Physical Exam (according to School of Nursing guidelines)
- Immunization History plus (annual TB skin test and influenza injection required)
- Proof of CPR Certification (must maintain active status)

■ Proof of Health Insurance
■ Criminal Background Check
- Drug Screen

Students admitted into the RN to BS program will submit a criminal background check, drug screen, immunization waiver form, and an unencumbered registered nurse license (at the student's expense).

\section*{Minor Requirements}

A minor in nursing is not available.

\section*{Graduation Requirements}
- Completion of 122 credit hours for the Traditional Option
- Completion of 120 credit hours for the Accelerated RN to BS Option
- Completion of 62 or 64 credit hours for the ABS Option

■ Overall GPA of 2.0/4.0 scale
- Successful completion of School of Nursing Curriculum requirements
- Successful completion of Senior Assignment.

\section*{Non-Degree-Seeking Option}

\section*{Continuing Education}

The School of Nursing is an approved provider of continuing nursing education through the Illinois Nurses Association which is accredited as an approver of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation. The School of Nursing offers a variety of educational activities. More information can be found at siue.edu/nursing/academic/cont_ed.shtml.

\section*{Simulated Learning Center for Health Sciences}

The School of Nursing maintains a Simulated Learning Center for Health Sciences that provides students with opportunities to practice and expand clinical knowledge and skills in a simulated, technological environment. All dimensions of health care are practiced in this environment, which consists of computerized and non-computerized patient simulations.

\section*{siUe we Care Clinic}

The SIUE WE CARE clinic in East St. Louis, Illinois, provides comprehensive nursing services to promote, maintain, and restore the physical, emotional, and social wellbeing of its clients. Service offered at the East St. Louis and community sites include physical examinations, immunizations, health screenings, evaluation and management of acute minor and chronic illnesses and health education. Nursing students gain invaluable experience by working under the supervision of the Community Nursing Services staff. More information about the WE CARE clinic services can be obtained by calling (618) 482-6959.
Other Sources of Information
Prospective students and those currently enrolled may obtain additional information from academci profile sheets, School of Nursing bulletin boards, and the Student Handbook.


\section*{School of Pharmacy}

University Park Building 200, Room 220
siue.edu/pharmacy

\section*{Professors}

Crider, A. Michael , Ph.D. 1975, University of Kentucky
Gupchup, Gireesh V., Ph.D. 1996, Purdue University
Luer, Mark S., Pharm.D. 1990, St. Louis College of Pharmacy
Lynch, J. Christopher, Pharm.D. 1993, St. Louis College of Pharmacy
McPherson, Timothy, Ph.D. 1995, Purdue University
Poirier, Therese I., Pharm.D. 1979, University of Michigan; M.P.H. 1985, University of Pittsburgh
Ruscin, J. Mark, Pharm.D. 1993, University of Illinois at Chicago
Siganga, Walter, Ph.D. 1992, University of Maryland Baltimore

\section*{Associate Professors}

Behnen, Erin, Pharm.D. 2001, St. Louis College of Pharmacy
Bergman, Scott, Pharm.D. 2004, South Dakota State University
Devraj, Radhika, Ph.D. 1998, Purdue University
Gable, Kelly, Pharm.D. 2004, University of Mississippi
Hecht, Keith, Pharm.D. 2001, St. Louis College of Pharmacy
Herndon, Chris, Pharm.D. 1998, St. Louis College of Pharmacy
Kerr, Jessica, Pharm.D. 2001, St. Louis College of Pharmacy
Kolling, William, Ph.D. 1997, University of Iowa
Kontoyianni, Maria, Ph.D. 1991, University of North Carolina
Kwon, Guim, Ph.D. 1992, University of Michigan
Neumann, William L., Ph.D. 1988, University of Missouri-St. Louis
Nieto, Marcelo, Ph.D. 1999, National University of Córdoba, Córdoba, Argentina
Santanello, Cathy, Ph.D. 1990, Saint Louis University
Schober, Joseph, Ph.D. 2003, University of Illinois at Chicago
Witt, Ken, Ph.D. 2001, University of Arizona
Worthington, Ronald, Ph.D. 1982, Washington University in St. Louis

\section*{Assistant Professors}

Deshpande, Maithili, Ph.D., 2013, University of Wisconsin, Madison
Ferguson, McKenzie, Pharm.D. 2006, St. Louis College of Pharmacy

\section*{Clinical Professor}

Wuller, Cynthia, M.S. 1988, St. Louis College of Pharmacy

\section*{Clinical Associate Professors}

Butler, Lakesha, Pharm.D. 2005, Mercer University Fan, Jingyang, Pharm.D. 2001, University of Illinois at Chicago
Lubsch, Lisa, Pharm.D. 2001, St. Louis College of Pharmacy
Maynard, Cassandra, Pharm.D. 2001, St. Louis College of Pharmacy
Nelson, Miranda, Pharm.D. 2005, Auburn University
Ronald, Katie, Pharm.D. 2006, St. Louis College of Pharmacy
Wilhelm, Miranda, Pharm.D. 2002, University of Kansas
Wuller, William, M.S. 1990, St. Louis College of Pharmacy

\section*{Clinical Assistant Professors}

Arnoldi, Jennifer, Pharm.D. 2006, Midwestern University, Chicago College of Pharmacy
Basso, Andrea, Pharm. D. 2011, Saint Louis College of Pharmacy
Frueh, Janice, Pharm.D. 2007, Creighton University Gattas, Fred, Pharm.D. 2002, University of Tennessee
Gonzalez, Misty, Pharm.D. 2007, Purdue University
Gronowski, Scott, J.D. 1997, Saint Louis University
Newman, Katherine, Pharm.D. 2010, Southern
Illinois University Edwardsville
Rosselli, Jennifer, Pharm.D. 2003, St. Louis College of Pharmacy
Sheley, Jared, Pharm.D. 2012, Southern Illinois University Edwardsville
Vogler, Carrie, Pharm.D. 2007, Midwestern University, Chicago College of Pharmacy

\section*{Adjunct Research Assistant Professors}

Sandoval, Karin, Ph.D. 2004, University of Arizona

\section*{Program Description}

The School of Pharmacy is SIUE's newest academic unit, and represents a significant expansion of SIUE's educational offerings in the area of health sciences for Southern and Central Illinois. The School offers a 4 -year professional pharmacy program, leading to the Doctor of Pharmacy degree (Pharm.D.). The School of Pharmacy considers applications from qualified students who have completed a defined preprofessional curriculum at accredited colleges or universities. Opportunities to specialize in education and/or pediatric pharmacy are available to students in the third year of the professional program. Additional program options include the Pharm.D./MBA as well as
certifications in Organizational Leadership and Healthcare Information Systems.

\section*{Vision Statement}

Southern Illinois University Edwardsville School of Pharmacy will be a national model for exceptional pharmacy education, patient centered care and innovative research.

\section*{Mission Statement}

Southern Illinois University Edwardsville School of Pharmacy is an interdisciplinary educational community dedicated to the preparation of pharmacy professionals, scholars and leaders to improve the health and well being of the region and beyond.

\section*{Goals}

The goals of the School of Pharmacy are:
■ Advance innovative education, service and scholarship programs
■ Promote faculty and staff development and support
- Foster prospective pharmacy students

■ Expand and support professional growth of students and alumni
-Cultivate diversity and inclusiveness
■ Identify, develop and sustain external relations and financial support

\section*{Degree Program}

\section*{Doctor of Pharmacy (Pharm.D.)}

\section*{Program Overview and General Department Information}

The SIUE School of Pharmacy Doctor of Pharmacy (Pharm.D.) program is based upon a \(2+4\) model. To earn the Pharm.D. degree at SIUE, students must successfully complete the equivalent of a minimum of six years of college coursework (two years of pre-professional/ pre-pharmacy study followed by four years in the professional degree program). The first two years of pre-pharmacy coursework may be completed at any regionally accredited college or university, however the four years of professional education must be completed at the SIUE School of Pharmacy. Students who are interested in applying to the Pharm.D. program are encouraged to contact the School of Pharmacy Office of Professional and Student Affairs (OPSA) for further information prior to application to ensure that admissions policies and application procedures are understood. Application
information is available on the website at siue.edu/pharmacy/prospective/ or by calling (618) 650-5150.

\section*{Admissions Policies}

Admissions to the professional program of the SIUE School of Pharmacy are limited and highly competitive - it is anticipated that the instructional resources available to the School will enable approximately 80 new students to be admitted each fall term. For this reason, achieving the minimum pre-pharmacy subject and grade criteria does not guarantee admission. In selecting students for admission, the School will consider the applicant's cumulative grade point average (GPA), pre-pharmacy curriculum GPA, and pre-pharmacy GPA in science and mathematics courses. Only college level coursework is considered in these GPA calculations. Other evaluation criteria include the Pharmacy College Admissions Test (PCAT) score, letters of recommendation, and an on-campus interview which includes a formal writing assessment.
There are three pathways to gain admission into the pharmacy program: (1) traditional student;
(2) Conditional Entry Program (CEP) student; or
(3) transfer student.

\section*{Traditional Student}

Traditional students should begin the application process one year before their anticipated enrollment in the SIUE School of Pharmacy. The SIUE School of Pharmacy uses the Pharmacy College Application Service (PharmCAS).
To be considered for admission to the Pharm.D. 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 each of the following: cumulative grade point average for all post-secondary courses attempted (excluding graduate courses), pre-pharmacy curriculum grade point average, and pre-pharmacy science and mathematics grade point average.
■ Complete a PharmCAS application (http:// www.PharmCAS.org) and keep the PharmCAS record updated.
- Take the Pharmacy College Admission Test (PCAT) and scores must be submitted directly to PharmCAS.

■ Meet the technical standards for admissions and continued enrollment. For details, please visit siue.edu/pharmacy.
■ Complete and submit the professional program supplemental application. For details, please visit siue.edu/pharmacy.
■ 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 Pharm.D. program.

\section*{Conditional Entry Program Student}

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 indicate either pharmacy or pre-pharmacy as an area of intended study on 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.
To be admitted to the School of Pharmacy via CEP, students must matriculate at SIUE as a freshman and:
- Complete the Pre-Pharmacy Curriculum no later than the end of the spring term of their sophomore year.
- All courses listed in the Pre-Pharmacy Curriculum must be completed with a minimum grade of C .
- CEP participants must have a minimum grade point average of 3.5 (on a 4.0 scale) in each of the following: cumulative grade point average for all post-secondary courses attempted (excluding graduate courses), pre-pharmacy curriculum grade point average, and pre-pharmacy science and mathematics grade point average.
■ Complete a PharmCAS application (http:// www.PharmCAS.org) and keep the PharmCAS record updated.
■ Take the Pharmacy College Admission Test (PCAT) and scores must be submitted directly to PharmCAS.

■ Meet the technical standards for admissions and continued enrollment. For details, please visit siue.edu/pharmacy.
■ Complete and submit professional program supplemental application. For details, please visit siue.edu/pharmacy.

■ Successfully complete an on-campus professional program interview and writing assessment.
Based on the criteria above, successful candidates will be invited to matriculate in the Pharm.D. program.

\section*{Transfer Student}

The SIUE School of Pharmacy may accept students with advance standing subject to available positions in each class. An Advanced Standing Admissions Committee will evaluate all applicants applying with prior credits from another ACPE accredited degree program in pharmacy. Advanced standing admission can only be offered in fall semesters. To be considered for admission, students with advanced standing are required to:
■ Complete the Advanced Standing (Transfer Student) Application Form.
■ Be currently enrolled in an ACPE accredited professional Pharm.D. curriculum.
- Pay a \(\$ 40\) application fee.
- Provide the SIUE School of Pharmacy with official transcripts for all college coursework.
- Provide the SIUE School of Pharmacy with an official PCAT score if, at the time of application, the first professional year in the Pharm.D. program in which the student is currently enrolled has not been completed.
■ Have a minimum GPA of 3.0 (on a 4.0 scale) for all completed college coursework.

■ Have a minimum grade of " C " in all college courses.

\section*{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.
- Receive no more than 18 credit hours consisting of "D", "F", "WF", and "no credit" grades even if these grades were successfully remediated.
- Cannot receive a second suspension.

Students failing to meet the above may receive academic counseling, be put on academic probation, follow a remediation plan, or receive a dismissal recommendation from the Academic Standards \& Progression Committee.

\section*{General Education Requirements for the Major}

Students pursuing the Pharm.D. degree are not required to complete the university general education requirements. However, students are required to complete the pre-pharmacy curriculum listed below and included in the sample Pharm.D. curriculum outline (years one and two). Completion of the Pre-Pharmacy Curriculum does not in itself guarantee admission.

Pre-Pharmacy Curriculum
BIOL 150 BIOL 151 BIOL 240b BIOL 240a
CHEM 121a CHEM 121b CHEM 125a CHEM 125b
CHEM 241a CHEM 241b CHEM 245 ECON 111 ENG 101 ENG 102 MATH 150 PHYS 131/131L* PHYS 132/132L*
RA 101 or any PHIL
SOC 111 or PSYC 111
ACS 101
Any Humanities
*The School of Pharmacy will also accept PHYS \(151 / 151 \mathrm{~L}\) and \(152 / 152 \mathrm{~L}\). PHYS 151/151L has a prerequisite or corequisite of MATH 152 , Calculus II.

\section*{Degree Requirements Pharm.D.}
\begin{tabular}{llll} 
PHAS 708 & PHAS 709 & PHAS 716 & PHAS 728 \\
PHAS 733 & PHAS 753* & PHAS 755* & PHEP 714 \\
PHEP 715 & PHEP 730 & PHEP 731 & PHEP 732 \\
PHEP 746 & PHEP 747 & PHEP 751 & PHEP 752 \\
PHEP 780 & PHEP 781 & PHEP 782 & PHEP 783 \\
PHEP 784 & PHEP 785 & PHEP 786 & PHEP 789 \\
PHPR 706 & PHPR 710 & PHPR 711 & PHPR 713 \\
PHPR 721 & PHPR 735 & PHPR 744 & PHPR 748 \\
PHPR 749 & PHPS 700 & PHPS 701 & PHPS 702 \\
PHPS 703 & PHPS 704 & PHPS 705 & PHPS 707 \\
PHPS 720 & PHPS 722 & PHPS 745 & PHPT 724 \\
PHPT 725 & PHPT 726 & PHPT727 & PHPT 740 \\
PHPT 741 & PHPT 742 & PHPT 743 & Electives*
\end{tabular}
* Students select from one of the following: PHAS 753 or PHAS 755.
** Students are required to accumulate 11 elective credits for graduation. Approved internal and external electives are listed below. Students may apply no more than 5 hours of external electives and 4 hours of Independent Study toward completion of elective hours.

\section*{Approved Internal Electives:}
\begin{tabular}{llll} 
PHEL 760 & PHEL 761 & PHEL 763 & PHEL 764 \\
PHEL 765 & PHEL 766 & PHEL 767 & PHEL 768 \\
PHEL 769 & PHEL 770 & PHEL 771 & PHEL 772 \\
PHEL 773 & PHEL 774 & PHEL 775 & PHEL 776 \\
PHEL 777 & PHEL 778 & PHEL 779 & PHEL 780 \\
PHEL 781 & PHEL 782 & PHEL 783 & PHEL 784 \\
PHEL 785 & PHEL 786 & PHEL 787 & PHEL 788 \\
PHEL 789 & PHEL 790 & PHEL 791 &
\end{tabular}

\section*{Approved External Electives:}

This list contains classes that may be of interest to Pharm.D. 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:
\begin{tabular}{llll} 
ACS \(403 \quad\) ENG 491 & HED 240 & HED 464 \\
IS 343 PHIL 321 & PSYC 420 & PSYC 431 \\
SOCW 388* & \\
University of Minnesota \\
PHAR6612 Survey of Pediatric, Metabolic, Genetic, and \\
Oncologic Diseases \\
University of Florida \\
PHA6557 Clinical Toxicology I \\
PHA6935 Veterinary Pharmacy \\
PHA6357 Herbal and Dietary Supplements \\
University of Utah \\
School on Alcoholism and Other Drug Dependencies \\
*Students cannot earn credit toward the Pharm.D. for both \\
SOCW 388 Chemical Dependency and PHEL 786 Addiction \\
Additional requirements may be expected for professional \\
pharmacy students - see individual instructor for specific \\
information.
\end{tabular}

University of Minnesota
PHAR6612 Survey of Pediatric, Metabolic, Genetic, and Oncologic Diseases

University of Florida
PHA6557 Clinical Toxicology I
PHA6935 Veterinary Pharmacy
PHA6357 Herbal and Dietary Supplements
University of Utah
School on Alcoholism and Other Drug Dependencies
*Students cannot earn credit toward the Pharm.D. for both SOCW 388 Chemical Dependency and PHEL 786 Addiction Additional requirements may be expected for professional pharmacy students - see individual instructor for specific information.

\section*{Sample Pre-Pharmacy Curriculum}
Fall Semester
Year 1
CHEM 121a-General Chemistry I ..... 4
CHEM 125a-General Chemistry Lab I ..... 1
ENG 101 -English Composition I ..... 3
MATH 150 - Calculus I ..... 5
ACS 101 or 103-Oral Expression ..... 3
Total ..... 16
Year 2
BIOL 151 - Intro to Biological Sciences II ..... 4
BIOL 240a - Human Anatomy \& Physiology I ..... 4
CHEM 241a - Organic Chemistry I ..... 3
PHYS 131/131L - College Physics I ..... 5
Humanities or Fine and Performing Arts ..... 3
Total ..... 19

\section*{Sample Pharm.D. Curriculum}
1st Professional Year
PHPS 700 - Principles of Drug Action I ..... 4
PHPS 702 - Biochemical Principles for Pharmacy ..... 3
PHPS 704 - Biopharmaceutics and Drug Delivery I ..... 2
PHPR 706 - Introduction to Pharmacy Practice ..... 2
PHAS 708 - Health Care Systems ..... 3
PHPR 711 - Drug Information ..... 2
PHEP 714 - Introductory Pharmacy Practice Experience I:
Professional Role Observation. ..... 1
PHAS 716 - Ethical Issues in Health Care. ..... 1
Total ..... 18
2nd Professional Year PHPS 720 - Biopharmaceutics \& Drug Delivery III ..... 3
PHPS 722 - Microbiology \& Immunology ..... 3
PHPT 724 - Integrated Pharmacotherapeutics: CV ..... 5
PHPT 726 - Integrated Pharmacotherapeutics: Endocrine/ Metabolic/Renal ..... 4
PHAS 728 - Human Resources Management. ..... 2
PHEP 730 - Introductory Pharmacy Practice Experience III . . ..... 2
PHEP 732 - Pharmacy Rounds I (taken either fall or spring) . . ..... 1
Total ..... 19-20a
3rd Professional Year PHPT 740 - Integrated Pharmacotherapeutics: Psychiatry \& Neurology ..... 5
PHPT 742 - Integrated Pharmacotherapeutics: Women \& Men'sHealth2
PHP2 745 - Pharmaceutical Biotechnology ..... 2
PHEP 746 - Pharmacy Rounds II ..... 1
PHPR 748 - Medication Management Training I ..... 2
PHPR 749 - Infectious Disease Prevention and Immunization Training ..... 1
Electives ..... 5-6
Total ..... 18b (18-19)
4th Professional Year
PHEP 780 - APPE (Community Pharmacy) ..... 6
PHEP 781 - APPE (Hospital Pharmacy) ..... 6
PHEP 782 - APPE (Ambulatory Care) ..... 6
PHEP 783 - APPE (Acute Care/General Medicine) ..... 6
Spring SemesterYear 1BIOL 150 - Intro to Biological Sciences I
CHEM 121b - General Chemistry IICHEM 125b - General Chemistry II Lab4ECON111 - Principles of Macroeconomics3
ENG 102 - English Composition II ..... 3
RA 101 - Reasoning \& Argumentation (recommended) or any PHIL course ..... 3
Total ..... 18
Year 2
BIOL 240b - Human Anatomy \& Physiology II ..... 4
CHEM 241b - Organic Chemistry II. ..... 3
CHEM 245-Organic Chemistry Lab ..... 2
PHYS 132/132L - College Physics II ..... 5
SOC 111 or PSYC 111 ..... 3
Total ..... 17
PHPS 701 - Principles of Drug Action II ..... 2
PHPS 703 - Principles of Pharmacogenomics ..... 2
PHPS 705 - Biopharmaceutics and Drug Delivery II ..... 2
PHPS 707 - Pharmacy Skills and Techniques. ..... 2
PHAS 709 - Healthcare and Financial Management ..... 2
PHPR 710 - Biomedical Literature Evaluation. ..... 3
PHPR 713 - Self Care \& Alternative Medicines ..... 4
PHEP 715 - Introductory Pharmacy Practice Experience II. ..... 1
Total ..... 18
PHPR 721 - Clinical Pharmacokinetics ..... 2
PHPT 725-Integrated Pharmacotherapeutics: Infectious Diseases 5
PHPT 727 - Integrated Pharmacotherapeutics: GI/Rheumatology/
Pulmonary4
PHEP 731 - Introductory Pharmacy Practice Experience IV ..... 2
PHEP 732 - Pharmacy Rounds I (taken either fall or spring) ..... 1
PHPR 735 - Physical Assessment \& Patient Care. ..... 3
PHPR 744 - Health Promotion \& Literacy ..... 2
Total ..... 18-19a
PHAS 733 - Pharmacy Law ..... 3
PHPT741-Integrated Pharmacotherapeutics: OncologyHematology. 4
PHPT 743 - Integrated Pharmacotherapeutics: Other Topics ..... 2
PHEP 747 - Pharmacy Rounds III. ..... 1
PHEP 752 - Performance-Based Assessment III, .....  0
PHEP 751 -Advanced Pharmacy Practice Experience Preparation. . .
PHAS 753 or 755 - Management Selective ..... 2
Electives ..... 5-6
Total ..... \(18 b\) (18-19)
PHEP 784 - APPE (Specialized Practice) ..... 6
PHEP 785 - APPE (Specialized Practice) ..... 6
PHEP 786 - APPE (Specialized Practice) ..... 6
PHEP 789 - APPE (Capstone) ..... 3
Total ..... 45
a. Pharmacy Rounds I is either taken during the fall or spring term for a total of one credit.
b. Total credits varies depending on number of elective credits taken. Students are required to accumulate a total of 11 elective credits for graduation.
The Pharm.D. curriculum is subject to change per recommendations by Curriculum Committee.
The normal academic load is indicated for each semester. Students may be permitted to take more than these credits with the approval of the Office of Academic Affairs and the Pharmacy Advisor. Basic Life Support (BLS) Certification is required in order to progress from the first to the second professional year.

The entire P-4 year is comprised of Advanced Pharmacy Practice Experiences (APPE). Over the course of three semesters, students will complete seven experiences, each lasting five weeks. There are four "Core" or required experiences (Community Pharmacy, Hospital Pharmacy, Ambulatory Care Pharmacy and Acute Care General Medicine Pharmacy) and three elective rotations that take place in any of numerous pharmacy specialized practices. The final element of the APPE program is the "Capstone" Senior Project rotation during which students design and complete a project in cooperation with a preceptor and under the guidance of the Capstone Coordinator who is an SIUE School of Pharmacy faculty member.

\section*{Graduation Requirements}

Students must complete the curriculum in accordance with progression guidelines to be eligible for graduation from the Pharm.D. program.

Students are eligible to graduate when all of the following criteria have been met:
1. Students must successfully complete the Pharm.D. curriculum as approved by the faculty in the School of Pharmacy.
2. Students must complete 11 credit hours of electives
a. No more than 5 elective credit hours can be external elective hours
b. No more than 4 elective credit hours can be independent study hours
3.Students must be in academic good standing.
a. Students must have a cumulative GPA of 2.0 or above.
b. Students cannot have more than 8 cumulative credit hours of "D" grades in courses applied towards the Pharm.D. degree.
c. Students cannot have any "F" grades in courses applied towards the Pharm.D. degree.
d. Students cannot have any "no credit" grades in courses applied towards the Pharm.D. degree.


\section*{School of Dental Medicine}

2800 College Avenue Alton, IL 62002
siue.edu/dentalmedicine/

\section*{Professors}

Gillespie, M. Jane, Ph.D., 1986, University of New Mexico
Jain, Poonam, B.D.S., 1990, Maulana Azad Medical College; M.S., 1997, University of Iowa
Land, Martin F., D.D.S., 1975, University of Utrecht; M.S.D., 1978, Purdue University
McLeod, Dwight E., D.D.S., 1990, Howard University; M.S., 1993, University of Iowa
Miley, D. Douglas, D.M.D., 1983, Southern Illinois University; M.A., 1985, Indiana University
Milligan III, Wilbert H., D.M.D., 1979, Southern Illinois University
Rotter, Bruce E., D.M.D., 1982, (Dean) Southern Illinois University; M.S., 1990, University of Iowa

\section*{Associate Professors}

Belcher, Mark A., D.D.S., 1982, University of Illinois
Blackwell, Robert L., D.D.S., 1983, University of Illinois
Dixon, Debra A., D.M.D., 1993, Southern Illinois University; M.S., 2002, University of London
Douglas, R. Duane, D.M.D., 1989, University of Manitoba; M.Sc., 1996, State University of New York
Fischer, Gary M., D.M.D., 1982, Southern Illinois University
Gautam, Medha, Ph.D., 1985, University of Bombay
Hinz, Jessica G., Ph.D., 1997, University of Missouri
Misischia, Arthur J., D.M.D., 1978, Washington University; Certificate in Oral \& Maxillofacial Surgery, 1984, Washington University.
Rawson, Kenneth, D.M.D., 2005, Southern Illinois University; Certificate in Pediatric Dentistry, 2007, University of Nevada
Rieken, Susan E., D.M.D., 1995, Southern Illinois University
Roucka, Toni M., D.D.S., 1990, University of Illinois; M.A., 2007, Medical College of Wisconsin
Rowland, Kevin, Ph.D., 2003, West Virginia University
Seaton, William W., D.D.S., 1982, University of Missouri Kansas City
Sokolowski, Joseph E., D.D.S., 1982, University of Missouri Kansas City

Steinhauer, Tad J., D.M.D., 1999, Southern Illinois University
Stoeckel, Daniel C., D.D.S., 1997, MSc/ Certificate in Oral and Maxillofacial Pathology, 2000, University of Iowa; Certificate in Pediatric Dentistry, 2009, University of Louisville
Thomas, Cornell C., D.D.S., 1978, University of Missouri, Kansas City
Thornton, Charles B., D.M.D., 1974, Washington University; M.S., 1979, Saint Louis University

\section*{Assistant Professors}

Back, Brian C., D.M.D., 2008, Southern Illinois University
Banker, Jeffrey C., D.D.S., 1986, University of Illinois; M.S., 1992, University of Missouri
Bell, Andrea M., D.M.D., 2007, Southern Illinois University; Certificate in Dental Anesthesiology, 2013, Stony Brook Medicine
Biethman, Rick, D.M.D., 1980, Southern Illinois University; Certificate in Periodontics, 1985, VA Hospital Kansas City
Bitter, Robert N., D.M.D., 1978, Washington University St. Louis; Certificate in Periodontics, 1981, Northwestern University
Duncan, Randall C., D.D.S., 1983, University of Texas; M.S., 1988, University of Texas
Eapen, Asha, Ph.D., 2011, University of Illinois
Garcia, M. Nathalia, D.D.S., 1994, Pontificia Universidad Javeriana; M.S., 1997, Pontificia Universidad Javeriana
Hopp, Christa D., D.M.D., 2003, Southern Illinois University
Joy, Anita, Ph.D., 2010, Rush University
Ketteman, Daniel E., D.D.S., 1981, University of Missouri Kansas City
Langenwalter, Eric M., D.M.D., 1985, Southern Illinois University; M.S., 1987, University of Iowa
Omran, Mohamed, B.D.S., 2001, Al Arab Medical University; M.S., 2012, Saint Louis University
Pandarakalam, Cyril, M.D.S., 2007, Calicut Government Dental College; Certificate in Orofacial Pain and Oral Medicine, 2010, University of Southern California
Pierson, David F., D.M.D., 1990, Southern Illinois University; Certificate in Prosthodontics, 2001, Wilford Hall Medical Center
Poeschl, Charles F., D.D.S., 1980, University of Missouri; Certificate in Endodontics, 1988, Boston University
Shafer, Kathy J., D.M.D., 1988, Southern Illinois University
Welch, Danny B., Ph.D., 2011, University of California, Riverside

\section*{Program Description}

The SIU School of Dental Medicine in Alton, Illinois, offers a four-year academic program that awards the Doctor of Dental Medicine (D.M.D.) degree. The mission of Southern Illinois University School of Dental Medicine is to educate dentists and improve the oral health of the region through patient care, research/ scholarship and service. In addition to classroom, clinical, and research facilities, the school has recently opened a new multidisciplinary, preclinical simulation laboratory. The use of this facility will enhance the students preparation to be outstanding healthcare providers. The school also has broad capabilities in microscopy, including scanning electron microscopy and confocal microscopy as well as other sophisticated equipment with which to conduct biomedical research. Patient care is provided in state-of-the-art clinical facilities at the Alton campus and the East St. Louis Center.
The dental curriculum is a structured program that requires all students to participate in a specified course of study. During the first two academic years, the educational offerings center on the biomedical sciences such as anatomy, microbiology, physiology and pathology, and preclinical dental sciences such as operative dentistry, prosthodontics, pediatric dentistry, and community health. Courses consist of a mixture of didactic, laboratory, and clinical offerings.

The third and fourth years of the curriculum focus on more advanced aspects of dental treatment and the relationship of basic, medical, and social sciences to the treatment of dental disease. During the third and fourth years, the students devote the majority of their time to providing comprehensive clinical outpatient care.

The School of Dental Medicine also offers Advanced Education in General Dentistry, a one-year certificate program designed to enhance patient care skills acquired during the predoctoral education process. Training is conducted at the Alton campus, the East St. Louis Center and Touchette Regional Hospital. The program includes experiences with special needs patient populations, outpatient sedation, operating room care and training in dental implant techniques.
The dental school offers an implant fellowship as part of its postdoctoral training program. The fellowship is a one-year, non-certificate program that provides intensive training in implant dentistry within a comprehensive patient care environment. Training is conducted at the Alton campus. Clinical,
teaching and research experiences are emphasized throughout the program.

Additional advanced dental education opportunities include Master of Science programs in Endodontics and Periodontology with degrees awarded by the St. Louis University Graduate School. These unique programs combine the resources of the SIU School of Dental Medicine and Saint Louis University to educationally qualify the resident for specialty practice in endodontics or periodontology. Training is conducted at both campuses.
The school's admission committee, on a competitive basis, grants admission to the doctor of dental medicine (D.M.D.) program on completion of specific undergraduate academic requirements, satisfactory achievement on the Dental Aptitude Test, and successful review of the students' credentials.

\section*{Combined Arts and Sciences Dental Curriculum (B.S./D.M.D. Program)}

A special combined arts and sciences dental curriculum that leads to the degrees of Bachelor of Science and Doctor of Dental Medicine (B.S./D.M.D. Program) is available for students interested in attending Southern Illinois University Edwardsville for their undergraduate degree. The pre-professional part of the curriculum is completed in just three years on the Edwardsville campus, and the four-year professional portion at the School of Dental Medicine in Alton, Illinois. After successful completion of the first year of the combined program, a student is offered a tentative acceptance to the dental school, provided the student meets and continues to meet or exceed the conditions of the three-year preprofessional program. Students admitted to the School of Dental Medicine at the end of their junior year at SIUE may transfer appropriate credits toward the completion of the requirements for the Bachelor of Arts or Bachelor of Science degree in biological sciences with a specialization in medical science, or a Bachelor of Arts degree in chemistry with a specialization in medical science. For details, see the Biological Sciences and Chemistry sections of this catalog. Students interested in the dental program or the combined baccalaureate in biology/doctorate in dentistry (B.S./D.M.D.) program should write to the Office of Admissions and Records, Southern Illinois University School of Dental Medicine, 2800 College Avenue, Alton, IL 62002, phone (618) 474-7170.

\section*{Degree Programs}

\section*{Doctor of Dental Medicine (D.M.D.)}

Additional Postdoctoral program opportunities include:
- Advanced Education in General Dentistry (AEGD)
- Fellowship in Implant Dentistry
- M.S. in Periodontology
- M.S. in Endodontics

\section*{Program Overview and General Department Information}

\section*{Admission}

The absolute minimum prerequisite for admission to the School of Dental Medicine is successful completion of three academic years - 90 semester or 135 quarter hours - of undergraduate coursework, which includes the specified subjects listed below, at a fouryear accredited college or university in the United States, Puerto Rico or Canada. The majority of accepted applicants have completed requirements for a Bachelor of Arts or a Bachelor of Science degree prior to matriculation at the School of Dental Medicine. Admission requirements are subject to change. Please contact the School of Dental Medicine directly for the most current admission requirements.
The specific subjects or equivalents which must be included are:

\footnotetext{
* Inorganic Chemistry
* Organic Chemistry

Biochemistry
* Biology/Zoology
* Physics

English
8 semester or 12 quarter hours
8 semester or 12
quarter hours
3 semester or
5 quarter hours
8 semester or 12
quarter hours
6 semester or
9 quarter hours
6 semester or
9 quarter hours
*These courses must consist of a combination of laboratory and lecture instruction. It is strongly recommended that these courses be taken at a four-year accredited college or university.

The remainder of the predental program should be designed to contribute a broad cultural background; however, the program should not
}
exclude courses related to the S.D.M. curriculum such as anatomy, microbiology, physiology, genetics, etc. It is strongly recommended that these courses also be taken at a four-year accredited college or university.
It is possible that a tentative acceptance may be extended subject to fulfillment of these requirements; however, all course requirements, as proposed by the applicant, must be met in full before admission is granted. All academic admission requirements must be completed by July 1, prior to the desired date of matriculation.

\section*{Minimal Academic Expectations of Students/Graduation Requirements}

All students are expected to progress through the School of Dental Medicine program in good academic standing. Good standing is defined, minimally, as earning:
■ Passing grades in all courses (defined as 70.00 percent or higher);
- A minimum semester grade point average of 2.25 , in each semester;
- A minimum cumulative grade point average of 2.25;

■ Passing grades on all competency exams;
- A minimum requirement of discipline specific and comprehensive patient care points as described in the Student Interactive Learning Progress System (SILPS) document for clinical students in Year III and Year IV;
- Free of academic sanctions.

Note: The dental curriculum is designed to move the student from required foundational knowledge to more advanced clinical applications. As such, each semester presents a fixed set of courses that are prerequisite to the subsequent semester. There is no flexibility in the schedule of courses and all courses can be offered only one time per academic year. All courses must be successfully completed each semester in order to advance to the next semester. Therefore, a failure in a single course can prevent the promotion of a student. Single course withdrawals are not permitted. A student must be in good standing to be eligible for unconditional promotion from one academic year to the next and for graduation from the program.

\section*{Sample Curriculum for the Doctor of Dental Medicine}
Spring Semester
Year 1
DGPD 712 - Pediatric Dentistry I 2nd 9 weeks
DAMB 712 - Microbiology II ..... 18 wks.
DRFP 712 - Introduction to Fixed Pros. ..... 18 wks.
DGCP 712 - Community \& Preventive Dent. ..... 18 wks.
DROC 712-Occlusion I ..... 18 wks.
DRDM 712 - Intro to Dental Materials ..... 18 wks.
DAPA 712 - General / Systemic Pathology ..... 18 wks.
DICF 712a - Craniofacial Structure/Func. ..... 18 wks.
DICF 712b - Special Topics in Biomedical Sciences ..... 18 wks.
DICF 712c - Oral Histology ..... 18 wks.
DICF 712d - Oral Biology. ..... 18 wks.
DICF 712e-Craniofacial Function. ..... 18 wks.
Year 2
DAPH 722 - Pharmacology II 1st 9 Weeks
DGBS 722 - Dental Behavioral Science II ..... 1st 9 Weeks
DGPD 722 - Pediatric Dentistry III ..... 1st 9 Weeks
DRDA 722 - Dental Auxiliary Utilization. ..... 2nd 9 weeks
Physical Evaluation
DAOM 722 - Oral and Maxillofacial Surgery . . . . . . . 2nd 9 weeks
DAME 722 - Medical Emergencies . . . . . . . . . . . . . . . . . . . 18 wks.
DAEN 722 - Preclinical Endodontics . . . . . . . . . . . . . . . . . . 18 wks.
DRFP 722 - Fixed Prosthodontics II ..... 18 wks.
DAPE 722 - Periodontology II ..... 18 wks.
DRRP 722 - Removable Partial Dentures I ..... 18 wks.
DROD 722 - Operative Dentistry II ..... 18 wks.
DIPR 722 - Hard Tissue Oral Path/ ..... 18 wks.
/Oral Radiology
DIPC 726 - Introduction to Patient Care ..... 18 wks.
Year 3
DIIP 732 - Dental Implantology II ..... 1 st 9 wks.
DIOD 732 - Dental Anxiolysis, Sedation and
General Anesthesia ..... 1 st 9 wks.
DGPM 732a - Management in Dentistry . ..... 1 st 9 wks.
DGPM 732b - Dental Practice Management I ..... 2nd 9 wks.
DAIM 732 - Internal Medicine ..... 2nd 9 wks.
DGBS 732 - Dental Behavioral Science IV ..... 2nd 9 wks.
DRRP 732 - Adv Removable Prosthodontics ..... 2nd 9 wks.
DGOR 732-Orthodontics II ..... 2nd 9 wks.
DAPH 732 - Applied Pharmacology ..... 18 wks.
DAOM 732 - Oral \& Maxillofacial Surgery III ..... 18 wks.
DROC 732 - Occlusion II ..... 18 wks.
DGCP 732 - Oral Health Promotion \& Special Needs Patient Care ..... 18 wks.
DIIP 736 - *Professionalism \& Patient Mgmt. I . . . . . . . . . . 43 wks.
DGBS 736 - *Clinical Behavioral Science . ..... 43 wks.
DRDM 736 - *Clinical Dental Auxiliary Utilization. ..... 43 wks.
DAEN 736 - *Clinical Endodontics ..... 43 wks.
DAOD 736 - *Clinical Oral Diagnostics \& Oral Med ..... 43 wks.
DAOM 736 - *Clinical Oral and Maxillofacial Surgery . . . . 43 wks.
DGOR 736 - *Clinical Orthodontics. ..... 43 wks.
DGPD 736 - *Clinical Pediatric Dentistry ..... 43 wks.
DAPE 736 - *Clinical Periodontology. ..... 43 wks.
DRRP 736 - *Clinical Removable Prosthodontics ..... 43 wks.
DARA 736 - *Clinical Radiology ..... 43 wks.
DROD 736 - *Clinical Operative Dentistry . ..... 43 wks.
DRFP 736 - *Clinical Fixed Prosthodontics ..... 43 wks.
DGCP 736 - *Clinical Community Dentistry ..... 43 wks.
*Course continued from Semester I
\begin{tabular}{|c|c|}
\hline \multicolumn{2}{|l|}{Year 4} \\
\hline DGPM 740 - Dental Practice Management II & \\
\hline DGGD 741 - Issues In Geriatric Dentistry & 1st 9 wks. \\
\hline DISC 741 - Advanced Topic Selectives & 2nd 9 wks. \\
\hline DGPM 741 - Dental Practice: A Mgmt. Simulatio & 18 wks. \\
\hline DGPD 742 - *Advanced Pediatric Dentistry & 18 wks . \\
\hline DIPP 746 - *Professionalism \& Patient Mgmt & ks. \\
\hline DRDA 746 - *Adv. Clinical DAU & 43 wks . \\
\hline DGCP 746 - *Adv. Clinical Community Dentistry & 43 wks. \\
\hline DAEN 746 - *Advanced Clinical Endodontics & 43 wks . \\
\hline DAOD 746 - *Adv. Clinical Oral Diag/Oral Med/EM & 43 wks . \\
\hline DAOM 746 - *Adv. Oral \& Maxillofacial Surgery & 43 wks . \\
\hline DGOR 746 - *Adv. Clinical Orthodontics & 43 wks. \\
\hline DGPD 746 - *Adv. Clinical Pediatric Dentistry/ESL & 43 wks . \\
\hline DAPE 746 - *Adv. Clinical Periodontology & 43 wks . \\
\hline DARA 746 - *Adv. Clinical Radiology. & 43 wks. \\
\hline DRRP 746 - *Adv. Clinical Removable Pros & 43 wks . \\
\hline DROD 746 - *Adv. Clinical Operative Dentistry & 43 wks . \\
\hline DRFP 746 - *Adv. Clinical Fixed Prosthodontics, & 43 wks . \\
\hline IIP 746 - *Adv. Clinical Dental Implantology & 43 wks . \\
\hline graded until end of Semester II & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|}
\hline Year 4 DGPD 742 - *Advanced Pediatric Dentistry & 18 wks. \\
\hline DIPP 746 - *Professionalism \& Patient Mgmt. & 43 wks . \\
\hline DRDA 746 - *Adv. Clinical DAU & 43 wks. \\
\hline DGCP 746 -*Adv. Clinical Community Dentistry & 43 wks . \\
\hline DAEN 746 - *Advanced Clinical Endodontics & 43 wks. \\
\hline DAOD 746-*Adv. Clinical Oral Diag/Oral Med/EM & 43 wks . \\
\hline DAOM 746 - *Adv. Oral \& Maxillofacial Surgery & 43 wks . \\
\hline DGOR 746 - *Adv. Clinical Orthodontics & 43 wks. \\
\hline DGPD 746 - *Adv. Clinical Pediatric Dentistry/ESL & 43 wks. \\
\hline DAPE 746 - *Adv. Clinical Periodontology & 43 wks. \\
\hline DARA 746 - *Adv. Clinical Radiology. & 43 wks. \\
\hline DRRP 746 - *Adv. Clinical Removable Pros. & 43 wks. \\
\hline DROD 746 - *Adv. Clinical Operative Dentistry. & 43 wks . \\
\hline DRFP 746 - *Adv. Clinical Fixed Prosthodontics. & 43 wks. \\
\hline DIIP 746 - *Adv. Clinical Dental Implantology & 43 wks. \\
\hline *Course continued from Semester I & \\
\hline
\end{tabular}

GRADUATE SCHOOL

Jerry B. Weinberg, PhD

\section*{Graduate School}

Rendleman Hall, Room 2202
siue.edu/graduatestudents
The Graduate School of Southern Illinois University Edwardsville is committed to promoting graduate education and research of the highest quality. Its mission is to provide high-quality programs, foster intellectual development, and facilitate excellence in research and scholarly and creative activities. Sixteen percent of the students at the University are enrolled in graduate programs and specializations. Programs and specializations leading to master's degrees, specialist degrees, and post-baccalaureate and post-master's certificates are listed below. For admission information, go to Rendleman Hall, Room 1207, or visit siue.edu/graduatestudents.

\section*{Master of Arts}

Applied Communication Studies
Art Therapy Counseling
Biological Sciences
Economics and Finance
English/American and English Literature
English/Creative Writing
English/Teaching English as a Second Language
English/Teaching of Writing
History
Psychology/Clinical-Adult
Psychology/Industrial-Organizational
Sociology

\section*{Master of Arts in Teaching}

Master of Business Administration
Business Administration
Business Administration/Management Information Systems
Master of Fine Arts
Art Studio
Master of Marketing Research
Master of Music
Music/Music Education
Music/Music Performance

\section*{Master of Public Administration}

Master of Science
Biological Sciences
Chemistry
Civil Engineering
Computer Management and Information Systems
Computer Science
Economics and Finance
Electrical Engineering
Environmental Sciences
Geographical Studies
Healthcare Informatics
Industrial Engineering
Mass Communications
Mathematics
Mechanical Engineering
Nursing/Family Nurse Practitioner
Nursing/Health Care and Nursing Administration Nursing/Nurse Anesthesia
Nursing/Nurse Educator
Psychology/Clinical Child and School
Speech-language Pathology

Master of Science in Accountancy
Accountancy
Accountancy/Taxation
Master of Science in Education
Curriculum and Instruction
Options available:
Advanced Pedagogy
STEM Education
Secondary Education/Art
Secondary Education/Biology
Secondary Education/Chemistry
Secondary Education/Earth and Space Sciences
Secondary Education/English/Language Arts
Secondary Education/Foreign Languages
Secondary Education/History
Secondary Education/Mathematics
Secondary Education/Physics
Educational Administration
Instructional Technology
Kinesiology
Learning, Culture and Society
Literacy Education
Special Education

\section*{Master of Social Work}

Social Work
Social Work/School Social Work
Professional Science Master's
Biotechnology Management
Environmental Science Management

\section*{Specialist Degrees}

Educational Administration
School Psychology

\section*{Post-Master's Certificates}

Literacy Education/Literacy Specialist
Nursing/Nurse Anesthesia
Nursing/Family Nurse Practitioner
Nursing/Health Care and Nursing Administration
Nursing/Nurse Educator
Special Education
Post-Baccalaureate Certificates
English/American and English Literature
English/Teaching English as a Second Language
English/Teaching of Writing
History/Museum Studies
Instructional Technology/Web-Based Learning
Mass Communications/Media Literacy
Music/Piano Pedagogy
Music/Vocal Pedagogy
Doctoral Programs
(Degree conferred by Southern Illinois University Edwardsville)
Doctor of Nursing Practice
Doctor of Education in Educational Leadership

\section*{Cooperative Doctoral Programs}
(Degree conferred by Southern Illinois University Carbondale)
Doctor of Philosophy degree in Engineering Science
Doctor of Philosophy degree in History
For more information on gainful employment programs at SIUE, please visit www.siue.edu/ financialaid/certificate-programs2014.shtml


\section*{Non-Traditional Credit Programs and Services}

\section*{Educational Outreach}

The Office of Educational Outreach provides support services to departments and students who participate in off-campus classes or corporate partnership agreements. Faculty and students should contact this office for help with matters related to instruction and attendance at off-campus classes. SIUE, working with community colleges, other universities and businesses, may host courses delivered to or from SIUE via technology-mediated instruction. For schedules of classes being offered off-campus and for information about enrolling in these classes, students may contact Educational Outreach, Campus Box 1084, SIUE, Edwardsville, IL 62026-1084, phone (618) 6503210, or email outreach@siue.edu.

\section*{Off-Campus Classes}

Selected degree programs, identical to oncampus programs in academic content, are offered at various off-campus locations. University credit courses also are offered at sites in order to meet particular educational needs in various communities. The Office of Educational Outreach assists departments to comply with state reporting and federal campus safety mandates for off-campus courses. The office also may assist with marketing and recruitment efforts as well as admission, registration, fee payment and financial aid inquiries. Faculty and students are invited to contact this office for help with matters related to off-campus classes. Educational Outreach serves as a liaison between off-campus students and University offices. Institutions, agencies, or organizations interested in off-campus courses should contact the Educational Outreach at Campus Box 1084, SIUE, Edwardsville, IL 62026-1084, phone (618) 650-3215 or email outreach@siue.edu.

\section*{SIUE/SWIC Service Office}

The SIUE/SWIC Service Office at Southwestern Illinois College is open each weekday and some evenings. The office provides St. Clair Countyarea residents with a wide range of services including information about SIUE degrees and programs, onsite academic advisement for students participating in the SWIC-SIUE Partnership Programs,, liaison services with campus departments, a direct phone line to Edwardsville campus offices, University publications, information about transferring to SIUE, and applications for admission to SIUE. Office staff also provide support services for students enrolled in off-campus courses. To contact the SIUE/SWIC Service Office, call (618) 235-2700 ext. 5335, or (618) 650-2630, email rrenner@siue.edu.

\section*{SIUE/LCCC Service Office}

The SIUE/LCCC Service Office at Lewis and Clark Community College, Haskell Hall, Room B07 is open during regular business hours. . The office provides area residents with a wide range of services including information about SIUE degrees and programs, onsite academic advisement for students participating in the LCCC-SIUE Partnership Programs, liaison services with campus departments, University publications, information about transferring to SIUE, and applications for admission to SIUE. Office staff also provide support services for students enrolled in off-campus courses. To contact the SIUE/SWIC Service Office, call (618) 468-2628 or email dshiffl@siue.edu.

\section*{Web-Based Courses}

Web-based courses deliver \(75 \%\) or more of course content online. Web-based classes may meet face-to-face during a semester. Web courses require access to a computer with an Internet connection and a Web browser. The technical requirements for Web courses can be found at siue.edu/its. Web-based learning also requires study skills different from those of traditional courses.

\section*{Environmental Resources Training Center}

In 1977, the Environmental Resources Training Center (ERTC) was designated by the Illinois Environmental Protection Agency as the Illinois center for the continuing education of personnel involved in the operation, maintenance, and management of drinking water and wastewater treatment systems. ERTC courses are designed to assist entry-level personnel preparing for a career in drinking water and wastewater treatment systems, and persons already employed in such systems who desire additional education to upgrade job skills or prepare for more responsible positions. Also, the ERTC offers courses for licensed plumbers in cross connection control. Persons who complete ERTC courses are awarded Continuing Education Units (CEUs) by the University and receive education credits applicable to official certification as drinking water or wastewater treatment system operators or in cross connection control under requirements administered by the Illinois Environmental Protection Agency.

\section*{Associate in Applied Science Degree}

The ERTC now offers an associate in applied science degree in environmental treatment technologies - water treatment, in collaboration with Lewis and Clark Community College in Godfrey, Illinois. The program consists of three semesters of technical training at ERTC and two semesters of college-level classes at Lewis and Clark Community College. For information about the AAS degree, contact Lewis and Clark College at (618) 468-4800, or ERTC at (618) 650-2030.

\section*{Continuing Education Courses}

Each year, the ERTC presents about 50 continuing education courses for total of about 630 operators and managers of drinking water and wastewater treatment systems and licensed plumbers for cross connection control training. Each year, about 45 persons also enroll in ERTC-administered correspondence courses. These courses assist in upgrading job skills and in preparing for state certification exams administered by the Illinois Environmental Protection Agency. They include evening courses at the ERTC facility and in the Chicago area, and daytime workshops and seminars throughout Illinois. Persons interested in enrolling in these courses should call the ERTC at (618) 650-2030, send a fax to (618) 650-2210, or email marcweb@siue.edu.

\section*{Career Opportunities}

Demand is continually growing for safe drinking water and to maintain recreational waters of good quality. As a result, the need can be expected to
increase for skilled operators of drinking water and wastewater treatment systems. Persons interested in becoming a skilled operator should consider enrollment in the ERTC Water Quality Control Operations certificate program.

\section*{Water Quality Control Operations Certificate Program}

The ERTC Water Quality Control Operations program is a one-year, 35-40 hour-per-week program of study leading to a certificate of completion. Upon completing the program, a student is eligible to take the Illinois and Missouri certification exams to become certified as a beginning-level public water supply operator and wastewater treatment system operator. The learning environment for the students consists of a combination of classroom and hands-on operation of the 30,000-gallon per- day trainingscale drinking water and wastewater treatment plants housed at ERTC. More than \(\mathbf{5 0 0}\) people have graduated from this program since it began in 1981. About 85 percent of them have obtained employment in the drinking water and/ or wastewater treatment systems field. About 70 percent of the employed graduates work in Illinois and the St. Louis Metro area; the rest work in 16 other states.

\section*{Admission and Retention}

ERTC considers individual potential when granting admission to the program. Admission to ERTC requires a high school graduation or a GED Certificate. ERTC requires that applicants submit a written self evaluation and two personal references. Students must remain in good academic standing by maintaining a cumulative 2.00 (on a 4.00 scale) grade point average to be retained in the program, or to be eligible for an internship.

\section*{Class Enrollment}

Enrollment is limited to 35 students per academic year. Entry into the program is in the fall semester only.

\section*{Application for Admission}

Applications for admission to the ERTC program should be made directly to the ERTC. More information and application forms may be obtained by writing to the Director, Environmental Resources Training Center, Box 1075, SIUE, Edwardsville, IL 62026-1075, by phone at (618) 650-2030, by fax at (618) 6502210, or at siue.edu/ertc.
For more information on gainful employment programs at SIUE, please visit
siue.edu/financialaid/certificate-programs2014.shtml.

\section*{Curriculum}

The program emphasizes practical training during 35-40 contact hours per week. The theoretical aspects of drinking water and wastewater treatment presented in lecture sessions are supplemented by actual experience in laboratories, shops, pilot plants, and actual treatment plants. A 10 -week supervised work study internship is an integral part of the program.
All students enroll in an internship in a public water supply and/or wastewater treatment system. The courses taken each term are as follows:

\section*{Fall Semester}

Lect.Lab Total
ERTC 101 Wastewater Operations I \(4 \quad 4 \quad 8\)
ERTC 102 Water Supply Operations I 448
ERTC 103 Water Quality Laboratory I 26
ERTC 105 Mechanical Maintenance 34
ERTC 106 Water Quality
Math and Science
4 0 4
Total
\(\begin{array}{lll}17 & 18 & 35\end{array}\)
Spring Semester
Lect. Lab Total
ERTC 201 Wastewater Operations II \(4 \quad 4 \quad 8\)
ERTC 202 Water Supply Operations II \(4 \quad 4 \quad 8\)
ERTC 203 Water Quality Laboratory II 246
ERTC 205 Electrical/Instrumentation
Maint
246
ERTC 207 Water Quality
Communications
ERTC 208 System Maintenance
Total
\begin{tabular}{lll}
1 & 1 & 2
\end{tabular}
\(2 \quad 3 \quad 5\)
Summer Term
ERTC 300 Supervised Work Study, 40 hours per week for 10 weeks

\section*{ERTC Courses}

ERTC 101 Wastewater Operations I Introduction to physical, chemical, and biological treatment processes for wastewater is provided. The treatment processes covered include preliminary, primary, fixed film, stabilization ponds, and activated sludge. Additional topics covered include rules and regulations related to wastewater treatment operator certification, sources, characteristics, and public health aspects of wastewater. The ERTC pilot plant is used to obtain practical experience related to the operation and maintenance of actual wastewater treatment plants.

ERTC 102 Water Supply Operations I - Surface water treatment procedures are provided for the production of safe and acceptable drinking water from lakes and rivers. Specific topics covered include preliminary treatment, clarification, filtration, disinfection, taste and odor control, and corrosion control. Field trips to surface
water treatment systems are provided. The ERTC pilot plant is used to obtain practical experience related to the operation and maintenance of actual drinking water treatment systems.
ERTC 103 Water Quality Laboratory I — Basic introduction to chemistry and microbiology for the analysis of drinking water and wastewater. Topics include the proper care and use of glassware, equipment and chemicals; laboratory safety; laboratory techniques; and specific analytical techniques for selected drinking water and wastewater parameters.

\section*{ERTC 105 Mechanical Maintenance -}

Introduction to the operation and maintenance of mechanical equipment in drinking water and wastewater treatment systems is provided. This equipment includes centrifugal and positive displacement pumps, blowers, air compressors, motors, and speed reducers. Topics include lubrication, valves, bearings, connections, safety, proper use of tools and equipment, and maintenance documentation.
ERTC 106 Water Quality Mathematics and
Science - Review of basic mathematics and an introduction to drinking water and wastewater treatment system process control calculations to include chemical feed calculations. An introduction is provided to the science used in drinking water and wastewater treatment systems.
ERTC 201 Wastewater Operations II - The wastewater treatment processes covered include advanced activated sludge, aerobic and anaerobic digestion, sludge handling, sludge disposal methods, physical-chemical treatment, tertiary and industrial treatment systems. Field trips are provided to wastewater treatment plants. The ERTC pilot plant is used to provide practical experience related to the operation and maintenance of wastewater treatment plants.

\section*{ERTC 202 Water Supply Operations}

II - Groundwater treatment procedures are provided for the production of safe and acceptable drinking water from wells. Topics covered include iron and manganese control, operation and maintenance of wells, softening, fluoridation, process waste disposal, reverse osmosis, and ozonation. Field trips to ground water treatment plants are provided. The ERTC pilot plant is used to provide practical experience related to the operation and maintenance of water treatment plants.
ERTC 203 Water Quality Laboratory II Continuation of ERTC 103 with additional applications of chemistry and microbiology for the analysis of drinking water and wastewater.

Topics include laboratory management, quality control, record keeping, and specific analytical techniques for selected drinking water and wastewater parameters.

\section*{ERTC 205 Electrical/Instrumentation}

Maintenance - Introduction to the operation and maintenance of electrical and instrumentation equipment in drinking water and wastewater treatment systems. This equipment includes motors and their control systems, flow measurement systems, and water level indication systems. Topics include safety, proper use of electrical testing equipment, troubleshooting, calibrating procedures, and the use of electrical schematics and wiring diagrams. Site visits to electrical and instrumentation systems are provided.

\section*{ERTC 207 Water Quality Communications}
- Introduction to microcomputer applications to include word processing, file systems, and spreadsheets. Other topics include job interview
skills, employment survival skills, public relations, public notices, personal improvement, and resumé preparation.
ERTC 208 System Maintenance - Introduction to the operation and maintenance of wastewater collection and drinking water distribution systems. Topics include safety, construction, inspection, cleaning, service connections, water main disinfection, records, public notices, sampling procedures, flushing hydrants, meters, cross connection control, and water storage. Field trips are used to demonstrate current practices.
Supervised Work Study (Internship) — This course is a 10 -week work experience in drinking water and wastewater treatment systems. This work experience is coordinated by an ERTC staff member and is directly supervised by personnel employed at each treatment plant. A daily log, written report, and oral report describing this experience are prepared and presented to the ERTC staff at the conclusion of the work experience.

\section*{Non-Credit Programs and Services}

\section*{Conferences and Institutes}

The Conferences and Institutes unit of the Office of Educational Outreach provides specialized program planning services, career/professional development program record keeping, and logistical arrangements for University faculty and staff as well as for private business, professional organizations, government agencies, and community groups. The attractive, convenient, well-equipped facilities of the University provide an excellent setting for all types of meetings, seminars, workshops, continuing education programs, and special events. For more information, call Conferences and Institutes at (618) 650-3210, or cgorsag@siue.edu.

\section*{Continuing Education Units}

Continuing education units (CEUs) and Continuing Professional Development Units (CPDUs) reflect participation in approved Continuing Education activities. The Office of Educational Outreach processes all requests to offer CEUs and maintains master files of all CEU approved activities as well as participant records.
For information about CEUs or to request a transcript for CEU participation, contact the Office of Educational Outreach, Campus Box 1084, SIUE, Edwardsville, IL 62026-1084, call (618) 650-2164, or email cgorsag@siue.edu.

\section*{Continuing Professional Education (Accounting)}

The Office of Educational Outreach maintains records of continuing professional education (CPE) units earned at the university by certified public accountants under State of Illinois requirements regulating continuing education for CPAs. To receive a semester listing and schedule of accounting classes approved for CPE credit, or to request a CPE transcript, contact the Office of Educational Outreach, Campus Box 1084, SIUE, Edwardsville, IL 62026-1084, call (618) 650-2164, or cgorsag@siue.edu.

\section*{Educard}

The Educard program enables persons not enrolled at SIUE to attend selected classes on a space-available basis at a modest fee. No credit is earned, and no official University record is kept of Educard participation, but Educard learners may obtain a courtesy library card and may borrow undergraduate textbooks for the term they attend. For information about Educard policies and restrictions, or information about registering for Educard classes, contact the Office of Educational Outreach at (618) 650-3210, or outreach@lists.siue.edu.

\section*{Leisure Learning Activities}

Designed for adults of all ages, these activities provide opportunities for personal enrichment and leisure-time learning and are operated on a
cost-recovery basis. Leisure learning activities include many language courses such as German, Italian, Japanese, and Spanish, and a variety of other special-interest courses. To receive a schedule of leisure learning activities or to register for leisure learning activities, contact the Office of Educational Outreach at (618) 6503210, or outreach@lists.siue.edu. A complete list of leisure learning activities can be viewed at siue.edu/educationaloutreach.

\section*{Lifelong Learning Activities}

Sponsored by the Office of Educational Outreach, Lifelong Learning programs are offered both on and off campus and offer a variety of stimulating and educational lectures utilizing the gifts of SIUE faculty, staff, students, alumni, and community members. For details about these activities, contact the Office of Educational Outreach at (618) 650-3210 or email outreach@lists.siue.edu. A complete list of lifelong learning activities appears at siue.edu/educationaloutreach.

\section*{Office of Educational Outreach}

The Office of Educational Outreach sponsors a wide variety of noncredit and public service activities designed to meet the personal and professional continuing education needs of area residents and to extend the resources of the university to the people of southwestern Illinois and metro-east communities.

\section*{Summer Camps}

The Conferences and Institutes unit of the Office of Educational Outreach provides logistical support for SIUE summer youth camps on campus, as well as for private business, professional organizations, government agencies, community groups and grant-based programs. This specialized support can be multitiered from registrations to complete logistical oversight for each program. For details, call Cathy McNeese at Conferences and Institutes, (618) 650-3208, or email cmcnees@siue.edu.

\section*{Community Services}

\section*{Arts \& Issues}

Arts \& Issues is a series of distinguished speakers and performers that supports the academic mission of the university. Fifty free tickets are available for SIUE students for each Arts \& Issues event. Remaining tickets are \(\$ 15\). Students often meet and discuss issues with these renowned speakers in workshops, receptions and classes. Students in music, theater and dance work directly with visiting artists in master classes. More information is available at artsandissues.com.

\section*{East St. Louis Center}

As part of SIUE's commitment to community and public service in southwestern Illinois, the East St. Louis Center's mission is to improve the quality of life for individuals and families in East St. Louis and surrounding urban communities. The center, through research, identifies urban community needs and opportunities. The center plays a role in SIUE's baccalaureate, professional, and master's programs by supporting clinical and practicum experiences. It assigns first priority to encouraging, supporting, and improving the educational success of the residents of East St. Louis and surrounding urban communities. And it provides comprehensive programs, services and training in education, health, social services, and the arts.

The East St. Louis Center is the site of community service programs and activities that address a variety of public school and preschoolage children's needs. The center also encourages and helps potential college students, seeks to enhance the cultural and aesthetic values of those within the community, and fosters community involvement. Notable among the center's public service efforts are the Head Start/ Early Head Start programs, Upward Bound, The East St. Louis Charter High School, and the East St. Louis Center for the Performing Arts (formerly the Katherine Dunham Center for the Performing Arts).
The East St. Louis Center is on the East St. Louis Higher Education Campus. Also on the campus are three health-care facilities that provide services for citizens of metropolitan East St. Louis and Missouri. They are the Dental Clinic, supported by the School of Dental Medicine; Community Nursing Services, supported by the School of Nursing; and the Optometry Clinic, supported by the University of Missouri-St. Louis School of Optometry in conjunction with SIUE. Also on site are the Clinical Practice Offices supported by SIUE School of Pharmacy, and the Small Business Development Center, supported by the SIUE School of Business.

\section*{International Trade Center}

Alumni Hall, Room 2126
siue.edu/business/itc
The Illinois SBDC International Trade Center works directly with manufacturing and service businesses in Southern Illinois, helping them to increase sales through exporting. The center offers assistance in assessing client readiness for international sales, guiding clients through the many requirements necessary to enter into foreign markets, obtaining trade leads, market research, trade show participation, and arranging student projects related to international business. The center accomplishes these objectives through one-on-one counseling, training seminars, and workshops. The center works closely with other export assistance programs offered by the state and federal governments and by private organizations. The center is supported by a Small Business Administration grant from the Illinois Department of Commerce and Economic Opportunity as well as SIUE resources and services. Interested parties should contact the International Trade Center at (618) 650-2452, (618) 650-3851, international-trade-center@siue.edu, at siue. edu/business/itc.

\section*{Labor and Management Programs (LAMP)}

Labor and Management Programs (LAMP) promotes labor and management cooperation in southwestern Illinois through a variety of services. These services foster information sharing, communication, and problem solving, which help to strengthen labor management relationships and economic development in the region. By drawing on the faculty, staff and resources of the University, Labor and Management Programs provides services such as:
■ advising and supporting an area labor management committee;
■ sponsoring educational seminars and conferences;
- providing work-site change resources and materials;
- coordinating training and educational programs;
■ facilitating and coordinating problem solving and conflict resolution activities.

Those interested in these services may contact Labor and Management Programs at (618) 6502681 or mfinkel@siue.edu.

\section*{SIUE Small Business Development Center}

\author{
Alumni Hall 2126 and SIUE East St. Louis Higher Education Center, Building D siue.edu/business/sbdc
}

The SIUE School of Business hosts two Small Business Development Center offices (SBDC) - one on the SIUE main campus and the other at the SIUE East St. Louis Higher Education Center. Both centers benefit the southwestern Illinois business community by providing premiere business counseling and assistance to prospective and current small business owners and entrepreneurs throughout the nine counties surrounding the Edwardsville Campus. SBDC services include, but are not limited to, assisting small businesses with financial, marketing, production, organization, and technical issues, and feasibility studies. The SBDC also strives to reach socially and economically disadvantaged groups, veterans, women and the disabled, to help meet entrepreneurial aspirations.

\section*{WSIE Radio Station}

Serving the Greater St. Louis Area and southwestern Illinois, WSIE-FM (88.7) The Jazz Station provides quality music, news, SIUE sports and student programming for a diverse listenership, while broadening the visibility of SIUE and enhancing its image as an essential regional resource. As part of its overall educational mission, WSIE-FM offers practical training in the latest audio technologies for students, affording opportunities to work alongside industry professionals. Within a framework of creativity and freedom of artistic expression, WSIE-FM staff members encourage high academic standards and development of professional responsibility.

\section*{University Policies}

\section*{Alcohol and Drug Policies}

In accord with the Drug-Free Schools and Communities Act of 1989, each year SIUE advises students and employees of its policies requiring compliance with local, state, and federal laws governing illegal drugs and controlled substances and alcoholic beverages. Information is provided about the health effects of drug and alcohol use, penalties for violating applicable laws and university policy, and assistance, education, and referral programs provided by the university.

\section*{Alcohol Notification and Violence Disclosure}

The Family Educational Rights and Privacy Act permits institutions of higher education to disclose to parents or legal guardians of a student under the age of 21 years information regarding the violation of any federal, state, or local law, institutional disciplinary rule or policy regarding the use or possession of alcohol or a controlled substance. Further, the act permits institutions of higher education to disclose limited information from disciplinary records of students who have admitted to or been found guilty of a crime of violence where the records directly relate to such misconduct.
Recognizing that disclosure is permitted rather than required, SIUE will notify the parents of students under the age of 21 years regarding the violations of any federal, state, or local law or university disciplinary rules or policies pertaining to the use or possession of alcohol or a controlled substance at the discretion of the vice chancellor for Student Affairs or his or her designee.

\section*{Affirmative Action and Equal Opportunity}

SIUE is committed to affirmative action and equal opportunity for all persons in regard 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 an individual's age, color, disability, marital status, national origin, race, religion, sex, sexual orientation, veteran status, or other prohibited basis.
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.

Responsibility for this area is assigned to the Office of Equal Opportunity, Access, and Title IX Coordination, which is charged with developing and maintaining the necessary programs, records, and reports to comply with applicable state and federal statutes and regulations, and with carrying out the goals and objectives of affirmative action and equal opportunity.
Anyone seeking more information about SIUE's Affirmative Action Plan and equal opportunity should contact the Office for Equal Opportunity, Access, and Title IX Coordination, Room 3310, Rendleman Hall, Box 1025, SIUE, Edwardsville, IL, 62026-1025, (618) 650-2333, cmartaa@siue.edu.

\section*{Fair Practice}

SIUE maintains fair and reasonable practices in all matters affecting students: the delivery of educational programs, provision of support services, and due process with regard to disciplinary matters and the handling of grievances and complaints. 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 by the National Association of College and University Business Officers. Information about fair practices may be obtained from the Offices of the Provost and Vice Chancellor for Academic Affairs, the Vice Chancellor for Student Affairs, and the Office of Equal Opportunity, Access and Title IX Coordination, Room 3310, Rendleman Hall, SIUE Campus, Box 1025, Edwardsville, IL, 62026-1025.

\section*{Notification of Students Involved in Violent Crime}

SIUE will release the following information, upon request: the name of person(s) found to have committed a violent crime, the type of crime committed, the final disposition of the disciplinary process, and the sanction imposed. Students found responsible for such violations of the Student Code of Conduct which are considered "crimes of violence" as referred to in the Family Education Rights and Privacy Act (FERPA) [20 U.S.C. \(\S 1232 \mathrm{~g}\) (b) (6)], will be notified of the University's policy regarding the release of this information.

\section*{Statement on Right to Privacy and Nondisclosure}

Under the Family Educational Rights and Privacy Act (FERPA), all students have certain rights with respect to their education record. These rights include:
1. The right to inspect and review their official SIUE records in accordance with provisions of the aforementioned act and within the University guidelines. Inquiries regarding the Family Educational Rights and Privacy Act of 1974 should be directed to the Office of the Registrar.
2. The right to request the amendment of the education record that the student believes is inaccurate, misleading, or otherwise a violation of student's privacy rights under FERPA. A student who wishes to ask the University to amend a record should write to the University official responsible for the record, clearly identify the part of the record the student wants changed, and specify why it should be changed. The University will notify the student in writing of the decision and hearing procedures if appropriate.
3. The right to provide written consent before the University discloses personally identifiable information from the student's education records, except to the extent that FERPA authorizes disclosure without consent.
4. The University discloses education records without a student's prior written consent to school officials with a legitimate educational interest. A school official is a person employed by the University in an administrative, supervisory, academic or research, support staff position (including law enforcement unit personnel and health staff); a person or organization with whom the University has contracted as its agent to provide a service instead of using University employees or officials (such as an attorney, auditor, collection agent, or clinical/practicum site personnel); University-related organizations; or students assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibilities for the University. Upon request, the University also discloses education records without consent to officials of another school in which a student seeks or intends to enroll. The university may make accessible to any person directory information concerning students unless such release violates state and/or federal regulations. For example, in accordance with the Southern Illinois University Management Act, the University will not release a student's personal identifying information to a business or financial institution that issues credit or debit cards, unless the student is 21 years of age or older.
5. Directory Information includes:
- Student name

■ Student address and telephone number (local and permanent)
■ Student e-mail address
- Major field of study
- Classification
- Dates of attendance

■ Full or part-time status
- Attempted hours
- Degrees and awards received

■ Most recent educational agency or institution attended prior to enrollment at SIUE
\(\square\) Participation in officially recognized activities or sports
■ Weight or height of members of athletic teams
- Date of birth

Students may object to the release of their directory information by submitting a Directory Information Release form. This form is found in the Service Center or online at siue.edu/registrar/forms/pdf/ DirectoryInformationRelease.pdf. SIUE publishes a web directory located at siue.edu/search/ index.shtml. The information in the directory is refreshed once in fall and once in spring. To ensure exclusion from this online publication, the Directory Information Release form must be on file by the end of the first week of the semester during which the objection is to go into effect. Once filed, requests to withhold directory information will remain in effect until the student submits a written cancellation of the request.
6. The right to file a complaint with the U.S. Department of Education concerning alleged failures by the University to comply with the requirements of FERPA. The name and address of the office that administers FERPA is:

Family Policy Compliance Office
U.S. Department of Education

400 Maryland Avenue, SW
Washington, DC 20202-5901
Note: The University's complete Policy on Release of Student Information and Access to Student Records may be found at siue.edu/policies/3g2.shtml.

\author{
Annual Security and Fire Safety Report
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The SIUE Annual Security and Fire Safety Report is available online at siue.edu/securityreport. The report contains campus safety and security information, crime statistics, fire safety policies, and fire statistics for the previous three calendar years. This report is published in compliance with Federal law, titled the "Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act" and the Higher Education Opportunity Act, also known as the "Campus Fire Safety Right to Know." The report is also available for review at the Lovejoy Library Circulation Desk at SIUE; the Biomedical Library Circulation Desk on the SIU School of Dental Medicine Campus in Alton, Ill.;; the SIUE Satellite Police Station at the East St. Louis Higher Education Campus in East St. Louis, Il.; the Medical Library on the SIU School of Medicine Campus in Springfield, Ill.; and the Morris Library Circulation Desk at SIUC. For those without computer access, a paper copy of the report may be obtained, with a 24 -hour notice, from the Office of the Vice Chancellor for Administration, Rendleman Hall, Room 2228, (618) 650-2536.

\section*{Student Social Conduct, Student Academic Conduct, Student Grievance}

Students enrolling in SIUE assume responsibility for conduct compatible with the learning environment of the University. Students are expected to be familiar with the Student Code of Conduct, Student Academic Code, and Student Grievance Code. These policies describe the University's expectations for student conduct, sanctions imposed for violations of the standards, and procedures which students may follow in filing grievances. The University gives high priority to matters of academic ethics and abhors all types of cheating, including plagiarism. Plagiarism is the act of representing the work of another as one's own and may consist of copying or otherwise using written or oral work of another without proper acknowledgement of the source. Instructors may impose sanctions for academic cheating in accordance with the Student Academic Code.
Students who wish to understand matters relevant to academic ethics and plagiarism should consult their advisors or instructors. Copies of the codes are available in the Office of the Vice Chancellor for Student Affairs, the Office of the Provost and Vice Chancellor for Academic Affairs, the Graduate School, the Service Center, and in the Office of the Dean, School of Dental Medicine. An electronic version of the Code of Student Conduct can also be found at siue.edu/policies/3c1.shtml.

\section*{University Religious Observances Act}

The University Religious Observances Act (110 ILCS 110) prohibits institutions of higher education from discriminating against students for observing religious holidays or religious practices in regard to admissions, class attendance, scheduling of examinations and work requirements. Under the Act, "religious observance" or "religious practice" includes all aspects of religious observance and practice, as well as belief. Section 1.5 of the Act provides as follows, "Any student in an institution of higher learning, other than a religious or denominational institution of higher learning, who is unable, because of his or her religious beliefs, to attend classes or to participate in any examination, study, or work requirement on a particular day shall be excused from any such examination, study, or work requirement and shall be provided with an opportunity to make up the examination, study, or work requirement that he or she may have missed because of such absence on a particular day; provided that the student notifies the faculty member or instructor well in advance of any anticipated absence or a pending conflict between a scheduled class and the religious observance and provided that the make-up examination, study, or work does not create an unreasonable burden upon the institution. No fees of any kind shall be charged by the institution for making available to the student such an opportunity. No adverse or prejudicial effects shall result to any student because of his or her availing himself or herself of the provisions of this Section."
Any student who believes he or she has been unreasonably denied an educational benefit due to his or her religious belief or practices may seek redress with the professor of the class or with a University administrator or may file a complaint with the Office of Equal Opportunity, Access and Title IX Coordination (EOA), Room 3310, Rendleman Hall, Box 1025, SIUE, Edwardsville, IL, 62026-1025, (618) 6502333. The EOA complaint procedure is posted on the SIUE website at siue.edu/ policies/2c8. shtml. Moreover, the student may file a grievance pursuant to the Student Grievance Code. The code is posted on the SIUE website at siue.edu/provost/ fhb/6-5.shtml.
With respect to student work requirements, a student who believes that his or her religious belief or practice has not been reasonably accommodated may seek redress with the supervisor of the unit in which the student is employed, or may file a complaint with the Office of Equal Opportunity, Access and Title IX Coordination (EOA), as discussed above.

\section*{SIUE Sexual Harassment Policy}

Sexual harassment in higher education is Illegal. Everyone has the right to attend a college or university free from sexual harassment. The Illinois Human Rights Act makes it unlawful for teachers, professors, faculty members and other employees of colleges and universities to sexually harass their students. The Act specifically prohibits unwelcome advances or conduct of a sexual nature, and requests for sexual favors of students by an executive, faculty member, administrative staff member, or teaching assistant. The Act covers all public or private universities, colleges, community colleges, junior colleges, business schools, and vocational schools.
Examples of Sexual Harassment in Higher Education:
1. a professor who continually makes jokes of a sexual nature in the classroom;
2. a registration advisor who tells a student he or she might be able to get into a class if the student dates the advisor;
3. an admissions officer who tells a prospective student that the advisor will put in a "good word" for the prospective student if he or she dates the advisor;
4. a financial assistance advisor who tells a student that "if you have sex with me, I can look out for scholarships for you;"
5. a teaching assistant who promises a student a better grade if the student does not resist any inappropriate touching or sexual advances.

Protection Against Retaliation: It also is unlawful for a teacher or professor, or for the college or university, to retaliate against a student because the student reported sexual harassment, participated in an investigation of sexual harassment, or because the student filed a charge of discrimination with the Illinois Department of Human Rights.
What to Do: Any student who believes he or she is being subjected to sexual harassment or retaliated against, or anyone seeking more information about SIUE's Sexual Harassment Policy can contact the Office of Equal Opportunity, Access, and Title IX Coordination, Room 3310, Rendleman Hall, Box 1025, SIUE, Edwardsville, IL 62025-1025, (618) 650-2333 or email cmartaa@siue.edu The SIUE Sexual Harassment Policy is available online at siue.edu/policies/2c5.shtml.
Any student who believes he or she is being subjected to sexual harassment or retaliated against should contact the Illinois Department of Human Rights for more information or to file a charge. Students may contact the Department at (312) 814-6200 (Chicago) or (217) 785-5100 (Springfield), (866) 740-3953 (TTY); or by visiting the Department's website: illinois.gov/ dhr. Any charge alleging sexual harassment in higher education must be filed within 180 days of the alleged incident(s). Charge forms are available on the Department's website: www2. illinois.gov/dhr/FilingaCharge/Documents/ CIS_SXH. PDF.

\section*{University Facilities}

\author{
Art and Design Building (AD)
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Studios and offices for Painting, Drawing, Art Education, Art Therapy, Art History, 2D, Graphic Design, Textiles, Photography, Printmaking, Metals, Sculpture, Ceramics, and Glass, are located in the Art \& Design Buildings. The Art \& Design Complex is made up of two buildings connected on the second floor by an enclosed bridge.

\section*{Biotechnology Laboratory Incubator (BL)}

The Biotechnology Laboratory Incubator (BL) building was built in 2006 and is located in University Park. The BL is owned and operated by University Park Inc. and includes two chemistry teaching labs used to meet the general chemistry requirements of SIUE Nursing students. Two biology labs and a GIS facility were added in 2009. The teaching labs can accommodate up to 24 students each.

\section*{Birger Hall (BH)}

Dedicated in the fall of 2000, B. Barnard Birger Hall is home to the SIUE Alumni Association, SIUE Foundation and Office of Development and Public Affairs. The 12,000- square-foot facility is named for B. Barnard Birger, a longtime supporter of SIUE.

\section*{Bluff (BR), Prairie (PR), Woodland (WR) Halls}

Three residence halls - Bluff, Prairie and Woodland - are designed to house 500 students each. Student residential areas are designed in clusters with two student rooms sharing a common bath. Facilities include an open-access computer laboratory, study areas, meeting rooms, laundry, and recreation and activity space. Prairie and Woodland Halls are located south of the central academic core; Bluff Hall is west of the Engineering Building.

\section*{Center for Spirituality and Sustainability (RC)}

Just southwest of the academic core, a visually arresting geodesic dome structure designed by R. Buckminster Fuller houses this center, funded with private donations.

\section*{Cougar Village (CV)}

Cougar Village is a 496-unit apartment complex that is the home to upper class single students, graduate students and family residents.
Residents are assigned to two-bedroom and three-bedroom apartments. The apartments are just a short walk or shuttle ride north of the classroom buildings.

\section*{Dunham Hall (DH)}

Named after the famed dance pioneer Katherine

Dunham of East St. Louis, this building houses the Mass Communications, Music, and Theater and Dance Departments and the broadcasting studios of WSIE-FM. Plays, musical, recitals and concerts are held in the 396- seat theater. Scenery and costume shops, dance studios, dressing rooms, a state-of-the-art music recording studio, and a television studio complete with production and postproduction editing facilities are housed here.

\section*{Early Childhood Center (ECC)}

The Early Childhood Center is on the northwestern edge of the central academic core of campus. A State-of-Illinois-licensed child care center for children age two to six years, the center provides early childhood education to members of the SIUE community and also serves as a learning environment for SIUE education students.

\section*{Engineering Building (EB)}

The Engineering Building includes classrooms, labs, and offices for Civil, Computer Science, Construction, Electrical, and Mechanical and Industrial disciplines. A new addition to the existing building was recently completed to expand the facilities to accommodate the growth in Engineering.

\section*{Evergreen Hall (ER)}

Located at the corner of Circle Drive and Whiteside Road, Evergreen Hall combines the independence of apartment-style living with the amenities of a residence hall. Spaces are available in four floor plans: studio apartment, 4-person suite, 4-person apartment, and 6-person apartment.

\section*{Founders Hall (FH), Alumni Hall (AH)}

Bordered by a pond to the east, Peck Hall to the south, parking to the west, and Circle Drive to the north, these two academic buildings form a single complex connected by tunnel and skywalk. Faculty for the Schools of Business, Education, and Nursing and the College of Arts and Sciences share the buildings, which houses lecture halls, instructional laboratories, and conference rooms.

\section*{Lovejoy Library (LB)}

Named for martyred abolitionist newspaper publisher Elijah P. Lovejoy, the library houses a self-instruction lab, computer labs, an extensive audiovisual reference collection, an Illinois and U.S. Government Documents Depository, a rare books collection, an international library network, and thousands of electronic journals and books. A 100-seat auditorium on the lower level is used for musical performances, movies and lectures.

\section*{Metcalf Student Experimental Theater (ST)}

This facility, named for SIUE former budget director James F. Metcalf, is just northwest of the main core. It includes dressing rooms, storage, and a main stage area with a seating capacity of 200 .

\section*{Morris University Center (MUC)}

Morris University Center, named after Delyte W. Morris, President of Southern Illinois University from 1948-1970, is home to many activities and services. The building's Information Center assists persons who have questions about the university. The center provides dining facilities, including a Starbucks with open access computers and laptop hook-ups for students, faculty, and staff. It also offers newly renovated recreational facilities, including a 16 -lane bowling alley, table tennis, pool tables, and a card and game lounge. Other amenities include the University Bookstore, a convenience store, barber and beauty shop, ATM and conference rooms. Dances, movies, various entertainment programs, and other functions are held in Meridian Ballroom.

\section*{Student Success Center (SSC)}

Completed in summer 2009, the SIUE Student Success Center consolidates student services and resources to help improve recruitment, retention and graduation rates. The new addition houses, among others, Academic Advising, Career Development Center, Counseling Services, Disability Support Services, Center for International Programs, and Health Service.

\section*{Peck Hall (PH)}

The first building opened on campus is named for John Mason Peck, an early pioneer and educator in this region. In 1827, Peck founded Shurtleff College in Alton, Illinois - the first college in Illinois and now the site of the SIU School of Dental Medicine. Peck Hall is home to the College of Arts and Sciences, the Anthropology Teaching Museum, the Communication Laboratory, a computer laboratory, and laboratories for foreign language instruction. Two wings, opening from a center court, are used for classrooms; a third wing houses faculty offices.

\section*{Pharmacy Building (PL)}

The School of Pharmacy, in SIUE's University Park, incorporates technologically advanced classrooms, a Drug Information and Wellness Center, and pharmacy teaching and research laboratories in its innovative and contemporary curriculum.

\section*{Rendleman Hall (RH)}

The administration building, named for the university's first President, John S. Rendleman, houses offices of the Chancellor, Provost and Vice Chancellor for Academic Affairs, Vice Chancellor for Administration, Vice Chancellor for Student Affairs, Admissions, Service Center, Registrar, Bursar, Student Financial Aid, Educational Outreach, University Housing Contract Office and Parking Services.

\section*{Science Building (SL)}

Science Building complex includes a new teaching and research laboratory building for biology, chemistry, and environmental sciences. Physics, Mathematics, and the Science Technology Engineering and Math (STEM) program are temporarily re-located while the original Science Building is being renovated.

\section*{Student Fitness Center (SC)}

The Student Fitness Center opened for use in the spring of 1993, expanded in 1999, and expanded again in 2009. The facility, dedicated to student recreational use, includes six multipurpose courts, an elevated jogging track, weight training facilities, fitness and cardio facilities, exercise studios, an aerobics training room, and a wellness center designed to provide health and fitness assessment and programming.

\section*{Vadalabene Center (VC) and Lukas Anne}

The Sam M. Vadalabene Center for Health, Recreation, and Physical Education is named after former Illinois Senator Sam Vadalabene of Edwardsville. This multipurpose building, used for campus-wide recreation and intramural and intercollegiate sports, is located on the north edge of the central academic core. It houses a swimming pool; racquetball courts; a rock-climbing gym; a 33,000-squarefoot multipurpose room; lockers/ showers; rooms for dance, combat, and weightlifting sports; laboratories; classrooms; and offices for the athletics staff and the Department of Kinesiology and Health Education.

\section*{Other Facilities}

Stadium drive is home to SIUE athletics' Ralph Korte Stadium, including Bob Guelker Field (soccer); the Simmons Law Firm Baseball Complex, including Roy Lee Field (baseball); and Cougar Stadium and Fulginiti Indoor practice facility (softball). The SIUE Tennis Courts are on Cougar Drive, adjacent to the Vadalabene Center. Other facilities such as the Supporting Services, the Clifford H. Fore Environmental Resources Training Center, the School of Dental Medicine at Alton, the Springfield Nursing facility, and the East St. Louis Higher Education Campus, are remote from the campus core.


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Verderber, Nadine L., Professor of Mathematics and Statistics, Ph.D., 1974, Ohio State University
Vilhauer, William W., Professor of Theater and Dance, Ph.D., 1965, University of Iowa
Voller, John G., Professor of English Language and Literature, Ph.D., 1987, University of California - San Diego
Wagner, Robert M., Professor of Special Education and Communication Disorders, Ph.D., 1971, Saint Louis University
Wallace, Mona Ruddy, Associate Professor of Nursing, Ed.D., 1983, University of Missouri St. Louis
Wanda, Paul E., Professor of Biological Sciences, Ph.D., 1978, Pennsylvania State University
Waxman, Bernard M., Professor of Computer Science, Emeritus Professor, S.C.D., 1989, Washington University
Weber, Joseph A., Professor of Curriculum and Instruction, Ph.D., 1983, Saint Louis University
Weingartner, James J., Professor of Historical Studies, Ph.D., 1967, University of Wisconsin
Weiss, Stuart L., Professor of Historical Studies, Ph.D., 1961, University of Chicago
Werner, David J., Professor of Computer Management and Information Systems, Ph.D., 1969, Northwestern University
White, J. Edmund, Professor of Chemistry, Ph.D., 1958, Indiana University
Whiteside, William, Professor of Special Education and Communication Disorders, Ph.D., 1969, Southern Illinois University Carbondale
Wilbraham, Antony C., Professor of Chemistry, Ph.D., 1965, Royal Institute of Chemistry
Wiley, W. Deane, Professor of Education Leadership, Ph.D., 1966, Claremont Graduate School
Williams, Robert A., Professor of Curriculum and Instruction, Ph.D., 1975, Georgia State University
Wilson, Howell K., Professor of Mathematics and Statistics, Ph.D., 1964, University of Minnesota
Wilson, Rudolph G., Associate Professor of Curriculum and Instruction, B.A., 1964, California State University, Los Angeles
Winnett, David A., Professor of Curriculum and Instruction, Ed.D., 1988, Southern Illinois University Edwardsville

Wolf, Robert G., Professor of Philosophy, Ph.D., 1970, Saint Louis University
Woods, William I., Professor of Geography, Ph.D., 1986, University of Wisconsin Milwaukee 2014-2015 Undergraduate Catalog 303
Yarbrough, Ronald E., Professor of Geography, Ph.D., 1972, University of Tennessee
Youn, Luis T., Professor of Electrical and Computer Engineering, Ph.D., 1985, University of Houston- Downtown Dollege
Ziegler, Robert J., Associate Professor of English Language and Literature, Ph.D., 1972, University of Rochester


\section*{Course Descriptions}

The information published in the Course Descriptions section of this catalog is correct at the time of printing. Addition and removal of courses from the course inventory as well as changes to course descriptions and prerequisites occur over time. The current inventory of course offerings (including course prerequisites) for each term is located in the Course Catalog section of CougarNet. Students are encouraged to review course prerequisites and descriptions prior to registration each semester.

\section*{Designations Used in Course Descriptions}

Some courses listed in this section of the catalog will fulfill general education requirements. The following abbreviations, when listed with the course description, indicate how the course may be used to meet general education requirements. The specific components of the Lincoln Program are:

Foundations: All students are required to take five (5) Foundations courses which develop competencies in written and oral communication, logic, and quantitative literacy that form the bases of information literacy and scientific literacy.
[FQR] Foundations/Quantitative Reasoning
[FRA] Foundations/Reasoning \& Argumentation
[FSPC] Foundations/Oral Communication
[FW1] Foundations/Written Expression 101
[FW2] Foundations/Written Expression 102
Breadth Areas: All students are required to take six (6) Breadth courses (one from each of the following areas) which provide the opportunity to explore the breadth of human knowledge by introducing students to the principles, substance, and methodology of disciplines beyond their major. These courses are distributed across six Breadth Areas: Fine and Performing Arts, Humanities, Information and Communication in Society, Life Sciences, Physical Sciences, and Social Sciences.
[BFPA] Fine and Performing Arts - Breadth
[BHUM] Humanities - Breadth
[BICS Information and Communication in Society - Breadth
[BLS] Life Sciences - Breadth
[BPS] Physical Sciences - Breadth
[BSS] Social Sciences - Breadth
Interdisciplinary Studies: All students are required to take one (1) Interdisciplinary Studies course to foster awareness of the interrelationships among branches of human knowledge.

Interdisciplinary Studies

\section*{Experiences:}

New Freshman Seminar: All new freshmen are required to enroll in a New Freshman Seminar that introduces students to university learning, expectations, and procedures by exploring various topics of academic and civic interest with a faculty member.
Laboratory Experience: All students are required to take a laboratory course in order to develop scientific literacy that helps shape informed citizens.
United States Cultures Experience: All students are required to take a course or complete an approved project or activity that explores the diverse, pluralistic population of the United States and the contributions these diverse groups have made to our shared culture.
Global Cultures: All students are required to take a course or complete an approved project or activity that explores one or more non-US cultures in order to gain an appreciation and understanding of human diversity in a dense, globally interconnected world.
[FRSM] Freshman Seminar
[EL] Laboratory - Experience
[EUSC] United States Cultures - Experience
[EGC] Global Cultures - Experience
Other Designations Found in Course Descriptions Section include:
[SKCP] Skills Computer Concepts Course
[SKFL] Skills Foreign Language Course
[SKLG] Skills Logic Course
[SKOC] Skills Oral Communication Course
[SKST] Skills Statistics Course
[SKW1] Skills Written Expression 101 Course
[SKW2] Skills Written Expression 102 Course
[IFAH] Introductory Fine Arts and Humanities
[INSM] Introductory Natural Sciences and Mathematics
[ISS] Introductory Social Sciences
[DFAH] Distribution Fine Arts and Humanities
[DNSM] Distribution Natural Sciences and Mathematics
[DSS] Distribution Social Sciences
[IC] International Culture
[IGR] Intergroup Cultural Relations
[II] International Issues
[IAI] Illinois Articulation Initiative
For additional resources on general education requirements, please visit: siue.edu/registrar/ genedguides.shtml.

\section*{Academic Development (AD)}

\section*{Academic Development (AD)}

Institutional credit is given for zero-level Academic Development courses (AD 070 - AD 095). Such credit may not be used for graduation, and letter grades are not calculated in the grade point average.
070-3 Beginning Algebra - This course will include the study of signed numbers, fractions, integer exponents, algebraic expressions, solving linear equations/inequalities, graphing, polynomial operations, factoring, rational expressions, systems of linear equations, applications. Credit not counted for graduation. Letter grades not counted in grade point average. Four contact hours. Upon completion of course, a grade of C or higher indicates readiness for enrollment in AD 095.

080-5 College Reading I - This course, where reading is taught as an active process reliant on various techniques, broadens reading background and prepares students for success with academic coursework. Credit will be awarded as AD 080-5. Credit not to be counted for graduation. Letter grade not counted in grade point average. Five contact hours.
082-3 College Reading II - Focuses on strengthening reading comprehension; encourages critical reading. Evaluation of ideas is facilitated by keeping journals, participating in literature groups and practicing effective strategies. Credit not counted for graduation. Letter grades not counted in grade point average. Four contact hours.

090-5 Basic Writing I - Focus on thinking skills and expression of ideas within organized and coherent paragraphs and short essays. Emphasis on sentence skills and college level vocabulary. Credit not to be counted for graduation. Letter grades not counted in GPA. 5 contact hours.

092-3 Basic Writing II — Focus on writing of multi-paragraph essays and development of analytical skills needed to address abstract topics. Credit not to be counted for graduation. Letter grades not counted in grade point average. Four contact hours. Prerequisite: Course placement determined by ACT and writing assessment or grade of C or better in AD 090 or consent of instructor. Exit Criteria to ENG 101: C or better in AD 092 and/or consent of instructor.

095-3 Intermediate Algebra - The course will include the study of polynomials, factoring, rational exponents, linear and quadratic equations/ inequalities, functions, graphing, rational expressions, inequalities, systems of equations, logarithms, geometry, applications. Credit not counted for graduation. Letter grades not counted in grade point average. Five contact hours.
115-2 Study Skills - Improve study behaviors and attitudes through academic goal setting, study systems, note-taking techniques, test taking strategies, time management, classroom communication and problem solving. Two contact hours.

116-2 Reading Speed and Efficiency - Improvement of reading rate and flexibility with emphasis on comprehension, vocabulary, and textbook reading strategies as related to reading efficiency and overall academic performance. Two contact hours. Prerequisite: college-level reading skills.

117-2 Career Planning and Development - Career decisionmaking process investigates self-awareness, career exploration, career information gathering, life styles and job search strategy including development of resumés, interviewing skills and networking techniques. Two contact hours.

\section*{Accounting (ACCT)}

200-3 Fundamentals of Financial Accounting -
Concepts of financial accounting and external reporting.

\section*{Accounting (ACCT)}

Nature and measurement of assets, liabilities, equities, revenues, expenses. Emphasis on use and understanding of external financial statements. Prerequisites: ECON 112 or concurrent enrollment.

210-3 Managerial Accounting - Information accumulation, analysis, and use for managerial decisions. Cost-volume-profit relationships; short- and long-term decisions; standards and budgets; segment and managerial performance evaluation. Open only to non-accounting majors. Credit not acceptable for the Bachelor of Science in Accountancy. Prerequisites: 200 with a grade of C or better, MS 251 with a grade of C or better.
301-3 Intermediate Accounting Theory and Practice IFinancial accounting concepts and procedures; measurement and reporting methods with respect to assets, liabilities, owners equity, revenues and expenses; authoritative pronouncements. Prerequisite: 200 with grade of B or better, accounting, CMIS, economics or finance, business administration majors.

\section*{302-3 Intermediate Accounting Theory and Practice II-} Continuation of 301 . Selected complex accounting issues from a theoretical and practical viewpoint; pensions, leases, tax allocation, changing prices, other reporting and disclosure issues. Prerequisite: 301 with grade of C or better, accounting majors.

303-3 Intermediate Accounting Theory and Practice III Continuation of 302. Emphasis on conceptual understanding and on the ability to apply financial accounting concepts to practice. Topics include the statement of cash flows and accounting for leases, pensions, deferred taxes. Prerequisites: 302 and good standing in accountancy program, or consent of accountancy program director, accounting majors.
311-3 Managerial and Cost Accounting I - Costs for financial accounting and managerial decision making in changing competitive, service, manufacturing environments; behavioral, quantitative, computer applications; extensive communication and analytical skills development.
Prerequisites: 200 with grade of B or better, MS 251 with grade of \(C\) or better, accountancy, economics or finance, CMIS or business administration majors.

312-3 Managerial and Cost Accounting II — Short- and long-term decision making and operational control in changing competitive, service, manufacturing environments; behavioral, quantitative, computer applications; continuation of communication and analytical skills development. Prerequisites: 311 with grade of C or better, accounting majors.

315-3 Accounting Systems - Accounting systems, concepts, design, information needs and flows; special emphasis on internal control. Prerequisites: 200 with grade of B or better, accounting majors.
321-3 Introduction to Taxation - Survey of federal tax laws applicable to individuals, corporations, estates, trusts. Prerequisites: 301 with grade of C or better, accounting majors.
340-3 Business Law for Accountants - Accounting and auditing implications of legal issues. Includes securities laws and Uniform Commercial Code areas of sales; commercial paper; secured transactions; partnerships; corporations; agency; bankruptcy. Prerequisites: 200 with grade of \(B\) or better, accountancy, CMIS, economics or finance, business administration majors.

401-3 Advanced Financial Accounting - Accounting principles, procedures related to special entities, including governmental units, partnerships, and multi-corporate
entities; foreign transactions; primary emphasis on business combinations and consolidated financial statements. Prerequisites: 302 and good standing in Accountancy program, or consent of instructor, accounting majors.
431-3 Principles of Auditing - Auditor's decision process; understanding client's business; development of working papers, audit tests, statistical sampling applications, EDP systems; preparation of audit report, current pronouncements. Prerequisites: 302,315 , good standing in accountancy program, or consent of accountancy program director, accounting majors.
490-1 to 6 Independent Study in Accounting - Topical areas in greater depth than regularly titled courses permit; individual or small group readings or research projects. May be repeated to a maximum of 6 hours provided no topic is repeated. Prerequisites: consent of instructor and department chair person, good standing in accountancy program, accounting majors.

\section*{Aerospace Studies (AS)}

101-102 The Air Force Today - 2 semesters, 2 credit hours This survey course covers topics relating to the Air Force and defense. Note: follow on Leadership Lab is mandatory for AF ROTC military cadets.

201-202 The Air Force Way - 2 semesters, 2 credit hours - This survey course studies the history of aviation and the Air Force. Note: follow on leadership Lab is mandatory for AF ROTC military cadets.

\section*{Professional Officer Courses}

301-302 Air Force Leadership and Management - 2 semesters, 6 credit hours - This course studies leadership and management techniques needed by Air Force officers. Note: Leadership Lab is mandatory for AF ROTC military cadets.

401-402 Preparing for Active Duty - 2 semesters, 6 credit hours - This course covers the responsibilities of a military leader in a democratic society. Note: Leadership Lab is mandatory for AF ROTC military cadets.

\section*{Anthropology (ANTH)}

111a-3 Human Ancestry and Adaptations - [BLS, EGC, INSM] [IAI No. S1 902] An introduction to archaeology and biological anthropology. Examines the evolution and biological adaptations of the human species, and the development of culture through archaeological investigation.
111b-3 Human Culture and Communication - [BSS, EGC, EUSC, IC, ISS, IGR] [IAI No. S1 901N] An introduction to cultural and linguistic anthropology. Examines diversity in life-ways of people around the world. Includes anthropological approaches to social groups, symbolic systems, globalization.
170a-3 Introductory Topics in Biological Anthropology [BLS, INSM, LS]-Significant problems and issues in natural science applications of biological anthropology not treated in other courses, presented at an introductory level. Content varies.
170b-3 Introductory Topics in Anthropology - [BSS, ISS] Significant problems and issues in social science applications of anthropology not treated in other courses, presented at an introductory level. Content varies.

202-3 Anthropology Through Film and Fiction - [BSS, DSS, ELEC, EUSC, IGR] Anthropological issues presented through analysis of feature films, fiction stories, and other
resources. Topics include scientific method, human diversity, cultural relativism, human conflict and cooperation.
205-3 Introduction to Native American Studies [BSS, DSS, EUSC, IGR] - Provides a foundation for Native American Studies by exploring the complexity and diversity of the Native American experience through anthropological, political, historical, and literary perspectives.
270-3 Special Topics in Anthropology - Study Abroad - [BSS, DSS, EGC, IC] Significant problems and issues not treated in on-campus courses. May be repeated to a maximum of 9 hours as long as no topic is repeated.

300-3 Ethnographic Fieldwork - [BSS, DSS, EUSC, IGR] Research design and field methods in cultural and linguistic anthropology with emphasis upon theory, ethics, and hands-on application of fieldwork skills. Prerequisite: anthropology major, senior standing, 111b with C or better, concurrency allowed.

301-3 Ethnographic Analysis - [BSS, DSS, EUSC, IGR, EL] Data analysis and ethnographic writing in cultural and linguistic anthropology emphasizing qualitative and quantitative data manipulation and written and oral presentation of results. Prerequisite: anthropology major, senior standing, 111 b with C or better, concurrency allowed.
302-3 World Music - [BSS, DSS, EGC, IC] A survey of world music traditions, including the music of Europe, North America, Asia, Africa, and Latin America.

303-3 Language, Culture and Power - [BICS, DSS, EUSC, IGR] Introduction to concepts and themes in linguistic anthropology including non-verbal communication and cognition, as well as power relations in multilingualism, gender, race, ethnicity, endangerment and revitalization.
304-3 Symbols and Culture - [BSS, DSS, EGC, EUSC,
IC] Ethnographic approaches to symbolic analysis including interpretation of sensory perceptions, artifacts, cultural use of space, symbolic behavior, the mass media, and issues of representation.
305-3 Peoples and Cultures of Native North America [BSS, DSS, EUSC, IGR] Examines diversity in social, economic, political and religious aspects of the traditional cultures of selected Native American nations and societies.

306-3 Peoples and Cultures of Asia - [BSS, DSS, EGC, IC] History, culture and social organization of selected Asian societies examined through films, narratives, artifacts and ethnographies.

\section*{307-3 Peoples and Cultures of Latin America and the} Caribbean - [BSS, DSS, EGC, IC] Social and cultural aspects of contemporary Mexico, Central America, South America, and the Caribbean in historical and environmental context.
311-3 Peoples and Cultures of the African Diaspora[BSS, DSS, EUSC, IGR] Anthropological perspectives on the culture and identities of people of African descent throughout the globe. Comparative approach and reviews the continuing transmission of culture.
312-3 Contemporary Native Americans - [BSS, DSS, EUSC, IGR] History of unique position within North American society; contemporary issues in economics, politics, law, religion, social life and cultural heritage.
313-3 Women in Cross-Cultural Perspective - [BSS, DSS, EUSC, IGR] (Same as WMST 313) Comparisons of positions, roles, and problems of women in contemporary
cultures from selected world areas and socioeconomic levels. Anthropological perspectives on issues of women's studies.

\section*{315-3 Family and Household in Cross-Cultural}

Perspective - [BSS, DSS, EGC, IC] (Same as WMST 315)
Examines family and household forms in a variety of historical and cultural contexts; explores family experiences through films, narratives and ethnographies.
325-3 Archaeological Method and Theory - [BSS, DSS]
Major historical developments in anthropological archaeology; methods and theoretical approaches to data analysis.
Prerequisite: anthropology major, senior standing, ANTH 111a with a minimum grade of C .

331-3 World Prehistory - [BSS, DSS, EGC, IC] Cultural developments of the Paleolithic through Mesolithic in the Old World and early Native American prehistory.
332-3 Origins of Old World Cities and States - [BSS,DSS, EGC, IC] An overview of the rise of cities and states. Neolithic beginnings to developments in Mesopotamia, Egypt, Indus Valley, China, and Sub-Saharan Africa.
333-3 Origins of New World Cities and States- [BSS, DSS, EGC, II] Origins and development of New World cities and states emphasizing Olmec, Mayan, Teotihuacan, Toltec, Aztec, and Andean cultures. Spanish conquest of Aztecs and Incas.
334-3 Origins of Agriculture - [BLS, DNSM, EGC, IC] Overview of the origins of plant and animal domestication. Covers evidence for independent "invention" and subsequent spread of agriculture in Old World and New World.
335-3 Historical Archaeology - [BSS, DSS] Current methods and theoretical approaches of historical archaeology. Archaeological case studies are used to illustrate the cultural development of historic period groups and communities.

336-3 North American Prehistory - [BSS, DSS, EGC, IC] Survey of North American archaeology, beginning with the arrival of humans in the New World, and ending with the arrival of Europeans ca. 1500.
340-3 Environmental Anthropology - [BSS, DSS, EGC, IC] Surveys the relationship between humans and their environments from an anthropological perspective, including changes through time and cross-cultural comparisons.

350-3 Applied Anthropology - [BSS, DSS, EGC, II] Current issues from anthropological perspective: ethnicity and religious divisions, world hunger, concepts of health and medicine, other uses of anthropology for practical problems.
352-3 Medical Anthropology - [BSS, DSS, EGC, II, IC] Theories and applications of medical anthropology. Crosscultural perspectives on health and medicine.
359-3 Law, Politics and Human Rights in Cross-Cultural
Perspective - [BSS, DSS, EGC, II] A cross-cultural examination of issues in law, politics and human rights around the world.
360A-3 Biological Anthropology Method and Theory - [BLS, DNSM] Current methods and theories in biological anthropology. Includes evolutionary theory, nonhuman primates, human variation, genetics, and paleoanthropology. Must be taken concurrently with 360b. Prerequisite: anthropology major, senior standing, ANTH 111a with minimum grade of C .
360B-1 Biological Anthropology Lab - [BLS, DNSM, EL] Laboratory course that must be taken concurrently with 360A.

Covers human osteology and comparative nonhuman primate material. Prerequisite: ANTH 111a with minimum grade of C.
365-3 Human Origins - [BLS, DNSM, EL] Advanced course on human evolution, focusing on fossil and archeological evidence, and investigating the origins and development of modern human physical and cultural features. Prerequisite: ANTH 111a with a minimum grade of C.
366-3 Biology of Human Behavior - [BLS, DNSM] A critical look at how biology influences human behavior. Topics include gender, communication, and violence, investigated using nonhuman animals as comparative models.

367-3 Primatology - [BLS, DNSM, EL] An overview of humans' closest relatives (prosimians, monkeys, apes). Includes primate anatomy, ecology, social behavior, cognition, and conservation.
369-3 Introduction to Forensic Anthropology - [BLS, DNSM, EL] Introduction to human osteology and anthropological methods, and the relationship to forensics, includes techniques for reconstructing identity, trauma and disease, decomposition and taphonomy.

401-3 The Ethnography of Speaking - [SS] Advanced study of language and culture through analysis of case studies from around the world. Recommended for students intending graduate study in anthropology. Not for graduate credit. Prerequisite: ANTH 301 or consent of instructor.
404-3 Anthropology and the Arts - [BSS, DSS, EGC, IC] Analyzes global cultures' visual and material art forms in museum collections with focus on form, process, meaning, function and value. Prerequisite: junior standing or greater or consent of instructor.
408-3 History of Anthropological Thought - [BHUM, BSS, DSS] Historical development of anthropology. Central ideas and schools of thought. Shifts in theory, method, and problem definition. Prerequisite: junior standing, ANTH 111b with a minimum grade of C .

410-3 Anthropology of Religion - [BSS, DSS, EGC, IC] Anthropological approaches to religion; cross-cultural examination of cosmology, myth, deities, ritual, ritual practitioners, religious transformation, sacred art and altered states of consciousness. Prerequisite: junior standing, ANTH 111 b with a minimum grade of \(C\).

411-3 Urban Anthropology - [BSS, DSS, EGC, II] People in city environments. History of urban development, social and ethnic groups, networks. Comparison of urban areas in Africa, North America, other cultural settings. Not for graduate credit. Prerequisite: ANTH 111b or consent of instructor.
420-3 Museum Anthropology - [BICS, BSS, DSS, EUSC, IGR] 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: junior standing, ANTH 111a or ANTH 111b with a minimum grade of \(C\).
428-3 Primates, Environments, and Conservation [BLS, DNSM] Advanced course on primates, focusing on conservation issues: species' conservation statuses, effects of human sociocultural/economic factors on populations, and effectiveness of various conservation strategies. Not for graduate credit. Prerequisite: ANTH 367.

430-3 Zooarchaeology - [BLS, DNSM] The archaeology of animal remains. Methods and theories for investigating human

\section*{Anthropology (ANTH)}
use of animals in the past. Emphasis on identification of animal bone. Prerequisites: ANTH 111a, 360b.
432-3 Prehistory of Illinois - [BSS, DSS] The history and archaeology of Native Americans in Illinois will include examination of artifacts and artifact casts, and field trips to archaeological sites.

433-3 Geoarchaeology - [DNSM, EL, PS] Field and laboratory methods in geoarchaeology including soil, sediment, and landform analysis. Hands-on examples and research projects on campus and in the lab. Prerequisite: junior standing.
434-3 GIS Applications in Archaeology - [DNSM, EL, PS] Students gain hands-on experience with various geomatics applications in archaeology, including resistivity, magnetometry, 3-D laser scanning, aerial photograph interpretation, and GIS. Prerequisite: junior standing.
435-3 American Material Culture - [BSS, DSS, EUSC] Theories and methods of interpretation applied to artifacts and museum sites that express historic and contemporary American culture, including American ethnic groups. Prerequisite: junior standing.

469-3 Forensic Anthropology Applications - [BLS, DNSM, EL] Combined lecture-lab course on human skeletal material analysis, including training in techniques for identifying sex, age, ancestry, trauma, disease, and taphonomic considerations. Prerequisite: ANTH 369.

470a-3 to 9 Special Topics in Biological Anthropology - [DNSM, LS] Significant problems and issues 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. Not for graduate credit. Prerequisite: ANTH 111a or consent of instructor.

470b-3 to 9 Special Topics in Anthropology - [BSS, DSS] Significant problems and issues 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. Not for graduate credit. Prerequisite: ANTH 111b or consent of instructor.

473-3 Ethnographic Field School - [BSS, DSS] Students participate in an original research project in linguistic or cultural anthropology directed by the instructor; emphasizes field data methods of analysis and write-up. May be repeated for a maximum of 12 hours. Prerequisite: ANTH 111b with C or better.

474-3 or 6 Biological Anthropology Field School - [BLS, DNSM] Research design, data collection and analysis in primatology, skeletal biology, forensic anthropology, or paleoanthropology requiring an independent project or participation in joint project. May be repeated for a maximum of 12 hours. Prerequisite: ANTH 111a with a grade of C or better.
475-3 or 6 Archaeological Field School - [BSS, DSS]
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. May be repeated for a maximum of 12 hours. Prerequisites: ANTH 111a with a grade of C or better.

476-3 Cultural Resource Management - [BSS, DSS] Examination of cultural resource management (CRM) history and laws. Students will gain a practical experience in background research, field survey, evaluation, mitigation,

\section*{Applied Communication Studies (ACS)}
report preparation, and curation. Prerequisite: ANTH 475 with a minimum grade of C .

483-1 to 6 Individual Study in Anthropology - Guided research on anthropological problems supervised by single faculty member chosen by student. Course must be taken concurrently with ANTH 483. Consult chairperson before enrolling. Not for graduate credit.
488-3 to 6 Museum Internship - [SS] Professional experience in aspects of museum work, such as exhibition, interpretation, collections management, or administration. Prerequisite: Permission of instructor.

490-2 Senior Assignment - Application of anthropological knowledge and general education skills to real world problems through research proposal writing and career development activities. Course must be taken concurrently with ANTH 483. Prerequisite: senior standing and Anthropology majors only. ANTH 300, 301, 325, 360A and 360B with minimum grades of C; or consent of Chair. Not for graduate credit.
491-1-3 Senior Project - Completion of independent project mentored by a faculty member; includes formal presentation of results. Course will prepare students for independent research required in graduate school and careers in applied anthropology. Prerequisite: senior standing and Anthropology majors only. ANTH 490 and ANTH 483 with minimum grades of C; or consent of Chair. Not for graduate credit.

\section*{Applied Communication Studies (ACS)}

101-3 Public Speaking - [FSPC, SKOC] (IAI No. C2 900) Theories; strategies; techniques for researching, organizing, outlining, and delivering speeches. Emphasis on speaking skills in professional and academic contexts.

103-3 Interpersonal Communication Skills - [BICS, EUSC, IGR, SKOC] Principles and practices of oral communication emphasizing message formation and delivery, listening, perception, awareness of verbal and nonverbal codes, relationships and managing conflict.
111-3 Introduction to Speech Communication - [BSS, IFAH] Introduction to traditional and current areas of speech communication: intra/interpersonal, group, parliamentary procedure, interviewing, rhetoric and public address, and persuasion. Not for major or minor credit.
200-3 Advanced Public Speaking - [BICS, DFAH, HUM, SKOC] Developing and delivering speeches, presentations, and briefings in corporate and professional settings. Models and strategies for technical presentations and group and business meetings. [Dist. FAH] Prerequisite: ACS 101 or consent of instructor.

201-3 Small Group Communication - [BSS, DFAH] Principles, theories, models, methods of group formation, discussion, and decision-making. Current problems used as focus for exploring group behavior.

\section*{203-3 Introduction to Organizational Communication} - [DFAH, BICS, HUM] Principles, theories, organizational skills necessary to function effectively as professionals. Topics include motivation, goal setting, feedback, delegating, resolving conflicts.
204-3 Oral Argumentation Skills - [BICS, DFAH, HUM] Theories; strategies; techniques for researching, analyzing, constructing, and presenting oral arguments for and against selected contemporary topics and issues. Emphasis on inclass presentations.

\section*{Applied Communication Studies (ACS)}

210-3 Interracial Communication - [BSS, DFAH, EUSC, IGR] Personal dimensions of intergroup communication, especially the interaction of black and white Americans.

213-3 Introduction to Public Relations - [BICS, DFAH, HUM] Contemporary theories and practices emphasizing communication skills. Lectures, PR simulations, guest practitioners. Appropriate for majors in any academic area.
261-3 Oral Interpretation of Literature - [BFPA, DFAH] Principles and skills in selecting, editing and presenting literature in an oral reading format. Prerequisite: ACS 204, or ACS 101, or consent of instructor.
300-3 Communication in Interviewing - [BICS, DFAH, HUM] Forming questions, gathering information, building rapport, maintaining effective interaction in interviews. Emphasizes perspective of both interviewer and interviewee. Practice with critiqued video playbacks.
303-3 Communication Training and Development - [BICS, DFAHJ The study and application of communication training in business. Students will gain practical knowledge in training design, training methods and evaluation, adult learning theory. Development efforts will also be examined. Prerequisite: ACS 203 or consent of instructor.

304-3 Conflict Management and Communication [BICS, DFAH] The study and practice of effective conflict management techniques including mediation, negotiation, and active listening strategies. Highlights the interdependence between communication, conflict, and professional growth.
305-3 Listening - [BICS, DFAH, HUM] Examination of messages from listener perspective, focus is on the listening process, diagnosis of listening difficulties, learning relevant theory and practice of effective listening styles.

\section*{309-1 to 6 Independent Projects in Speech}

Communication - Projects in communication field studies, independent readings, presentations, etc. Specific assignment to be developed by student in consultation with speech communication faculty member prior to enrollment. Credits variable; may be repeated up to a maximum of 6 hours cumulative, 3 of which may count toward a speech communication major. Prerequisite: by permit only.
311-3 Intercultural Communication - [BSS, DFAH, EGC, EUSC, IGR] This course examines the processes, assumptions and barriers in intercultural encounters. Theories of cognition and communication will be explored.
312-3 Public Relations Theory and Application - [BICS, DSS] Advanced study of PR theories and practices introduced in the introduction to public relations course (ACS 213). Focus on approaches proposed by researchers and applied by practitioners, and implications of such approaches. Prerequisite: 213

313-3 Public Relations Writing - [BICS, DFAH, DSS, HUM] Advanced study and application of practices introduced in 213. Emphasis on developing communication materials for PR campaigns. Prerequisites: 213 and concurrent enrollment in 315 .
315-3 Technology Applications in Public Relations [BICS, DFAH, HUM] Study of electronic technologies in public relations practices; planning and evaluative strategies for online public relations; development of competence in use and design of basic desktop and online public relations. Prerequisite: 213 and concurrent enrollment in 313.

323-3 Interpersonal Communication Theory and Applications - [BSS, DFAH] Explores beginning, maintaining and ending relationships. Emphasizes gender, racial and cultural influences, power, self-image and

\section*{Applied Communication Studies (ACS)}
metacommunication. This course contains both theoretical and experiential approaches to personal relationships. Prerequisite: 103.

329-3 Communication Research Methods - [BSS, DFAH] Contemporary methods applicable to analysis of human communication processes. Includes logic of research design and statistical reasoning. Practical experience with communication survey research design. Speech majors must receive a grade of C or better.
330-3 Theories of Communication - [BSS, DFAH] Contemporary and significant historical approaches to developing and testing theories and models of the process of human communication. Speech majors must receive a grade of C or better.
331-3 Gender and Communication - [BSS, DFAH, EUSC, IGR] (Same as WMST 331) Investigation of the influences of gender on the communication process. Activities, exercises and presentations sensitize students to gender influences on verbal and nonverbal communication.

370-3 Health Communication - [BSS, DFAH, EUSC,IGR] Examines the role of communication and culture in general models of health and illness, caregiver-patient relationships, social support, health care systems and health campaigns.
403-3 Organizational Communication Theory and Applications - [BSS, DFAH] Diagnosing communication problems in organizations and implementing solutions. Research methods and theoretical applications in organizational communication. Prerequisite: 203 or consent of instructor.
409-3 Senior Project in Corporate and Organizational Communication - Application of organizational communication theories to service learning project, where students summarize and present their experience to faculty. Not for Graduate Credit. Prerequisites: 200, 329, 330, and 403 with a grade of \(C\) or better in each.
410-3 Rhetorical Theory and Criticism - [BICS, DFAH, HUM] Classical and contemporary theories and methods for analyzing and evaluating public address and other significant forms of communication.
411-3 Analysis of Political Communication - [BICS, DFAH, HUM] Role of communication in politics. Topics include speech preparation, delivery, image promotion, public opinion formation, lobbying behavior as factors in political communication strategies.
413-3 Case Studies in Public Relations - [BICS, DFAH HUM] Strategies and critical analyses of ethical issues and approaches in the social and political atmosphere of public relations. Prerequisite: 213 with grade of C or better or consent of instructor.

\section*{414-3 Public Relations Campaigns: Planning and} Evaluation - [BICS, DFAH, HUM] Research and planning stages of public relations campaigns, leading to development of comprehensive public relations campaign proposals and formal presentations to clients. This course requires subsequent enrollment in SPC 415. This course fulfills part of the Senior Project requirement for Public Relations track. Prerequisites: \(313,315,329\).
415-3 Public Relations Campaigns: Programming and Implementation - Implementation and evaluation stages of public relations campaign, culminating with organization of special event and formal presentations to faculty. This course requires previous enrollment in SPC 414. This course fulfills part of the Senior Project requirement for Public Relations track. Prerequisites: \(200,315,413\), and 414 with a grade of \(D\)

\section*{Applied Communication Studies (ACS)}
or better in each, and 313 with B or higher, and 329 with aC or better to proceed in track.

\section*{419-3 Special Topics in Speech Communication -} [DFAH, HUM] 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 a speech major. Contact the Speech Communication Department for current topic.

421-3 Computer Mediated Communication - [BICS, DFAH] Focuses on characteristics of CMC and how CMC functions in various contexts with the intention to familiarize with several concepts and theories. Prerequisite: 330 with a minimum grade of C .

422-3 Family Communication - [BSS, DFAH, HUM] Communication functions and behavior within families and how they develop, maintain, enrich, or limit family relationships. Prerequisite: 330 with a minimum grade of \(C\)
423-3 Topics in Interpersonal Communication - [BSS, DFAH] Rotating topic course addressing current topics in interpersonal communication. May be repeated for a total of 9 hours as long as no topic is repeated.

\section*{424-3 Senior Project in Interpersonal Communication -} Designed for students in the interpersonal communication track. Students conduct an original investigation of an interpersonal communication phenomenon individually or as a group. Not for Graduate Credit. Prerequisites: 201, 323, 329, 330, 421, 422, and 434 (200 can be concurrent).
430-3 Persuasion and Social Influence - [BICS, DFAH, HUM] 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.
431-3 Public Relations Visual Communication - [BICS, DFAH] 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.
432-3 Social Media for Public Relations - [BICS, DFAH] Social Media use and measurement in Public Relations campaigns.
433-3 Language and Speech Communication - [DFAH, HUM, BICS] Role and impact of language in speech communication development, processes and behavior. Relational development and conflict resulting from differences in language usage.
434-3 Nonverbal Communication - [DFAH, HUM, BICS] Nonverbal theories across varied contexts. Means of transmission and reception of nonverbal cues. Relationship of nonverbal and verbal behavior.

461-3 Strategies for Teaching Speech Communication Philosophy of speech education and approaches for teaching speech in curricular and co-curricular settings. Meets for 5 hours. Not for graduate credit. Prerequisite: 12 hours of speech communication or consent of instructor.
491-1 to 9 Internship in Speech Communication - Study, observation, and professional experience with business and organizations in the various areas of communication under joint supervision of the organizational representative and the speech communication faculty sponsor. May be repeated to a maximum of 9 hours, 3 of which may count toward a speech communication major. Not for graduate credit. Prerequisites: junior or senior standing, a major in speech communication, consent of the director of internships, acceptance by the organizational representative.

\section*{Arabic (ARA)}

101-4 Elementary Arabic I - [BICS, FL, SKFL] Listening, speaking, reading, and writing. Culture of Arabic-speaking countries. Lab included.

102-4 Elementary Arabic II - [BICS, EGC, FL, IC, SKFL] Continuation of 101. Lab included.

201-4 Intermediate Arabic I — [BICS, DFAH] Continued practice in listening, speaking, reading, and writing. Grammar review. Cultural and literary readings, compositions. Lab included. Prerequisite: ARA 102 or permission of instructor.
202-4 Intermediate Arabic II — [BICS, DFAH] Continuation of 201. Lab included. Prerequisite: ARA 201 or permission of instructor.

\section*{Art and Design (ART)}

111-3 Introduction to Art - [BFPA, IFAH] Visual arts: painting, sculpture, architecture, related media. Intended to cultivate discrimination in viewing and understanding works of art. Not for art major credit.
112a-d, 3 each Foundation Studio - (a) Drawing I: Basic approaches to drawing, introducing variety of media and subject matter; (b) Visual Organization I: Two dimensions, color; (c) Drawing II: Further development and study of drawing techniques and media investigations, with additional emphasis on concepts and composition; (d) Visual Organization II: Threedimensions. Prerequisite: c)112a; d)112b.
202a-i, 3 each Introduction to Studio - Need not be taken in sequence. a Sculpture: Welding, casting, wood construction. Prerequisites: 112c,d with C or better, (concurrent enrollment allowed with Art 112c) or consent of advisor. b Printmaking: [FPA] Introduction to relief, intaglio, and monotype printmaking techniques. Prerequisites: ART 112a and 112b with a minimum grade of C. c Ceramics: [BFPA, DFAH] Glazing, firing d Painting: Oils. Prerequisites: 112c,d with C or better, (concurrent enrollment allowed with 112d) or consent of advisor. e Drawing: Composition, figure. Prerequisites: 112c,d with C or better, (concurrent enrollment allowed with 112d) or consent of advisor. f Weaving/Textiles: Off-loom, dying, fibers. Prerequisites: 112a,b,c,d with C or better (concurrent enrollment allowed with 112c and 112d) or consent of advisor. g Metalsmithing: Aesthetic and technical pursuits of contemporary jewelry and metalsmithing at beginning level. Prerequisite: \(112 \mathrm{c}, \mathrm{d}\) with C or better (concurrent enrollment allowed with Art 112c) or consent of advisor. h Introduction to Digital Photography: [BFPA, DFAH] Basic digital photography, including theory and practice: photographic vision, camera controls, digital editing and printing. Required: a working SLR digital camera with manual controls. i Graphic Design: [DFAH, FPA] Introduction to visual communication problem-solving skills. Exercises: principles of perception, typographic usage, and visual hierarchy. Combines traditional hand skills with basic computer skills. Prerequisites: \(112 \mathrm{~b}, \mathrm{c}, \mathrm{d}\) with C or better (concurrent enrollment allowed with 112 c and 112d) or consent of advisor.

225a,b-3 each History of World Art - [BFPA, DFAH, EGC, IC] Major periods and styles. (a) (IAI No. F2 901) From prehistory through the Renaissance; (b) (IAI No. F2 902) From Mannerism to the present. Open to all students.
289-3 Practicum in Art Education — Introduction to Art Education. Readings, discussions, observations, and involvement with children and adults in selected meetings. Clinical experience required. Prerequisite: second-semester freshman.

300a,b-3 each Art Education in Elementary SchoolsObjectives, theory, and practices of teaching grades K-6. (a) Study of developmental stages, emphasis on media and strategies for implementing activities K-6; (b) Emphasis on teaching art from elementary art specialist perspective; developing units of instruction and teaching methodology. Prerequisite: Art 289 with a grade of C or higher or consent of instructor.
302a-3 Intermediate Digital Photography: Color Intermediate level digital photography, photographic vision, camera controls, digital editing and printing in a color format. Required: a working SLR digital camera with manual controls. Prerequisites: \(112 \mathrm{c}, \mathrm{d}\) and 202 h with grades of C or better (concurrent enrollment allowed with 112c and 112d) or consent of advisor.
302b-3 Intermediate Digital Photography: Black and White - Intermediate level digital photography: photographic vision, camera controls, digital editing and printing in a gray scale format. Required: a working SLR digital camera with manual controls. Prerequisites: \(112 \mathrm{~b}, \mathrm{c}, \mathrm{d}\) and 202 h with grades of C or better (concurrent enrollment allowed with 112b and 112c) or consent of the instructor.

305-3 to 6 Ceramics - Intermediate study incorporating ceramic wheel work and additional areas of aesthetic and technical development. May be repeated for a maximum of 9 hours. Consent of instructor necessary to take more than 3 hours per semester. Prerequisites: 112c,d, and 202c with grades of C or better (concurrent enrollment allowed with 112c and 112d) or consent of advisor.
310a-3 to 6 Painting Methods - Intermediate painting course using a series format to explore a variety of expressive modes. Includes media experimentation. May be repeated up to 6 credit hours. Prerequisite: 202d with a grade of C or better.
310b-3 to 6 Figure Painting - Intermediate painting course that introduces the human figure as subject. Expressive and formal uses of the figure in art history will be studied and applied on a personal and group basis. May be repeated up to 6 credit hours. Prerequisites: 202d,e with grades of \(C\) or better.
310c-3 Painting Topics - An intermediate painting course offered to cover a rotation of topics not traditionally offered such as aqueous media, plein-air painting and large format painting. Prerequisites: 202d,e with grades of \(C\) or better.
311-3 Typography - Examines technological, and theoretical aspects of typography. Organizational and creative aspects of designing with type are explored through a variety of visual problem-solving activities and projects. Prerequisite: 202 with a grade of \(C\) or better or consent of instructor.
312-3 Graphic Design II - Intermediate desktop design and publishing; electronic typography, pagination and illustration; symbol, logo, poster and publication design; computer imaging. Prerequisite: 202i with a grade of C or better or consent of instructor.
325-3 to 6 Studio I - Independent study with one or more faculty members. No more than 3 hours per semester without written approval. May be repeated for a maximum of 9 hours. Prerequisite: 6 hours of chosen medium or consent of advisor.
331-a-b 3 to 6 Advanced Drawing - Technical and conceptual study of the human figure and other subject matter. a) figure in context, b) development in series Prerequisite: 202 e with a grade of C or better.

358-3 Relief Printing Processes - Includes traditional and experimental methods with woodcut, linocut, monoprint,
various materials, color techniques. Prerequisite: 202b with a grade of C or better.
359-3 Intaglio Processes - Hard and soft-ground etching, lift grounds, relief etching, engraving, drypoint, aquatint, collagraphs, color techniques. Prerequisite: 202b with a grade of \(C\) or better.

360-3 Engraving and Unique Processes - Course concentrates on relief and intaglio styles of engraving. Other unique processes, including chin colle and printing with a Vandercook press are taught. Prerequisite: 202b with a minimum grade of C or better. No concurrency.

\section*{364-3 Curriculum Development in Elementary and} Secondary Art Education - Curricular models used in art education; construction of sample art curriculum for given levels. Prerequisites: 289 and junior standing or consent of instructor.

365-3 Art Education in the Secondary School - Teaching methodology for secondary art programs. Reading, discussion, planning art teaching. Emphasis on studio art and art appreciation. Clinical experience at selected secondary school. Prerequisite: 289 or consent of instructor.

384a-c-3 to 6 Fibers - Techniques and aesthetic concerns in papermaking, feltmaking, dyeing, surface design, weaving, basketry. a) weaving, b) surface design, c) textiles, special topics Prerequisite: 202 f with a grade of C or better.
386a-c-3 to 6 Metalsmithing II - Advanced metal fabrication. a) metal casting and fabrication, b) metal forming and fabrication, c) color on metal and fabrication. Prerequisite: 202 g with a grade of C or better.
393a-c-3 each Sculpture - Exploration of contemporary sculpture making with emphasis on development of techniques and ideas. a) modeled form, b) cast form, c) assembled form. Prerequisite: 202a with a grade of \(C\) or better.

401-3 to 6 Research in Painting - Advanced problems in painting. May be repeated to a maximum of 9 hours. Prerequisites: \(310 \mathrm{a}, \mathrm{b}\) with grades of C or better or consent of advisor. Art majors only.
402-3 to 9 Research in Sculpture - Exploration of current trends in sculpture-making, with emphasis on interaction of technique and idea. May be repeated to a maximum of 12 hours. Prerequisites: 393 a and, 393b, or 393 c with grades of C or better or consent of advisor. Art majors only.
405-3 Seminar - 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: 75 or more hours. Art majors only.
408a-c-3 each Art Education for Elementary Teachers - (a) Art education for disabled students. (b) Development of motivational and instructional materials; (c) Advanced materials and methods for classroom teacher. Prerequisite: 300a, student teaching, or consent of instructor.

410-2 to 6 Research in Printmaking — 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. Prerequisite: 358, 359 or 360 with grades of C or better. Art majors only.
412-3 Research in Graphic Design — 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.
413-3 Digital Arts - Exploration of computer-based imagecapture and manipulation focusing on the integration of digital images with traditional studio arts and/ or electronic media applications. May be repeated up to 9 hours. Prerequisites: 302a or 312 or consent of instructor. Art majors only.
414-3 Graphic Design History Through Studio Projects History of visual communication, including historic movements in Graphic Design and Advertising. Coursework combines lecture materials, quizzes, readings, and research into student projects. Prerequisite: 225 a or 225 b, and 311 and 312 , with a minimum grade of C or better, or graduate standing or consent of instructor.

\section*{415-3 Visual Identity: Logo and Branding Design -}

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. Prerequisite: 311 and 312 , with a minimum grade of C or better, or graduate standing or consent of instructor.
416-3 to 6 Glassworking - 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. Prerequisite: consent of instructor or advisor. Art majors only.
420-3 to 6 Advanced Ceramics - Supervised research in specific ceramic areas of technical and aesthetic interests. May be repeated for a maximum of 9 hours. Prerequisite: 3059 or consent of advisor. Art majors only.

422-3 Research in Photography — Advanced theory and practice in one of several topics: alternative non-silver processes; large format camera/zone system; artificial lighting. May be repeated to a maximum of 9 hours. Prerequisites: 302a and b or consent of advisor. Art majors only.
423-3 Advanced Photography Seminar - Advanced seminar exploring personal portfolio development, contemporary theoretical and conceptual issues, as well as developing critical writing skills as they pertain to the photography medium. May be repeated for maximum of 9 credit hours. Prerequisite: 302a or 302b or consent of advisor.
424-3 each Baroque Art - [DFAH, EGC, FPA, IC] Major developments in Baroque painting, sculpture, and architecture in seventeenth-century Italy, Spain, France, Flanders, and the Dutch Republic. Prerequisites: 225b with grade of C or better, or consent of instructor.
426-3 Senior Studio Assignment - Varied content; group and/or individually designed Senior Assignment Projects which may include travel, exhibition, research or other approved project. Prerequisite: consent of advisor. Art majors only.
430-3 to 6 Studies in Art I - Advanced work in any studio area or art education. May be repeated to a maximum of 9 hours. Students may enroll for no more than 3 hours per semester without written approval. Prerequisite: consent of advisor. Art majors only.
440-3 Publication and Information Design - 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.

441-3 to 6 Research in Drawing — Advanced research drawing experiences emphasizing individually realized content through development of compositions. May be repeated to a maximum of 12 hours. Prerequisite: 331 with a grade of C or better, or consent of advisor. Art majors only.
447a,b-3 each Ancient Art — [DFAH, EGC, FPA, IC] Art and architecture from prehistory through Rome. (a) Prehistoric to Greek late archaic; (b) Greek high Classic to Rome. Prerequisite: 225 a with a grade of C or better, or consent of instructor.

448-3 each Early Christian and Medieval Art - [DFAH, EGC,FPA, IC] Visual Arts of the Early Christian and Medieval periods from the 4th century through Romanesque and Gothic. Prerequisite: 225a with grade of C or better, or consent of instructor.
449-3 Italian Renaissance Art - [DFAH, EGC, FPA, IC] Architecture, sculpture, and painting of the Late Gothic, Renaissance, and Mannerist periods in Italy. Prerequisites: 225 with grades of \(C\) or better, or consent of instructor.
450-3 Early Childhood Art Education - Art Education practices in early childhood art education. Methods and materials based on developmental needs. Prerequisite: 300a or consent of instructor.

451-3 Northern Renaissance Art - [DFAH, EGC, FPA, IC] Architecture, sculpture, and painting of the Renaissance and Mannerist periods in Northern Europe. Prerequisites: 225a,b with grades of \(C\) or better, or consent of instructor.
452-3 Art Education for Older Adults - Physical, artistic, and creative development of older adults. Development of specific instructional approaches for older learners. Prerequisite: senior status.

453-3 Introduction to Museology — [DFAH, FPA] Museum ethics, collections policies, security, administration and organization, public law, sources of funding, grant preparation.
Not for art history credit. Prerequisite: junior standing or consent of instructor.
454-3 Curatorship: Exhibition Management and Design - [DFAH, FPA] Exhibition design, preparation, labeling, security, hanging and display techniques and construction, lighting, traffic flow, docent training. Not for art history credit. Prerequisite: 453.
455-3 Documentation of Collections - [DFAH, FPA] Accessioning and deaccessioning processes, research, collection management, use of computers, narrative, photodocumentation. Not for art history credit. Prerequisite: 453.
467-3 Islamic Art and Architecture - [DFAH, FPA, IC] Architecture, sculpture, and painting of the Late Gothic, Renaissance, and Mannerist periods in Italy. Prerequisites: \(225 a, b\) with grade of \(C\) or better.

468a,b-3 Native Arts of the Americas - [DFAH, EGC, FPA, IC], Arts of indigenous societies of the Americas presented in cultural and geographical sequence, ancient to 19th century a) pre-Columbian art; b) North America. Prerequisites: 225a,b with grades of C or better or consent of instructor.
469a,b-3 each Primitive Art: Africa and Oceania - [DFAH, EGC, FPA, IC] Arts of indigenous societies of sub- Saharan Africa and of Oceania: Polynesia, Micronesia, and Melanesia, presented in cultural and geographical sequence. (a) Africa; (b) Oceania. Prerequisites: \(225 \mathrm{a}, \mathrm{b}\) with grades of C or better or consent of instructor.

470-3 Topics in Art History - [DFAH, FPA] Topics may include: seminars on specific artist or area; investigations of

\section*{Art and Design (ART)}
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. Prerequisites: \(225 a, b\) with grades of C or better or graduate standing.
471-3 Topics in Early Modern Art — [DFAH, FPA] Variable content course in the history of Renaissance and Baroque Art. May be repeated to a maximum of 9 hours as long as no topic is repeated. Prerequisites: 225 b with grade of C or better or consent of instructor.

472-3 Topics in Modern Art - [DFAH, FPA] Variable content course in the history of Modern Art. May be repeated to a maximum of 9 hours as long as no topic is repeated. Prerequisites: 225b with grade of Corbetter or consent of instructor.
473-3 Women in Art - [DFAH, FPA,] History of women artists from the Renaissance to the present. Prerequisites: 225 b with grade of C or better or consent of instructor.
474-3 Topics in Public Art — [DFAH, FPA,] Variable content course in the history of Public Art. May be repeated to a maximum of 9 hours as long as no topic is repeated. Prerequisites: 225a,b with grades of C or better or consent of instructor.

475-3 History of Photography - [DFAH, FPA] Principal technical and stylistic developments in photography from the early 19th century to the present. Prerequisites: 225a with grades of C or better or graduate standing.

\section*{476-3 History of Modern Architecture and Design -} [DFAH, FPA] Principal technical and stylistic developments in architecture and design from the early 19th century to the present. Prerequisite: 225 b with a grade of C or better or graduate standing.

480-3 American Art - [DFAH, FPA] Survey of the history of art in the U.S. from the Colonial period to the present day. Prerequisite: 225 b with a grade of C or better.

481-3 Modern Art - [DFAH, FPA] Principle movements and theories of art in the modern period. Prerequisite: ART 225b with a grade of C or better or consent of instructor.

482-3 Contemporary Art - [DFAH, FPA] Principle movements and theories of contemporary art, ca. 1950 to the present. Prerequisite: ART 225b with a grade of C or better or consent of instructor.
483-3 Research in Art History - [DFAH, FPA] 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. Prerequisites: 225a,b with grades of \(C\) or better or consent of instructor.
484-3 to 6 Research in Fibers - Individual exploration of advanced fiber concerns in technique and mixed media approaches. Concepts emphasizing integration of technical and aesthetic idea. May be repeated to a maximum of 12 hours. Consent of instructor for over 3 hours per semester. Prerequisite: 384 with a grade of C or better or consent of advisor. Art majors only.
486-2 to 6 Research in Metalsmithing - Concentrated research in advanced metalsmithing techniques and concepts. May be repeated to a maximum of 12 hours. Prerequisite: 386 with a grade of C or better, or consent of advisor. Art majors only.
498-3 to 6 Internship in the Arts - Involvement in work, study, or research designed and supervised by selected faculty members and cooperating institutions. May be repeated for a maximum of 9 hours. Prerequisite: consent of advisor. Art majors only.

\section*{Biological Sciences (BIOL)}

499-3 Senior Thesis Exhibition - Nature of final thesis determined according to student's major studio area and directed by student's major advisor and committee. Consists of thesis exhibition and written statement of artistic intent. B.F.A candidates only. Prerequisite: senior standing. Art majors only.

\section*{Biological Sciences (BIOL)}

111-3 Contemporary Biology - [BLS, INSM] [IAI No. L1 900] Contributions of biology to understanding ourselves and our world. Development, nature and human implications of cell theory, heredity, the modern synthetic theory of evolution, population dynamics, ecology and environmental problems.
140-3 Human Biology - [BLS, INSM] [IAI No. L1 904] Introduction and application of basic human biology concepts, including cell theory, genetics, systems biology, and evolution. Not for credit for Biological Sciences majors.
150-4 Introduction to Biological Sciences I- [BLS, EL, INSM, LNSM] [IAI No. L1 900L] First of a two-course sequence, introduction to biochemistry, molecular genetics, cell structure and function, and evolution. Lab required. Prerequisites: CHEM 121a and CHEM 125a with grades of C or better.
151-4 Introduction to Biological Sciences II - [BLS, EL, INSM, LNSM] Second of a two-course sequence, introduction to major taxonomic groups, with emphasis on evolutionary relationships and ecological principles. Lab required. Prerequisites: BIOL 150, CHEM 121b and CHEM 125b with grades of C or better.
203-3 Human Sexuality and Reproduction - [BLS, DNSM, EH] Sexual anatomy and physiology, normal and abnormal embryonic and fetal development, pregnancy and birth, birth control, sexual relationships, attitudes, behavior, sexual diseases and disorders. Prerequisite: 111 or 150 or 151 with a C or better or equivalent.
204-3 Biotechnology and Society - [BLS, DNSM, EGC, III An overview of biotechnology, including basic molecular biology, genetic engineering, transgenic organisms, the human genome. Discuss applications and concerns at a national and global level. Prerequisites: 111 or 150 or 151 with a grade of \(C\) or better.

205-3 Human Diseases - [BLS, DNSM, EH] A molecular, cellular, organismic or environmental approach to the human body and its dysfunctions, disorders and diseases including their causes, treatments and recent biomedical advances. Prerequisite: 111 or 150 or 151 with a grade of C or better.
220-4 Genetics - [BLS, DNSM, EL, LNSM] Mechanisms of inheritance: identification, transmission, distribution, arrangement, change and structure, function of genetic material, genetic diversity in populations. Three lectures and one laboratory per week. Prerequisites: 150 and 151 with grades of C or better, and concurrent enrollment in or completion of one semester of organic chemistry (241a or equivalent).

240a,b-4 each Human Anatomy and Physiology - [BLS, EL, LNSM] [(a) INSM] [ IAI No. L1 904L] [(b) DNSM] Functional architecture of the human body. (a) Tissues, skeletal, muscular, and nervous systems; (b) Continuation of (a), Endocrine, Circulatory, Respiratory, Digestive, and Urinary systems. Three hours lecture, one three-hour laboratory per week. Not for major credit. Prerequisites: (a) 150 or 151 or 140 with a grade of \(C\) or better and CHEM 120a or 120n or 121a with a grade of \(C\) or better or consent of instructor. (b) 240a with a grade of C or better.

250-4 Bacteriology - [DNSM, EL, LS] Structure, nutrition, and genetics of bacteria; control of microbial growth; comparison of medically important bacteria and viruses; host response to infectious disease. Three hours lecture and one lab period per week. May not take if previously received credit for BIOL 350 or equivalent. Prerequisites: 111,140 , or 150 and CHEM 120n, 121a, or 241a with grades of \(C\) or better or equivalent.
319-4 Cell and Molecular Biology - [DNSM, EL LS] Basic biological chemistry as related to cellular function. Introduction to the structure and function of macromolecule. Differentiation between eukaryotes and prokaryotes. Three lectures and one lab per week. Prerequisites: 150, 151, 220, and CHEM 241A with grades of C or better.
321-4 Plant Biology — [DNSM, EL, LS] A comprehensive laboriented course in plant biology. Two laboratories, two lectures. Prerequisites: BIOL 150 and 151 with grades of C or better, or consent of instructor.
327-3 Evolution - [DNSM, LS] Evolutionary change as shown in heredity, population genetics, speciation, adaptation, natural selection, development, behavior, geographical distribution, the origin of life. Three lecture hours per week. Prerequisites: 150, 151, and 220 with grades of \(C\) or better.
330-3 Environmental Health and Waste Management [DNSM, EGC, II, LS] (same as ENSC 330) Introduction to human health effects of pollution and environmental hazards of a biological, radiological, or physical nature in food, water, air, soil, animals, and wastes. Prerequisite: 111 and CHEM 111 or BIOL 150; or equivalent(s) or consent of instructor.
332-3 Basic Biochemistry - [DNSM, LS] Relation between structure and function of biologically important macromolecules. Nucleic acids, proteins, carbohydrates. Emphasis on regulation of metabolism, biosynthesis, degradation. Three lecture hours per week. Prerequisite: CHEM 241 b with a grade of C or better (BIOL 319 is recommended).
335-3 Introduction to Immunology - [DNSM, LS] Anatomical, cellular, and biochemical aspects of the immune response. Immune mechanisms in transplantation, infectious disease, autoimmune disease. Prerequisites: 220 with a grade of \(C\) or better or consent of instructor.
337-4 Animal Histology - [DNSM, EL, LS] The structure and function of vertebrate tissues as portrayed by major histological methods. Two hours lecture, one-hour demonstration lecture, two laboratory hours per week. Prerequisites: 220 with a grade of \(C\) or better.
340-4 Physiology — [DNSM, EL, LS] Function and regulation of major organ systems in vertebrates, neural responsiveness and integration, homeostasis of body fluids, circulation, respiration, organic maintenance, and hormonal control. Three hours lecture and three laboratory hours per week. Prerequisites: BIOL 319 and PHYS 131b with grades of C or better, and overall GPA of 3.0.
350-4 Microbiology - [DNSM, EL, LS] Structure, metabolism, and genetics of bacteria and bacteriophages. Role of bacteria in disease, biotechnology, and the environment. Prerequisites: 150, 151, 220 and CHEM 121b with grades of C or better.
365-4 Ecology — [DNSM, EGC, EL, II, LS] Scope of ecology, population ecology, models of population growth, competition, predation, diversity and stability of ecosystems, community structure, ecological energetics. Three hours of lecture and

1 hour laboratory per week. Prerequisites: 150 and 151 with grades of C or better
371-3 Plants and Civilization - [DNSM, EGC, IC, II, LS] A multidisciplinary introduction to the basic principles of plant science with a strong emphasis on the economic aspects and cultural importance of plants. Prerequisites: 151 with a grade of \(C\) or better or consent of instructor.
380-4 Invertebrate Biology - [DNSM, EL, LS] Discussion of the major phlya of marine and freshwater invertebrates focusing on structure, function, development, evolutionary relationships, and ecological adaptations. 3 hours lecture and 3 hours laboratory per week. Prerequisites: 150, 151 with grades of C or better or consent of instructor.
415-4 Laboratory in Animal Cell and Tissue Culture [DNSM, EL, LS] Theory and techniques of culture growth, differentiation, metabolism and transformation. Two lectures and two labs per week. Prerequisite: BIOL 150, 151, and 220 with grades of C or better, or instructor consent.
416-4 Techniques in Plant Cell and Tissue Culture -
[DNSM, EL, LS] Theory and techniques of culture growth, differentiation, metabolism and transformation. Two lectures and two labs per week. Prerequisite: BIOL 150, 151, 220 with grades of \(C\) or better, or consent of instructor.
417-4 Quantitative Methods in Experimental Biology - [LS] Selection and application of statistical techniques appropriate for biological data. Practical experience using spreadsheets and statistical software. Prerequisites: 150 and 151 with a grade of C or better or consent of instructor.
418a-3 Recombinant DNA - [DNSM, LS] Basic principles of gene cloning including the methods of creating recombinant DNA molecules, transfer of genes into recipient cells, regulation following gene transfer. Three hours lecture per week. Not for graduate credit. Prerequisites: 220 and 319 with grades of C or better.
418b-3 Recombinant DNA Laboratory — [DNSM, EL, LS] Experiments in gene manipulation using bacterial genes exempt from federal guidelines concerning recombinant DNA. Six laboratory hours per week. Not for graduate credit. Prerequisite: 418 a with a grade of C or better and consent of instructor.
421-3 Human Genetics - [DNSM, LS] Human genetics, human chromosomes; Mendelian characters in man, genetic inference, pedigrees, twins, mutation, genetics and medicine. Prerequisites: 220 with a grade of \(C\) or better.
422a-3 Population Genetics - [LS] Unites the fields of molecular genetics and evolutionary biology to explore processes and mechanisms of evolutionary change; provides a theoretical basis for interpreting molecular variation. Prerequisites: 220, 319 and 327 with grades of \(C\) or better.
422b-1 Population Genetics Lab - [LS] Molecular and analytical techniques commonly employed in basic and applied fields of population genetics. Requires concurrent enrollment in BIOL 422a. Prerequisites: 220, 319, and 327 with grades of C or better.
423-3 Forensic Biology - [LS] Principles of human anatomy and physiology, population and molecular genetics, botany, entomology are reviewed in the context of their applications to legal contexts. Prerequisite: BIOL 220 with a grade of C or better, or consent of instructor.

\section*{Biological Sciences (BIOL)}

425-3 Developmental Biology - [LS] Embryonic and postembryonic developmental processes in animals. Topics include: fertilization, morphogenesis, pattern formation and the cellular control of these events. Prerequisites: 220 and 319 with grades of C or better.
430a,b-3 each Biochemistry and Molecular Biology - [DNSM, LS] (a) Structures and functions of protein, carbohydrates and lipids; (b) Control of metabolism; structures and functions of nucleic acids in the control of protein synthesis. Must be taken in sequence. Not for graduate credit. Prerequisites: 220 and CHEM 241 with grades of C or better.

431-3 Cellular and Molecular Basis of Disease - [LS] Causes and pathophysiology of diseases presented from the cellular and molecular levels. Prerequisites: 319 with grade of C or better.
432-4 Advanced Cell Biology - [DNSM, LS] Analysis of advanced topics in cell and molecular biology. Emphasis on laboratory projects and current literature with supporting lectures. Not for graduate credit. Prerequisite: BIOL 319 with a grade of C or better, or instructor consent.

433-3 Biomembranes - [DNSM, LS] Structural organization of biological membranes. Dynamic properties as studied by biophysical techniques. Selected topics of membrane functions related to structural organization. Not for graduate credit. Prerequisites: 332 and 430 with grades of C or better.
434-3 Fundamentals of Aquatic Ecotox - [LS] 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. Not for graduate credit. Prerequisites: ENSC 220 \& ENSC 330 or BIOL 319 or 365 or CHEM 471.

435-3 Ecological Risk Assessment - [DNSM, LS] 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: 330 or 465 or ENSC 330 or ENSC 531 or CHEM 471.
436-3 Fundamentals of Molecular Toxicology \& Pharmacology -[LS] Molecular, biochemical, and cellular mechanisms of toxicity, mode of action, metabolism, and interactions of environmental pollutants, toxic chemicals, and drugs. Not for graduate credit.. Prerequisites: ENSC 220 \& ENSC 330 or BIOL 319 or CHEM 471 .

440-4 Functional Human Anatomy - [BLS, DNSM, EL] Systematic and regional study of the human body, including thorax, abdomen, pelvis, back, limbs, head, neck, emphasizing structural, functional and clinical relationships within each region. Prerequisites: BIOL 220 with a grade of C or better, or consent of instructor.

441-3 Advanced Physiology - [DNSM, LS] Energy procurement and balance, intermediate metabolism, temperature control, advanced topics of cardiovascular and respiratory mechanisms; body fluid regulation, and some environmental adaptations. Prerequisites: 340 , CHEM 241 with grades of C or better.
444a-3 Fundamentals of Neuroscience - [DNSM, LS] Integration of cellular and molecular biology, neuroanatomy, neurophysiology in nervous system function and control of behavior. Current mechanisms of learning, memory, drug actions, motor control. Not for graduate credit. Prerequisite: BIOL 319 with a grade of C or better, or instructor consent.

\section*{Biological Sciences (BIOL)}

444b-1 Fundamentals of Neuroscience Laboratory - [LS] Neuroscience experiments including molecular neurobiology, electrical recording, drug reactions, brain dissection, and/or histology. Prerequisite: BIOL 444a or concurrent enrollment, or consent of instructor.

451-3 Microbial Pathogenesis - [DNSM, LS] Analysis of the mechanisms of pathogenesis employed by bacteria, fungi, protozoa and viruses, including discussion of transmission, invasion, colonization, virulence factors, pathology, epidemiology, and treatment. Not for graduate credit. Prerequisite: 350 with a grade of C or better.
452-3 Molecular Genetics - [DNSM, LS] Molecular basis of genetics in both prokaryotes and eukaryotes, including structure and replication of DNA, gene expression, transfer of genetic material between organisms. Not for graduate credit. Prerequisites: 220, 319 with grades of C or better.
455-3 Virology — [DNSM, LS] Biochemical and physical structure of viruses and their mode of replication in infected cells, including latency and viral oncogenesis. Not for graduate credit. Prerequisites: BIOL 350, 332 or 430 or CHEM 241 with grades of \(C\) or better.

456-4 Principles of Biophysics - [DNSM, EL]
Interdisciplinary approach to biophysics for students in biology, chemistry, and bioengineering. Weekly labs will include a variety of guest scientists demonstrating biophysical applications. Prerequisites: PHYS 131a,b and MATH 150 or instructor consent.
460-3 Wildlife Management - [DNSM, LS] Wildlife ecology, conservation, and management including effects of habitat, behavior, disease, and predation on populations. Optional field trips. Prerequisites: BIOL 365 with a grade of C or better.
461-4 Plants and Environment - [DNSM, LS]
Environmental effects on plant growth, reproduction and distribution. Adaptive responses to environmental stress examined and measured. Three lecture/ laboratories per week for 6 weeks. Course taught only in summer. Not for graduate credit. Prerequisites: BIOL 151 with a grade of C or better or consent of instructor.

461a-3 Biophysical Chemistry 1 - [DNSM, LS] Examination of biophysical chemistry principles of thermodynamics and kinetics and the understanding of biological systems using physical chemistry. Not for graduate credit. Prerequisites: BIOL 151 with a grade of \(C\) or better or consent of instructor.
462-3 Biogeography - [DNSM, LS] Past and present spatial relationship of plants and animals. Speciation, dispersal and variation are addressed. Not for graduate credit. Prerequisite: 365 with a grade of C or better.

463-4 Conservation Biology - [LS] 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. Prerequisite: BIOL 365 with grade of Cor better, or instructor consent.

464-3 Applied Ecology - [DNSM, LS] Examination of the mechanisms, directions, and magnitude of an organism's or ecosystem's response to human perturbation. Not for graduate credit. Prerequisite: 365 with a grade of C or better or consent of instructor.
465-4 Aquatic Ecosystems - [DNSM, EL, LS] (same as ENSC 465) Biogeochemistry and community structure of aquatic Systems. Three lectures, one three-hour lab per week.

\section*{Biological Sciences (BIOL)}

Prerequisites: 151 , and Chemistry 121 b with grades of C or better. 466-3 Terrestrial Ecosystems - [DNSM, LS] (Same as ENSC 466) Energy flow and mineral cycling as they interact with community organization and other processes in terrestrial ecosystems. Three hours lecture per week. Prerequisite: 150, 151 with a grade of \(C\) or better or consent of instructor.

467-3 Animal Physiological Ecology - [LS] Examine how an organism's environment affects its physiology. Comparative approach will explore physiological adaptations to a variety of environmental factors. Not for graduate credit. Prerequisites: 150,151 , and either 340 or 365 with grades of \(C\) or better or permission of instructor.

468-3 Pollution Ecology - [LS] The application of biological, ecological, chemical, and physical sciences to understanding the fate and transport of pollutants through ecosystems. Prerequisite: One year of college chemistry CHEM 121a,b and \(125 \mathrm{a}, \mathrm{b}\) with a grade of C or better or consent of instructor.

469-4 Ecology of Plants - [DNSM, LS] Plant adaptations; population and community ecology of plants; introduction to landscape ecology. Focuses on primary literature, scientific communication, data analysis, and natural history of plants. Prerequisites: 150, 151, 220, 365, or equivalent or consent of instructor.

470-4 Field Biology — [DNSM, LS] Taxonomy, natural history, distribution of local plants or animals. Students collect from the field, identify, classify and preserve specimens. Two lectures and 2 laboratories per week. Fee required for field trips. Prerequisites: 151 with a grade of \(C\) or better.
471-4 Plant Systematics - [LS] Examination of basic processes in vascular plant evolution. Local flora characteristics and identification. Three lectures and one, twohour lab per week. Prerequisites: 150, 151, 220 with grades of C or better.
472-4 Topics in Plant Physiology — [DNSM, LS] Topics include photosynthesis, mineral nutrition, water as related to plants, growth and movement of plants. Two lectures and 2 laboratories per week. Prerequisites: 150, 151, 220, 319 with grades of \(C\) or better or consent of instructor.

473-4 Plant Anatomy - [LS] Examination of plant cells, tissues, and morphology. Two lectures and two labs per week. Prerequisites: 151 with a grade of \(C\) or better or consent of instructor.
474-4 Plant Taxonomy - [DNSM, LS] A field-oriented course in which students collect and identify plant specimens using professional taxonomic keys. Prerequisites: 151 with a grade of \(C\) or better or consent of instructor.

475-4 Plant Molecular Biology - 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. Prerequisites: 319 with a grade of \(C\) or better.
480-4 Animal Behavior - [LS] Examination of mechanisms, evolution, and ecological consequences of animal behavior. Concepts will be introduced through lectures, laboratory and field experiments, and independent projects. Prerequisites: 150, 151, and 220 with grades of \(C\) or better or consent of instructor.
481-4 Quantitative Morphology - [EL, LS] Principles of the quantitative analysis of morphology, or an organism's size and shape, and its consequences. Prerequisite: BIOL 220 with a grade of \(C\) or better, or consent of instructor.

\section*{Biological Sciences (BIOL)}

483-4 Entomology and Insect Collections - An introduction to the life history, ecology, physiology, behavior, forensics, diversity, and taxonomy of insects. Two lectures and two laboratories per week. Prerequisite: 150, 151, and 220 with grades of C or better or consent of instructor.
485-4 Ichthyology - [DNSM, LS] Taxonomy, ecology, distribution, behavior, and anatomy of fishes. Emphasis on local fauna. Two lectures and 2 laboratories per week. Saturday field trips required. Prerequisite: 150, 151, and 220 with grades of C or better or consent of instructor.
486-4 Herpetology - [DNSM, LS] Living and fossil amphibians and reptiles, evolution, relationships, morphology, behavior. Two lectures and 2 laboratories per week. Saturday field trips required. Prerequisites: 150, 151 with a grade of \(C\) or better or consent of instructor.

487-4 Ornithology - [LS] Examination of form, function, behavior, ecology and evolution of birds. Emphasis on local fauna. Three lectures and 1 laboratory per week. Saturday field trips required. Prerequisite: 150, 151, with a C or better or consent of instructor.

488-4 Mammalogy — [DNSM, LS] Morphology, systematics, natural history, taxonomy, evolution of living and fossil mammals. Two lectures and 2 laboratories per week. Prerequisites: 150,151 with a grade of \(C\) or better or consent of instructor.

489-4 Comparative Vertebrate Anatomy - [DNSM, LS] A systematic study of the vertebrate body. Comparative approach will explore the anatomical similarities and differences among major vertebrate taxonomic groups. Prerequisites: 150, 151 and 220 with grades of C or better, or instructor consent.
490-2 to 4 Topics in Biology - [LS] In-depth examination of an area of Biological Sciences. May be repeated up to 8 hours as long as neither topic nor professor is repeated. Not for graduate credit.

491-1 to 4 Readings in Biology - [LS] Supervised readings in specialized areas. Two hours of 491 or 493 may count toward BIOL elective credit. Not for minor credit. Prerequisite: consent of instructor.
492-1 Biological Sciences Colloquium I - [LS] Seminar to consider recent advances in science. Not for graduate credit. Prerequisites: Completion of BIOL 150, 151, and BIOL 220 with grades of C or better and Junior standing.
492m-1 Biological Sciences Colloquium II - [LS] Seminar to consider recent advances in science. Not for graduate credit. Prerequisites: Completion of BIOL 150, 151, and BIOL 220 with grades of C or better, completion of BIOL 492 and Senior status. Must be mentored by a faculty member.
493-1 to 8 Special Problems in Biology - [LS] Research on biological problems. Two hours of 491 or 493 may count toward BIOL elective credit. Prerequisite: consent of instructor.
494-3 Methods of Teaching Biology in the Secondary School - [DNSM, LS] Methods in biology teacher certification (K-12). Planning and presenting lectures and laboratories, education software, pertinent teaching materials, and discussion of controversial topics in the classroom. Prerequisites: junior or senior standing, 2.5 G.P.A. in Biological Sciences and consent of instructor.

495a-f-1 to 12 Clinical Topics in Medical Technology [LS] Hospital-based lecture at an accredited and affiliated school of medical technology. (a) Clinical Biochemistry; (b)

Clinical Microbiology; (c) Clinical Hematology/ Coagulation; (d) Clinical Immunology/Serology/ Immunohematology; (e) Urinalysis/Clinical Microscopy; (f) Special Topics in Medical Technology. May be repeated to a maximum total of 36 hours. Not for graduate credit. Prerequisite: acceptance for clinical education into an affiliated school of medical technology.
\(496-4\) [DNSM, EGC, II, LS] Rainforest Service Learning for Educators - Service learning course for educators investigates sustainable development issues in rainforest preservation through study of culture, language, ecology, and geography. Consent of instructor required.
497-1 Senior Assignment - Demonstration of proficiency in biological sciences. Not for graduate credit. Prerequisites: BIOL 150, 151, 220 with grades of C or better, completion of BIOL 492, and Senior standing.

\section*{Chemistry (CHEM)}

111-3 Contemporary Chemistry - [BPS, INSM] [IAI No. P1 903] Introduction to chemical principles, atomic and molecular nature of matter, pervasive role of chemical knowledge and technology in today's world. Three lecture hours per week.

113-3 Introduction to Chemistry - [PS] Preparation for university chemistry. Mathematical techniques, problem solving, chemical terms, concepts, laws. For students with inadequate preparation in high school chemistry. May not be applied to major or minor in chemistry. Prerequisite: AD 095 or equivalent.

120a,b-3 each General, Organic, and Biological Chemistry - (a) [BPS, INSM] [IAI No. P1 902] (b) [BPS, DNSM] Not for chemistry majors. Primarily for students planning careers in nursing and allied health professions. (a) General and organic chemistry; (b) Organic and biological chemistry. Three lecture hours per week. Must be taken in sequence. Prerequisite:
(a) concurrent enrollment in 124a. (b) 120a: concurrent enrollment in 124b.

120n-4 Nursing Principles of General, Organic, and Biological Chemistry - [BPS, DNSM, INSM] Not for chemistry majors. Primarily for students planning careers in nursing and allied health professions. Three 75-minute lectures per week. Prerequisite: 1) one year of high school chemistry and placement by ACT Math score, OR 2) One year of high school chemistry and placement by chemistry readiness exam.
121a,b-4 each General Chemistry - [(a) BPS, INSM or DNSM] [IAI No. P1 902], [(b) BPS, DNSM] University-level modern chemistry for science students, atomic structure, molecular bonding, structure, stoichiometry, chemical change, equilibrium, qualitative analysis. Four lecture hours per week. Must be taken in sequence. Prerequisites: (a) high school chemistry and: placement by ACT Math score; or placement by Chemistry Readiness Exam; or successful completion of 113 and MATH 120 (or higher MATH course). (b) C or better in 121a.
124a,b-1 each General, Organic, and Biological Chemistry Laboratory - [BPS, EL] [(a) INSM, IAI No. P1 902L; (b) DNSM] Not for chemistry majors. Safety practices and basic techniques. Topics complement CHEM 120. (a) General and organic chemistry. (b) Organic and biological chemistry. One three-hour laboratory per week. Must be taken in sequence. Prerequisite: (a) concurrent enrollment in 120a. (b) 124a; concurrent enrollment in 120b.
\(124 n-1\) Nursing Principles of General, Organic, and Biological Chemistry Laboratory - [BPS, EL, DNSM, INSM] Not for Chemistry majors. Safety practices and basic
techniques. Topics complement CHEM 120n. One three-hour laboratory per week. Prerequisite: concurrent enrollment in CHEM 120n.

125a,b-1 each General Chemistry Laboratory - [BPS, DNSM, EL, IAI No. P1 902L] Laboratory safety practices, techniques, qualitative and quantitative analysis, chemical change and equilibria. One three-hour laboratory per week. Prerequisite: concurrent enrollment in corresponding 121 lecture.
131-4 Engineering Chemistry - [BPS, DNSM, INSM] Fundamental principles of chemistry especially for students planning careers in engineering fields. Concepts represent the basic principles of chemistry with emphasis on engineering applications. Prerequisites: High School chemistry and placement by ACT score; or placement by chemistry Readiness Exam; or successful completion of 113 and Math 120 or higher Math course.
135-1 Engineering Chemistry Laboratory - [BPS, DNSM, EL, INSM] Chemical laboratory experiments with an emphasis on engineering applications. Laboratory safety practices, techniques, qualitative and quantitative analysis, chemical change and equilibria. One three-hour laboratory per week. Prerequisite: concurrent enrollment in corresponding 131 lecture.
241a,b-3 each Organic Chemistry - [BPS, DNSM] Structural types of organic compounds correlated with chemical and physical properties. Bonding, reaction dynamics, reaction types, stereochemistry, functional groups, spectroscopic methods. Three lecture hours per week. Must be taken in sequence. Prerequisites: (a) 121b; (b) 241a; concurrent enrollment in CHEM 245.

245-2 Organic Chemistry Laboratory - [BPS, EL] Organic synthesis; techniques for determining physical and chemical properties of organic systems. Two three-hour laboratory periods per week. Prerequisite: 241a, concurrent enrollment in 241b.

296-1 Introduction to Chemical Problems - [PS] Facultysupervised introduction to elementary chemical problems. Written report at end of semester required. Prerequisite: C or better in CHEM 121b and 125b, prior arrangement with faculty member. May be repeated to a maximum of 3 hours.

331-3 Quantitative Analytical Chemistry - [DNSM, PS] Theory and methods of chemical analysis. Three lecture hours per week. Prerequisites: 121b, concurrent enrollment in 335 .
335-1 Quantitative Analytical Chemistry Laboratory [EL, PS] Laboratory experience in gravimetric, volumetric, chromatographic, instrumental analytical techniques. One three-hour laboratory per week. Prerequisites: 125b, concurrent enrollment in 331.
345-2 Advanced Organic Chemistry Laboratory - [PS] Identification of organic compounds, advanced synthetic techniques. Two laboratory periods per week. Prerequisite: 241b, 245.

351-3 Basic Biochemistry 1-[BLS] Topics will include the structure and function of biologically important macromolecules including: nucleic acids, proteins, carbohydrates, as well as regulation of metabolism, biosynthesis, and degradation of biological molecules. Prerequisites: CHEM 241 b with a C or better. Not for CHEM majors.

352-3 Basic Biochemistry 2 - [BLS] Continuation of CHEM 351. Topics will include the structure and function of biologically important macromolecules including: carbohydrates and lipids, as well as regulation of metabolism, biosynthesis, and degradation of biological molecules. Prerequisites: CHEM 351 with a C or better. Not for CHEM majors.

\section*{Chemistry (CHEM)}

361a,b-3 each Physical Chemistry - [DNSM, PS] Mathematical models of chemical behavior and its underlying causes; experimental foundations of models, thermodynamics, statistical mechanics, kinetics, quantum mechanics, spectroscopy, with applications. Three lecture hours per week. Prerequisites: (a) 121b, PHYS 211b or PHYS 206b, MATH 150 and 152; (b) 361a.
365a-2,b-1 Physical Chemistry Laboratory - [EL, PS] Investigations of physical chemical phenomena. Emphasis on computer-aided data analysis, rigorous preparation of written reports, introduction to chemical literature. One four-hour laboratory period per week. Prerequisites: 300, concurrency permitted.
396-2 Introduction to Research - [PS] Investigation of relatively simple research problems in chemistry, directed by faculty member. Students will submit a written report at the end of each semester in which they are enrolled. Prerequisites: C average in chemistry courses, prior arrangement with faculty member.

410-3 Bioinorganic Chemistry - Exploration of the principles of inorganic reactivity through the structure, stability and reactivity of metal ion-biomolecule complexes, as revealed through appropriate physical methods. Prerequisites: CHEM 451 b with a C or better.
411-3 Inorganic Chemistry - [DNSM, PS] Modern inorganic chemistry including bonding theory, symmetry and group theory, stereochemistry of complexions, reaction mechanisms, main group chemistry, transition metal chemistry, organometallic chemistry. Three lecture hours per week. Not for graduate credit. Prerequisite: 361a.

\section*{415-2 Inorganic Chemistry Laboratory - [EL, PS]} Synthesis of inorganic compounds; vacuum and controlled atmosphere techniques. Two three-hour labs per week. Not for graduate credit. Prerequisite: 411 .
419-1 to 3 Special Topics in Inorganic Chemistry - [PS] Selected advanced topics. May be repeated to a maximum of 6 hours as long as no topic is repeated. Prerequisites: 361a, consent of instructor.
431-3 Instrumental Analysis - [DNSM, PS] Theory and methods of modern instrumental analytical techniques and instrumentation. Three lecture hours per week. Prerequisites: 361a.

435-1 Instrumental Analysis Laboratory - [EL, PS] Laboratory practice in spectroscopic and other instrumental techniques. One four-hour laboratory per week. Prerequisites: 361a, concurrent enrollment in 431.
439-1 to 3 Advanced Topics in Analytical Chemistry - [PS] Selected advanced topics. May be repeated to a maximum of 6 hours as long as no topic is repeated. Prerequisites: 331, \(335,361 \mathrm{a}\), consent of instructor.
441-3 Physical Organic Chemistry - [DNSM, PS] Chemical equilibria, kinetics, structure-reactivity relationships as methods for determining mechanisms of organic reactions. Three lecture hours per week. Prerequisites: 241b, 361a.
444-3 Organic Reactions - [DNSM, PS] Emphasis on monofunctional compounds. Topics not covered in elementary courses. Three lecture hours per week. Prerequisite: 241 b .

\section*{445-2 Nuclear Magnetic Resonance Operation,}

Experimental Design, and Analysis - [PS] Current practices in the operation, experimental design, and analysis of modern NMR spectroscopy. Prerequisites: 241B, 361A, consent of instructor.

446-1 Organic Spectral Analysis - [PS] Use of modern spectral techniques to analyze the structure of organic compounds. Various types of spectroscopy along with computer techniques will be employed. Prerequisites: 241B, 361 A , consent of instructor.
449-1-3 Special Topics in Organic Chemistry - [PS] Selected advanced topics. May be repeated to a maximum of 6 hours as long as no topic is repeated. Prerequisites: 241b, 361 a , consent of instructor.
451 a,b,c- 3 each Biochemistry - Life processes at molecular level. a) Structure and function of biomolecules; b) Intermediary metabolism, transmission of hereditary information; c) Advanced topics including proteomics, genomics, cellular and molecular techniques, bioanalytical, biophysical and bioorganic chemistry. Must be taken in sequence. Prerequisite: a) 241b with a grade of C or better, b) 451 a with a grade of C or better, C ) 451 b with grade of C or better.
455-2 Experimental Methods in Biochemistry - [EL, LS] Current practices in enzyme isolation and assessment. Microcomputer-assisted data treatment, graphics, statistical methods, data acquisition. Six laboratory hours per week. Prerequisite: 241a, concurrent enrollment in 451b.
459-1 to 3 Special Topics in Biochemistry - [LS] Selected advanced topics such as enzymology, metabolism, nucleic acids. May be repeated to a maximum of 6 hours as long as no topic is repeated. Prerequisites: 361 a, consent of instructor.

461a-3 Biophysical Chemistry 1 - Examination of biophysical chemistry principles of thermodynamics and kinetics and the understanding of biological systems using physical chemistry. Prerequisites: PHYS 131b or PHYS 152, and CHEM 451B, and MATH 150 with grade of \(C\) or better.
461b-3 Biophysical Chemistry 2 - Course will examine the biophysical chemistry principles of quantum mechanics and spectroscopy and the understanding of biological systems using physical chemistry. Prerequisites: CHEM 461a with grade of C or better.
465-2 Biophysical Chemistry Lab - 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: Concurrent enrollment or completion of CHEM 461a with a grade of C or better.
469-1 to 3 Special Topics in Physical Chemistry - [PS] Selected advanced topics. May be repeated to a maximum of 6 hours as long as no topic is repeated. Prerequisites: 361 b , consent of instructor.
471-3 Principles of Toxicology - [BLS, DNSM] (Crosslisted with ENSC 531) Chemical and Biological effects of toxic substances in living organisms at the molecular and cellular level. Topics: routes of entry, mechanism of action, effects, antidotes, etc. Prerequisites: organic chemistry, graduate standing, or consent of instructor.
479-1 to 3 Special Topics in Environmental Chemistry - [PS] Selected advanced topics. May be repeated to a maximum of 6 hours as long as no topic is repeated. Prerequisites: 241b, consent of instructor.
494-3 Methods of Teaching Chemistry in the Secondary School - [PS] Current teaching and resource materials. Ways to teach different chemical topics, problem solving techniques, and societal issues. Preparing for laboratory
activities. Safety concerns. Not for graduate credit. Prerequisite: Majors in Chemistry or Science Education only, consent of instructor.

496-2 Chemical Problems - [PS] Research problems directed by faculty member. May be repeated to a maximum of 4 hours. Students required to submit written report at end of each semester in which they are enrolled. Not for graduate credit. Prerequisite: senior standing, major in chemistry with \(B\) average.
499-0 Senior Assignment - Capstone exam, review of professional ethics and communications, and presentation on research or literature topic. Required for graduation. Prerequisite: CHEM 300 with a grade of C or better, no concurrency allowed, senior standing, major in chemistry with \(B\) average.

\section*{Chinese (CHIN)}

101-4 Elementary Chinese I - [BICS, FL, SKFL] Reading, writing, listening, comprehension and speaking in Chinese, within context of Chinese culture. Lab included.

102-4 Elementary Chinese II - [BICS, EGC, FL, IC, SKFL] Continuation of 101. Lab included. Prerequisite: 101 or placement testing.
201-4 Intermediate Chinese I - [BICS, DFAH, FL, SKFL] Further comprehension of spoken language and oral expression, reading modern prose selections, and writing simple compositions. Lab included. Prerequisite: 102 , two hours of high school Chinese, or consent of instructor.
202-4 Intermediate Chinese II - [BICS, DFAH, FL, SKFL] Continuation of 201. Lab included. Prerequisite: 201 or placement testing.
301-4 Advanced Chinese I- [BICS, DFAH, FL, SKFL] In-depth grammar review. Composition and conversation. Lab included. Prerequisite: CHIN 202, minimum grade of D, placement testing or consent of instructor.
302-4 Advanced Chinese II - [BICS, DFAH, FL, SKFL] In-depth grammar review. Composition and conversation. Lab included. Prerequisite: CHIN 301, minimum grade of D, placement testing or consent of the instructor.

\section*{Civil Engineering (CE)}

198-0 Civil Engineering Work Experience I - Supervised work experience with an agency, firm, or organization that uses engineers. Intended for students who have part-time cooperative experience jobs. Limited to students enrolled in more than 6 credit hours.
199-0 Engineering Cooperative Education I - Supervised work experience with an agency, firm, or organization that employs engineers. First work period of five-year academic/ work experience program. Prerequisite: consent of engineering co-op advisor.

204-3 Engineering Graphics and CAD - Hand- and computer-assisted drawing. Geometric constructions, orthographic projections and sketching, section views, auxiliary views, descriptive geometry. CAD concepts and applications.
206-2 Civil Engineering Surveying - Principles of plane surveying. Introduction to use of surveying equipment, collection and reduction of field data. Prerequisite: 204 or consent of instructor.
207L-1 Civil Engineering Computer Applications Operation of microcomputers and software used in civil engineering; use of oscilloscope, multi-meter, frequency
counter, spectrum analyzer, recorder, transducer, potentiometer, programmable calculator (supplied by student).
240-3 Statics - Static equilibrium conditions for forces and moment systems; first and second moments of lines and areas. Friction. Shear and moment diagrams. Prerequisite: PHYS 151.
242-3 Mechanics of Solids - Elastic deformations and stresses in two-dimensional structural elements caused by axial, bending, shear, and torsion loads; stress-strain relationships, Mohr's Circle. Elementary design concepts. Prerequisite: 240 .
298-0 Civil Engineering Work Experience II - Supervised work experience with an agency, firm, or organization that uses engineers. Intended for students who have part-time cooperative experience jobs. Limited to students enrolled in more than 6 credit hours. Prerequisite: 198.
299-0 Engineering Cooperative Education II - Supervised work experience with an agency, firm, or organization that employs engineers. Second work period of five-year academic/work experience program. Prerequisite: consent of engineering co-op advisor.
315-3 Fluid Mechanics - (Same as ME 315) Basic principles of conservation of mass, momentum and energy in fluid systems; dimensional analysis; open-channel flow; incompressible flow; boundary layers. Prerequisites: upperdivision standing in civil or mechanical engineering, 242 or concurrent enrollment, or consent of instructor.
330-2 Engineering Materials - Physical and chemical properties of engineering materials (metals, woods, asphalt, and cement concrete). Prerequisite: upper-division civil engineering standing, 242 , or consent of instructor.

330L-1 Engineering Materials Laboratory - Laboratory determination of material properties. Experiments include: wood bending and compression tests, aggregate tests, asphalt mix design, concrete mix design, and steel tensile strength test. Prerequisites: 207L and concurrent enrollment in CE 330, or consent of instructor.
342-3 Structural Engineering I - Structural loads. Kinematic instability. Beam, truss, and frame analysis. Computerized structural analysis. Introduction to design of steel structures. Code requirements. Prerequisite: upper-division civil engineering standing, 242 , or consent of instructor.
343-3 Structural Engineering II — Introduction to indeterminate structures. Virtual work. Approximate methods of analysis. Force method. Introduction to design of reinforced concrete structures. Code requirements. Prerequisite: upper-division civil engineering standing, 330 or concurrent enrollment, 342 , or consent of instructor.
354-3 Geotechnical Engineering - Introduction to geotechnical engineering. Basic geological principles for engineering design; soil classification, water in soils, effective stress, shear strength and soil compressibility. Prerequisite: upper-division civil engineering standing, 242,315 or concurrent enrollment, or consent of instructor.
354L-1 Geotechnical Engineering Laboratory Laboratory experiments in soil mechanics. Prerequisites: 207L, concurrent enrollment in 354 , or consent of instructor.
376-3 Transportation - Planning and design of air, highway, rail, water, and pipeline transportation facilities (geometric and structural). Prerequisite: upper-division civil engineering standing, 206, ME 262 or concurrent enrollment, or consent of instructor.

\section*{Civil Engineering (CE)}

380-3 Environmental Engineering - Application of principles of chemistry, physics, biology, and mathematics to engineered systems for water purification, wastewater treatment, air pollution control, and solid waste management. Prerequisite: upper-division civil engineering standing or consent of instructor.
398-0 Civil Engineering Work Experience III — Supervised work experience with an agency, firm, or organization that uses engineers. Intended for students who have part-time cooperative experience jobs. Limited to students enrolled in more than 6 credit hours. Prerequisite: 298.
399-0 Engineering Cooperative Education III — Supervised work experience with an agency, firm, or organization that employs engineers. Third work period of five-year academic/ work experience program. Prerequisites: consent of engineering co-op advisor.

415L-1 Applied Fluid Mechanics Laboratory - Laboratory experiments involving flow of water in pipes, open channels, and other water resources and environmental engineering systems. Not for graduate credit. Prerequisites: upper-division civil engineering standing, 207L, 315 , or consent of instructor.
416-3 Engineering Hydrology - Hydrological processes and their relationship to design of structures for control and management of water resources, rainfall runoff relationships, probability and frequency analysis, surface water hydrology. Prerequisites: upper-division civil engineering standing, 315, 354 or concurrent enrollment, STAT 380, or consent of instructor.
435-3 Pavement Design - Analysis and design for highways and airports; factors affecting pavement performance and code requirements. Prerequisites: upper-division civil engineering standing, 330, 343, 354 or consent of instructor.
441-3 Design of Timber Structures - Design and analysis of timber structures and timber design code. Prerequisites: upper-division civil engineering standing, 343 or concurrent enrollment, or consent of instructor.
443-3 Design of Masonry Structures - Design and analysis of masonry structures and masonry design codes. Prerequisites: upper-division civil engineering standing, 343 or concurrent enrollment, or consent of instructor.
445-3 Advanced Structural Analysis - Analysis of indeterminate two- and three-dimensional trusses and frames, with emphasis on matrix methods, computer techniques. Prerequisites: upper-division civil engineering standing, 343 or concurrent enrollment, or consent of instructor.
446-3 Advanced Concrete Design - Advanced topics in reinforced concrete design, design of pre-stressed concrete beams, code design requirements. Prerequisites: upperdivision civil engineering standing, 343, 445 or concurrent enrollment, or consent of instructor.
449-3 Advanced Steel Design — Plastic analysis of steel structures. LRFD design. Stability theory applied to structural design. Composite beams and columns. Introduction to seismic design. Code requirements. Prerequisites: Upperdivision civil engineering standing, 342, 343 or concurrent enrollment, or consent of instructor.
455-3 Foundation Design - Design of foundations, retaining walls, cofferdams, earth embankments. Formulation of design problem statements and specifications. Estimates of bearing capacity, settlements, slope stability values. Prerequisites: upperdivision civil engineering standing, 354, or consent of instructor.
457-3 Soil Mechanics in Engineering — Mineralogy and Soil Behavior, Advanced Seepage and Consolidation Analyses,

Engineering Applications of Soil Mechanics, Implementation of Numerical Modeling in Soil Mechanics.Prerequisites: upperdivision civil engineering standing, 354 , or consent of instructor.
460-3 Municipal Infrastructure Design - Municipal infrastructure analysis and design; water distribution networks; wastewater collection; street systems; engineering processes of municipal designs. Prerequisites: upper-division civil engineering standing, 315,376 , or consent of instructor.
473-3 Travel Demand Forecasting - Transportation engineering principles for estimating the impact of new development on specific facilities and on a region using travel demand forecasting tools. Prerequisite: CE 376.
474-3 Computer Simulation in Traffic Engineering Highway capacity software (HCS), signal timing software (SYNCHRO), and micro-simulation software (TSIS). Prerequisite: 376
475-3 Transportation Planning - Covers the basis for transportation planning process; modeling transportation demand and supply; project evaluation for decision making, and transportation sustainability. Prerequisite: 376 or consent of instructor.
476-3 Traffic Studies - Acquisition, evaluation, statistical analysis and reporting of traffic engineering data used to design, evaluate and operate transportation systems. Prerequisite: CE 376 or consent of instructor.
480-3 Environmental Analysis - Analytical methods for examining water and wastewater. Sources of parameters, laboratory methods and limitations, data analysis, correlation of parameters with environmental effects. Lectures and laboratory. Prerequisites: upper-division civil engineering standing, 380, or consent of instructor.
486-3 Wastewater Treatment Design — Design of wastewater treatment systems, including preliminary, primary and secondary treatment processes and biosolids treatment and disposal. Prerequisites: upper-division civil engineering standing, 380, or consent of instructor.
487-3 Water Treatment Design — Design of potable water treatment processes with emphasis on chemical and physical unit operations. Prerequisites: upper-division civil engineering standing, CE 380, or consent of instructor.
488-3 Hazardous Waste Management - Major aspects of managing hazardous waste, including regulation, pollution prevention, treatment, disposal, spill clean-up, and site remediation. Prerequisite: upper-division civil engineering standing, CE 380, or consent of instructor.
491-1 to 4 Civil Engineering Project — 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. Prerequisites: upper-division civil engineering standing and consent of the instructor.
492-1 to 5 Topics in Civil Engineering - Selected topics of special interest. May be repeated to a maximum of 6 hours provided no topic is repeated. Prerequisite: upper-division civil engineering standing or graduate standing.
493-3 Engineering Design - Team/individual design projects requiring application of engineering principles to formulation of design problem statements and specifications; development of alternative solutions for open-ended design problems. Not for graduate credit. Prerequisites: upperdivision civil engineering standing, CE 343, 354, 376, 380, 460 or concurrent enrollment, or consent of instructor.

\section*{Computer Management and Information Systems (CMIS)}

108-3 Computer Concepts and Applications - [BICS, SKCP] Computer technology's impact on individuals and our world. Finding and accessing worldwide sources of information; presenting ideas orally, graphically, and in writing.
130-3 Introduction to Programming Logic - [BICS] This course introduces programming concepts used in developing business applications that require the following elements: Input, Output, Arithmetic Expressions, Loops, and Arrays. Prerequisites: CMIS 108 or CS 108 with grade of C or better.
232-3 Visual Basic Programming for Business - The Visual Basic programming language is used to teach business computer programming using a visual programming approach; includes fundamental programming principles for event-driven programming. Prerequisite: 130 with grade of C or better.
234-3 Java Programming for Business - Application of business problem solving techniques, program design and development, and programming logic to create java programs. Prerequisite: 130 with grade of \(C\) or better.

260-3 COBOL Programming - [IAI CS913] Businessoriented computer programming using listings, computations, comparisons, tables/arrays, files. Students apply logical methods to the design of programs. Prerequisite: 130 with grade of \(C\) or better.
270-3 Structured Systems Analysis - Structured tools and techniques as used in business systems analysis and design. Prerequisite: CMIS 108 or CS 108.
300-3 Web-Based Application Design - Analysis, design, and implementation of Internet web-site home pages using current tools of hypertext markup languages, integrated software packages, and specialized web creation software. Prerequisite: 270, CMIS major or specialization.
310-3 Information Technology Hardware and Systems
Software - Principles and application of computer hardware and software from theoretical underpinnings to installation and configuration of systems. Hands-on and simulated exercises will be completed to emphasize a real-world setting. Prerequisite: 270, CMIS major or specialization.
342-3 Information Systems for Business - Information system principles applied to business. Analysis of how computer-based information systems support operational, tactical, and planning decisions. Prerequisite: CMIS or CS 108, and MGMT 331 with grade of D or better, accounting, CMIS, economics or finance, business administration majors and business minors.

430-3 Advanced Java Programming - Development of applications, applets, and advanced GUI, including advanced object-oriented programming in Java, multithreading, files, multimedia, database use and networking concepts used for applications. Prerequisite: 234 with grade of C or better, CMIS major or specialization.

450-3 Database Design - Basic concepts/terminology of relational models with emphasis on current technology and business applications including SQL. Prerequisites: 130 and 270 with grade of C or better, CMIS major or specialization.
460-3 ASP .NET Programming - Advanced event-driven programming, object-oriented programming techniques for online Web applications including Web database programming (ADO.NET), security, Web services and application
deployment. Prerequisite: 232 with grade of C or better, CMIS major or specialization..
462-3 UNIX and Server Systems - UNIX and Windows server operating systems to include scripting language plus server software installation and configuration. Prerequisite: 310 , CMIS major or specialization.
468-3 Business Telecommunications - Concepts and terminology dealing with data communication and distributed systems with emphasis on business applications. May be taken for graduate credit.
Prerequisite: 310, CMIS major or specialization.
470-3 Structured Systems Design - Structured systems design methodologies, including process-oriented, data structure-oriented, and information-oriented techniques. Not for graduate credit. Prerequisites: 270, 450, CMIS major or specialization.
472-3 End User Systems Support - Application of knowledge, skills, and abilities necessary in the user support industry to include software and hardware support related to small computer environments as a standalone or networked setting. Prerequisites: 342 , CMIS major or specialization.
488-3 to 6 Information Systems Internship - Application of information systems knowledge in a structured work environment with a written report of the work experience. May be repeated to a maximum of 6 hours. Not for graduate credit. Prerequisites: senior standing and consent of instructor, CMIS major or specialization.

\section*{490-3 to 6 Independent Study in Information Systems}
- Investigation of topical CMIS area resulting in deliverable unit. May be repeated to a maximum of 6 hours. Prerequisites: consent of chairperson and program director, CMIS major or specialization.

495-3 to 6 Seminar: Information Systems — Current issues related to business aspects of dealing with information systems. May be repeated to a maximum of 6 hours if topics differ.

\section*{Computer Science (CS)}

108-3 Applied Computer Concepts - [BICS, SKCP] Computer skills course which assumes no prior experience with computers. Introduces computer concepts and word processing, spreadsheets and database software; examines societal issues. Graduation credit may be earned for CS 108 or CMIS 108, but not for both. Prerequisite: two years of college preparatory mathematics in high school.

111-3 Concepts of Computer Science - [BICS, INSM] Broad view of computer science: computer hardware, operating systems, software design and development, algorithms, networks, and applications.
140-4 Introduction to Computing I - [SKCP] Programming course that assumes basic computer literacy. Introduces a high-level programming language and basic problem solving. Three lecture hours and two laboratory hours per week. Prerequisites: MATH 120 with a minimum grade of C or three years of college-preparatory mathematics in high school.
145-3 Introduction to Computing For Engineers - [SKCP] Introduces C++ programming and basic problem solving. Focuses on computer applications in engineering, science, and numeric methods. Prerequisites: MATH 150 with a minimum grade of C and basic computer literacy.
150-3 Introduction to Computing II - [SKCP] Algorithmic problem solving with a modern programming language.

\section*{Computer Science (CS)}

Language syntax; basic design methods; algorithms; abstraction. Prerequisite: 140 with a minimum grade of C .
198-0 Computer Science Work Experience I — Supervised work experience with agency employing computer scientists or information specialists. For students with part time cooperative jobs. Limited to students enrolled in more than six credit hours. Prerequisite: sophomore standing in computer science.

\section*{199-0 Computer Science Cooperative Education}

Experience I-Supervised work experience with agency employing computer scientists or information specialists. First work period of 5-year academic/work experience program. Prerequisite: sophomore standing in computer science

234-3 Database and Web System Development - An introduction to multi-tier software systems and database programming, and their application to web-based information storage and retrieval systems. Prerequisite: 150 with a minimum grade of \(C\).

240-3 Introduction to Computing III - Basic software engineering concepts, elementary data structures and algorithms, fundamentals of object-oriented programming. Prerequisite: 150 with a minimum grade of C .

298-0 Computer Science Work Experience II - Supervised work experience with agency employing computer scientists or information specialists. For students with part time cooperative jobs. Limited to students enrolled in more than six credit hours. Prerequisite: sophomore or junior standing in computer science.

\section*{299-0 Computer Science Cooperative Education}

Experience II - Supervised work experience with agency employing computer scientists or information specialists. Second work period of 5 -year academic/work experience program. Prerequisite: sophomore or junior standing in computer science.

\section*{312-3 Introduction to Computer Organization and}

Architecture - Processor, memory, I/O structure of computer systems, data representations, instruction set architecture of typical processor as hardware/software interface, processor implementation, performance evaluation methods. Prerequisite: 150 with a minimum grade of \(C\).

314-3 Operating Systems - Processes, threads, synchronization; I/O and memory management at the hardware and OS levels; file systems, implementation of basic OS abstractions, concurrent programming. Prerequisite: 312 with a minimum grade of C .

321-3 Human-Computer Interaction Design - Design of interactions between people and computers. Interface design, conceptual models, design methods, software evaluation, and ethical concerns. Software design project. Prerequisite: 234, STAT 244 or STAT 380, with a minimum grade of C.
325-3 Software Engineering - Introduction to the concepts and techniques required to develop complex software systems and manage software projects. Emphasis on object-oriented methodologies and modeling via UML. Prerequisite: 234 and 240; both with a minimum grade of C .

330-3 Programming Languages - Design, appropriateness, and linguistics issues associated with different programming languages and programming paradigms. Covers syntax and semantics of languages, including BNF notation. Prerequisite: 312 with a minimum grade of \(C\).

340-3 Algorithms and Data Structures - Considers appropriate choice of data structures, comparisons of algorithms, recursive algorithms, complexity, introduction to
parallel algorithms. Prerequisites: 240, MATH 130 or MATH 150, and MATH 224; all with a minimum grade of C.
382-3 Game Design, Development, and Technology Introduction to the entire process of game development, including history, social impact, design, programming, software engineering, math, physics, graphics, animation, audio, AI, and hardware. Prerequisite: 312,321 , and MATH 152, all with a C or better.

390-3 Topics in Computer Science - Selected topics in computer science. May be repeated to a maximum of 6 hours for different topics. Prerequisite: consent of instructor.

398-0 Computer Science Work Experience III - Supervised work experience with agency employing computer scientists or information specialists. For students with part time cooperative jobs. Limited to students enrolled in more than six credit hours. Prerequisite: junior or senior standing in computer science.

\section*{399-0 Computer Science Cooperative Education}

Experience III - Supervised work experience with agency employing computer scientists or information specialists. Third work period of 5-year academic/work experience program. Prerequisite: junior or senior standing in computer science.
423-3 Compiler Construction - Translation of programming languages. Emphasis on techniques used in construction of compilers, including lexical analysis, syntactical analysis, type checking, code generation. Prerequisite: 330 with a minimum grade of C .

425-3 Senior Project: Software Design — First part of a twosemester sequence in which teams complete the design and planning stages of a software development project. Selected topics in software development, group dynamics, and project management. Not for graduate credit. Prerequisites: 314,321 , 325 , and 340 ; all with a minimum grade of \(C\).

434-3 Database Management Systems — Database management system concepts, models, languages. Entity/ relationship, relational, and object-oriented data models; relational database design and implementation including SQL; object databases. Prerequisites: 234 and 240; both with a minimum grade of C .

438-3 Artificial Intelligence - Principles and programming techniques of artificial intelligence. Intelligent agents, heuristic programming, knowledge representation, expert systems, machine learning. Prerequisite: 340 with a minimum grade of C .

447-3 Networks and Data Communications - Concepts of networks and data communications. Networking protocols and architecture; data encoding and transmission; network management; and distributed applications. Prerequisites: 314 and 340 ; both with a minimum grade of C .

454-3 Theory of Computation - Theoretical foundations of computer science, including theory of automata; pushdown automata, Turing machines; formal languages. Prerequisite: 340 with a minimum grade of C .
456-3 Advanced Algorithms - Advanced algorithms and data structures; basic complexity theory and approximation algorithms for NP-hard problems. Prerequisite: 340 with a minimum grade of \(C\).

482-3 Computer Graphics - Introduction to 2D and 3D graphics, graphics hardware, scan conversion, antialiasing, hidden components, transformations, projections, ray tracing, curve and surface modeling, animation. Prerequisites: 240, 312, and MATH 152; all with a minimum grade of C .

\section*{Computer Science (CS)}

490-3 Topics in Computer Science - Selected topics in computer science. May be repeated to a maximum of 6 hours for different topics. Prerequisite: consent of instructor.

495-3 Independent Study - Reading and research in specific areas of computer science. May be repeated to a maximum of 6 hours. Prerequisite: consent of instructor and department chair.
499-3 Senior Project: Software Implementation - Second part of a two-semester sequence in which teams implement, test, and deploy the software development project that was planned and designed in CS 425. Includes a formal presentation to the Computer Science faculty. Not for graduate credit. Prerequisite: 425 with a minimum grade of C .

\section*{Construction (CNST)}

120-2 Introduction to Construction - Survey of construction industry; typical employment opportunities; history; current development. Introduction to graphics and problem solving techniques.
199-0 Construction Cooperative Education I—Supervised work experience with agency, firm, or organization which employs constructors. First work period of an academic / work experience program. Prerequisites: sophomore standing in construction and consent of engineering co-op advisor.

210-3 Construction Materials and Methods - Introduction to construction materials and material properties, construction methods and equipment for handling, storing and installing. Prerequisite: 120 or concurrent enrollment, CHEM 120a, 121a or 131, MATH 150 or concurrent enrollment.

241-4 Statics and Mechanics of Solids - Static equilibrium conditions for external and internal force and moment systems. Shear and bending moment diagrams. Elastic deformation and stresses in structural elements. Mohr's circle. Prerequisite: MATH 152, PHYS 151 with a grade of C or better.
264-4 Construction Surveying - Surveying applications for construction. Prerequisites: 120, MATH 150 or concurrent enrollment.

\section*{299-0 Construction Cooperative Education II -} Supervised work experience with agency, firm, or organization which employs constructors. Second work period of an academic / work experience program. Prerequisites: junior standing in construction and consent of engineering co-op advisor.
301-3 Soils - Physical properties and behavior of soils as a construction material; construction methods and equipment in earthmoving; erosion and sedimentation control, regulatory requirements. Prerequisites: 210, 241 or CE 242.

301L-1 Soils Laboratory - Laboratory and field experiments in soil classification and determination of engineering index properties. Interpretation of test results and geotechnical reports. Prerequisite: Concurrent enrollment in 301 or consent of instructor.

310-3 Legal Aspects of Land Surveying - History of U.S. Public Land Survey System and government surveys of Illinois. Surveying definitions, rules of evidence and procedures. Laws and administrative rules governing surveying. Prerequisites: 264 or consent of instructor.
321-3 Electrical Systems - Basic electrical theory; electrical systems and distribution for facilities and during construction, safety, wiring, and energy consumption. Prerequisites: 210 and PHYS 151.

332-3 Mechanical Systems/HVAC - Mechanical heating, air conditioning, ventilation systems. Requirements during construction; construction installation; for completed facility. Prerequisites: 210 and PHYS 151.
341-3 Plans and Specifications - Reading and interpreting plans and specifications. Standard construction specifications and standard procedures. Take-off methods for estimating. Prerequisites: 210 with grade of C or better, 264.

\section*{351-4 Analysis, Design and Construction of Structural}

Systems - Load paths in typical structural configurations, approximate stress analysis of structures, concrete formwork design, analysis, design and construction of wood, concrete, steel, masonry and composite structures. Prerequisites: 210, 241 or CE 242.

\section*{353-3 Computer Applications in Construction -} Introduction to computer methods used in the construction industry. Computer aided drafting, spreadsheets, elementary computer programming, and web-based construction management. Prerequisite: 210.
364-3 Boundary Surveying - Evidence and procedures in determining property boundaries and land lines. Laws relating to land surveying in Illinois and Missouri. Role of land surveyor in boundary disputes and locations. Prerequisite: 310 or consent of instructor.
399-0 Construction Cooperative Education III - Supervised work experience with agency, firm, or organization which employs constructors. Third work period of an academic/ work experience program. Prerequisite: senior standing in construction and consent of engineering co-op advisor.
403-4 Planning and Scheduling - Planning and scheduling construction projects including resource and manpower allocation. CPM and PERT methods; progress reports and records. Not for graduate credit. Prerequisites: 341 and 353 .
411-3 Construction Contracts - Legal aspects of contracts and bidding; types of construction contracts and documents including bonds; OSHA, local, state, federal regulations. Not for graduate credit. Prerequisite: 341 .
415-3 Land Development - A study of the land development process and the roles of local government, design consultants, developers, and contractors in residential development. Subdivision design and construction. Not for graduate credit. Prerequisite: 341 or consent of instructor.
422-3 Spanish for Construction - [EGC, IC, II] Job-specific Spanish for non-Spanish speaking construction personnel. Understanding cultural differences, role of religion in work life and other issues that affect the Hispanic construction workforce. Prerequisite: Senior standing or consent of instructor.
425-3 Heavy Civil Construction - Methods and procedures for estimating, planning and constructing road and bridge projects. Not for graduate credit. Prerequisite: 210 .
432-3 Design-Build Process - Introduction to design-build project delivery system. Emphasis on design of buildings, conceptual estimating, scheduling, negotiated contracts, and professional presentations. Prerequisite: CNST 341 or consent of instructor.
442-3 Building Information Models - Development of 3-D building models for estimating, scheduling and construction planning. Use of technology for recording 3-D information to monitor construction. Applications for implementing virtual
reality in construction. Prerequisite: CNST 341, senior standing or consent of instructor.
451-3 Estimating and Bidding - Procedures to cost estimate and prepare bids on construction projects. Work quantity take-off; cost analysis; productivity; profitability. Not for graduate credit. Prerequisites: 341,353 and senior standing or consent of instructor.
451L-1 Estimating and Bidding Laboratory - Computer applications for quantity take-off, cost estimation and bid preparation. Prerequisite: concurrent enrollment in 451 or consent of instructor.

452-4 Construction Management and Senior Assignment - Professional aspects of construction management. Management techniques, quality control, safety, time and cost management. Not for graduate credit. Prerequisites: 403, 451 or consent of instructor.
461-3 Materials Sampling and Testing - Procedures and methods for developing and evaluating sampling and testing programs for construction. Individual projects required.
Prerequisite: STAT 244; senior or graduate standing, or consent of instructor.
463-3 Concrete Properties - Concrete construction techniques are analyzed. Emphasis will be on how fundamental properties are used to make project decisions. Individual projects required. Prerequisite: senior or graduate standing.
464-3 Project Controls - Discussion of methodology and techniques used typically by the construction industry in the control of project schedule, cost, contract administration and construction quality. Prerequisites: 341, senior standing or consent of instructor.
470-3 Construction Internship - Acquisition of hands-on experience in the management of a typical construction project. The jobsite becomes the classroom. Not for graduate credit. Prerequisite: 341, completion or concurrent enrollment in the OSHA 10-hour safety course, Senior standing and consent of instructor.
482-4 Advanced Survey Systems - Celestial observations and GPS. Surveying instrumentation, operation, error sources, and calibration. Prerequisites: 310 or consent of instructor.
484-4 Survey Computations and Applications Application of celestial observations and GPS to boundary, topographic, route surveying, and subdivision design. Analysis and adjustment of errors. Prerequisites: 482 or consent of instructor.
495-2 to 9 Topics In Construction - Selected topics of special interest in construction. Topics selected jointly by student and faculty. May be repeated to a maximum of 9 hours provided no topic is repeated. Not for graduate credit. Prerequisites: 341 , senior standing or consent of instructor.

\section*{Criminal Justice (CJ)}

111-3 Introduction to Criminal Justice - [BSS, ISS] [IAI No. CRJ 901] Introduction to the system of criminal justice including police, courts and corrections.
202-3 Introduction to Corrections - [SS] [IAI No. CRJ 911] Overview of corrections in the U.S.; includes philosophy of punishment, prisons, community-based sanctions, death penalty, ethical issues. Prerequisite: sophomore standing.

205-3 Juvenile Justice - [SS] [IAI No. CRJ 914] Arrest, pretrial detention, court procedures, and punishment involving
juveniles; includes waivers to adult court, privacy issues, community-based corrections, recidivism. Prerequisite: sophomore standing.
206-3 Principles of Criminal Law - [SS] Introduction to criminal law. The course covers the elements of crimes, criminal defenses and the nature of criminal responsibility. Prerequisite: sophomore standing.
207-3 Criminal Procedure - [SS] Supreme Court criminal procedure cases analyzed. Application of law to stop and frisk, search, seizure, warrants, cyberspace, interrogations, etc., highlighted at federal and Illinois level. Prerequisites: 111.
208-3 Introduction to Law Enforcement - [SS] History, organization and operations of police; includes use of discretion, arrest powers, detective work, interagency cooperation, use of force. Prerequisite: sophomore standing.
272-3 Criminology - (Same as SOC 272) [BSS, DSS] [IAI Course No. CRJ 912] An introduction to theory and research on lawmaking, lawbreaking and the reactions to crime and criminality. Prerequisite: 111 and sophomore standing.
302-3 Research Methods in Criminal Justice - [SS] Major research methods in social sciences as applied to study of crime and justice; includes surveys, observational methods, experimentation, comparative and historical research. Prerequisite: 111, 202 and 208, CJ majors and minors only.
303-3 Data Analysis in Criminal Justice - (SOC 303 may be substituted.) [SS] Key statistical concepts, their application and interpretation. Using a computer to calculate and graphically display statistics. Creating and manipulating data sets. Prerequisite: CJ or SOC 302, CJ and SOC majors or minors only.
311-3 Perspectives on Terrorism - [SS] A survey of international and domestic terrorism, the organizations, philosophies, and responses. Investigates the social, psychological, cultural, historical, political, religious, and economic dynamics of terrorism.
348-3 Law and Society - (same as PHIL 348 and POLS 392) Examines the nexus of culture, dispute management and law. We will explore law as a social construct, focusing on law's everyday impact on citizen's lives.
357-3 Organized Crime - [SS] History, development, and current practices of organized crime in the United States and other countries.
364-3 Rehabilitation and Treatment Modalities - [SS] Examines treatment and rehabilitation strategies, including theoretical foundations, counseling techniques, and community-based approaches. Prerequisite: 111, 202
365-3 Ethics in Criminal Justice - [SS] Explores ethical responsibilities of criminal justice personnel and the moral dilemmas faced by police, court, and corrections officials in processing suspects, defendants, and offenders. Prerequisite: 111, 202, 208
366-3 Race and Class in Criminal Justice - [SS] Criminal justice from the vantage point of race and class relations, racial/ cultural interaction, enforcement patterns, use of discretion, case outcomes, and punishment. Prerequisite: SOC 111.

367-3 Gender and Criminal Justice - [SS] Issues of gender in criminal justice, particularly with regard to offending, victimization, processing, incarcerating, rehabilitating and among professionals in the field. Prerequisites: CJ or SOC 201.

\section*{Criminal Justice (CJ) Culture, Ideas and Values (CIV) Curriculum and Instruction (CI)}

368-3 Serial Rape and Murder-[SS] Prevailing myths surrounding sexual assault and examination of the various typologies explaining rape and murder. Prerequisite: CJ/SOC 272

390-3 Special Topics in Criminal Justice - [SS] Topics not included in regular course offerings. May be repeated once to a maximum of 6 hours provided no topic is repeated.

396-1 to 6 Readings in Criminal Justice - [SS] Supervised reading or projects in selected areas of criminal justice. May be repeated for up to 6 hours. Prerequisite: Consent of Instructor; CJ majors/minors only.
401-3 Community Corrections - [SS] History and current practice, success rates of community-based alternatives to prison; includes boot camps, probation, electronic monitoring, and new "creative" sentencing. Prerequisite: 202, junior or senior standing.
408-3 Critical Issues in Law Enforcement - [SS]
Examination and analysis of issues in policing, including training and socialization, management and organization, deviance, minority recruitment, community-based efforts and use of force. Prerequisites: CJ 208 and junior/senior standing.

410-3 Judicial Process - [SS] Organization of and participants in the federal and Illinois state criminal courts are examined. Sources of law, criminal trial process and appellate process are discussed. Prerequisite: CJ 111.
420-3 United States Drug Policy - [SS] Examines historical and contemporary drug use and policy efforts, including secondary problems affiliated with drugs, the War on Drugs and its impact, nationally and internationally. Prerequisite: junior/senior standing.

422-3 White Collar Crime - [BSS, DSS] (Same as SOC 422) An examination of the nature, extent, and distribution of white-collar crime as well as its causes, correlates and control. Prerequisite: CJ or SOC 272, and junior/senior standing or permission of instructor.
454-3 Capital Punishment - [SS] Explores the history, practice, and legal status of the death penalty in the United States and other countries.

464-3 Mental Health and the Criminal System - [SS]
Explores treatment of mentally ill defendants by police, courts and corrections. Insanity defense, trial competency, guardianship, civil commitment and court diversion initiatives for such defendants are discussed. Prerequisite: SOC 111, junior/senior standing.
465-3 Theories of the Just Society - [SS] 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. Prerequisite: Junior/ Senior Standing.
470-3 Sociology of Deviance (same as SOC 470) - [SS]
Behavior such as prostitution, drug use, murder, racism, sexual variances, rape and insanity examined theoretically and empirically.
472-3 Explaining Crime - [BSS, DSS] (Same as SOC
472) Examination of the relationship between classical and contemporary criminological theory, research, and policy. Prerequisites: CJ or SOC 272, and junior/senior standing or permission of instructor.
488-3 Supervised Internship/Senior Assignment - 140 hours of supervised work in a criminal justice organization culminating in a written and oral presentation to CJ faculty relating the experience to course work. Prerequisite: CJ
majors only with senior standing and completion of at least 18 hours of CJ course work.

\section*{Culture, Ideas and Values (CIV)}

115-6 Freshman Seminar: Culture, Ideas and Values - [SKILLS/INTRO] A multi-disciplinary core course for freshmen, integrating introductory and skills course contents through lecture, discussion groups, group projects and individual writing assignments. Each of the courses within the freshman seminar group chooses a specific topic as an entryway to a range of cultures, including the culture of the present day. Students will learn to read the "texts" of these cultures (where a text can be a poem, a ritual, an account of a battle, a love song, a technology ...) for an understanding of underlying ideas and values.

\section*{Curriculum and Instruction (CI)}

200-2 Introduction to Education - Assessment of teaching as a career through personal observations and discussion of schools, teachers' roles, teaching as a profession. Off-campus visits to schools required outside class time. Prerequisites: 30 semester hours and 2.5 GPA .
301-3 Understanding the Pre-Primary Child - Characteristics of infants, toddlers, and young children (birth through age 6); study and observation in formal and informal settings.
307-3 Middle Level Philosophy, Organization and Curriculum - Explores middle school topics including the philosophy, curriculum and structure of middle schools, as well as instructional methods for the middle level learner. Prerequisite(s): admission to elementary education program, EPFR 315 and EPFR 320 (concurrent enrollment in one is permissible).

311-1 Elementary/Middle Level Field One Experience Current educational theory and practice as they relate to field experience: Two half-day clinical placements in elementary/ middle level classrooms with introductory level experiences and responsibilities. Prerequisite: admission to elementary education program.

312-1 Elementary/Middle Level Field Two Experience Current educational theory and practice as they relate to field experience: Two half-day clinical placements in elementary/ middle-level class rooms with continued introductory level experiences and responsibilities. Prerequisite: 311 .
314-1 to 3 Elementary/Middle Level Methods - Current educational theory and practice; processes and underpinnings of teaching and learning in elementary education.
Prerequisite: consent of instructor.
315a-2 Methods of Teaching in the Secondary School Teaching skills for secondary students focusing on effective teaching research and its application to the secondary classroom. Prerequisite: consent of advisor.
315b-2 Methods of Teaching in the Secondary School Teaching skills for secondary students focusing on participant observation skills, model teaching, discipline techniques, content teaching. Prerequisite: 315 a or HED 370.

\section*{316-1 Early Childhood Methods in the Classrooms -} Integration of methods and classroom processes in classroom settings. Includes theory, research, and practice related to professional teaching and learning of young children. Prerequisite: admission to EC partnership program.
317-3 Pre-Kindergarten Methods - Instructional strategies appropriate for preschool children, with emphasis on

\section*{Curriculum and Instruction (CI)}
interrelatedness of sensorimotor, conceptual, and social development. Prerequisite: 301 .
323-3 Literacy Development in the Early Years - Literacy development birth through kindergarten with emphasis on designing appropriate reading, writing, listening, and speaking experiences for young children. Also includes suitable children's literature. Field placement required. Taken concurrently with 317 . Prerequisite: 301.
337-1-3 Literacy at Elementary and Middle Levels Application of theory and pedagogy of elementary and middle level literacy and content areas methods; standards, strategies, instructional materials, assessments and technology. Prerequisites: admission to elementary education program or consent of program director.

\section*{338-1-3 Assessment and Instruction of Literacy at} Elementary and Middle Levels - Administration of literacy assessments, data analysis to adapt instruction, material selection, standards and strategies implementation to meet the literacy needs of elementary/ middle level learners. Prerequisites: admission to the elementary education program or consent of program director.
343-3 Social Studies at Elementary and Middle Levels -Application of theory and pedagogy of elementary and middle level social studies methods: standards, strategies, instructional materials, assessments, and technology. Prerequisites: admission to elementary or early childhood education program or consent of program director.
352a,0 5 to 12; b-t 6-12 Student Teaching Secondary Practice teaching in the secondary schools. a) art, b) biology, d) chemistry, f) English, g) foreign language, h) earth science, i) geography, j) political science, k) health, I) history, n) math, o) music, q) physics, t) theater. Prerequisite: registration by secondary education program advisor.
388-0 Curriculum and Instruction Co-op-Education-related work in a school, educational center, or other business or agency under the supervision of a field supervisor, that may be paid experience and/or one that spans multiple terms. Prerequisites: Approval from Career Development Services.
398-0 Curriculum and Instruction Internship- Educationrelated work in a school, educational center, or other business or agency under the supervision of a field supervisor consisting of an unpaid experience that usually lasts one semester. Prerequisites: Approval from Career Development Services.
407-3 The Middle and Junior High School - Theoretical background and evolving trends in middle and junior high education; curriculum review; learning theories; methods of practice; and management techniques. Prerequisites: EPFR 415 and consent of School of Education Student Services advisor.

\section*{410-3 Principles of Early Childhood Education -}

Examination of national and local programs in Early Childhood Education with overview of issues, trends, and research.
411-1 Elementary/Middle Level Field Three ExperienceCurrent educational theory and practice as they relate to field experience: Two full-day clinical placements in elementary/ middle level class rooms with extended experiences and responsibilities. Not for graduate credit. Prerequisites: \(311,312\).
413-3 Literature at Elementary and Middle Levels Surveys literature appropriate for elementary through middle level while focusing on multiple genres, curriculum integration and analysis of literary qualities. Not for graduate credit. Prerequisites: admission to the elementary education program or consent of program director.

\section*{Curriculum and Instruction ( Cl )}

414-3 Teaching Mathematics in Early Childhood
Education - Mathematical concept development for Pre-KGrade 3 teachers, emphasizing developmentally appropriate methodology and instructional strategies, and employing problem solving and inquiry-based learning. Prerequisites: 301, 317, 323.
415-3 Mathematics at the Elementary Level - Application of theory and pedagogy of elementary mathematics methods: standards, strategies, instructional materials, assessments and technologies. Not for graduate credit. Prerequisites: admission to the elementary education program or approval of School of Education Student Services advisors.
416-3 Infant and Toddler Development and Education Study of current theories, knowledge, and practice concerning the growth and development of infants and toddlers. Prerequisite: nine hours of early childhood course work that includes 301 or 410 , or consent of instructor.
421-3 Child, Family and Community Relationships Parent involvement strategies: insight from community agency personnel pertaining to goals of early childhood and elementary programs. Prerequisite: 301 or 410 .
422-3 Health and Nutrition for the Young Child - Nutrition principles related to development of the young child; food service selection; integration of nutrition concepts into early childhood curriculum. Prerequisites: 301,410.
424-3 Literacy Strategies K-3 Literacy instructional strategies to meet the needs of diverse learners in K through grade three. Application of theory and pedagogy during field placement. Prerequisite: 323.
426-3 Educational Assessment of Young Children Formal and informal assessment strategies for teachers of young children. Includes individual and group assessment techniques for children birth through Grade three. Not for graduate credit. Prerequisites: \(301,317\).
433a-n-3 Selected Topics in Curriculum and Instruction -
(a) Curriculum; (b) Language Arts; (c) Science; (d) Reading;
(e) Social Studies; (f) Mathematics; (g) Early Childhood Education; (h) Elementary Education; (i) Middle School Education; (j) Secondary Education; (k) Community College; (I) Adult Education; (m) Environmental; (n) Organization and Supervision. Each segment carries 3 credit hours and each segment may be repeated to a maximum of 9 hours. Prerequisite: consent of instructor.
434-3 Teaching Science and Social Studies in Early
Childhood - 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. Prerequisite: 317 .
440-3 Adolescent Literacy - 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.

\section*{442-3 Science at Elementary and Middle Levels -}

Application of theory and pedagogy of elementary and middle level science methods: standards, strategies, instructional materials, assessments and technology. Not for graduate credit. Prerequisite: admission to the elementary education program or consent of program director.
445-3 Language Arts at Elementary and Middle Levels - Application of theory and pedagogy of elementary and middle level language arts methods: standards, strategies, instructional materials, assessments and technology. Not for
graduate credit. Prerequisite: admission to the elementary education program or consent of program director.
447-3 Reading for Speech Language Pathologists Theories and models of reading as related to instruction; connections between reading and speech difficulties; ways to help children overcome difficulties.

450-3 to 12 Early Childhood Student Teaching - Practice of teaching at early childhood level. Not for graduate credit. Prerequisite: registration by early childhood program advisor.

451a-3 to 10 Elementary Student Teaching - Application of theory to practice of teaching. Not for graduate credit. Prerequisite: registration by School of Education Student Services advisor.
451b-3 to 6 Elementary Student Teaching: Art Application of theory to practice of teaching. Not for graduate credit. Co-requisite: 352a.
451c-3 to 6 Elementary Student Teaching: Music Application of theory to practice of teaching. Not for graduate credit. Co-requisite: 3520.
452-2 Curriculum Integration and Change - A synthesis and application of coursework and change theory to school settings. Study of the relationship between career development and school reform. Not for graduate credit. Prerequisite: registration by School of Education Student Services advisor.

471-3 Teaching in the Multicultural Classroom - Concepts and strategies for developing positive attitudes; increasing knowledge and selecting appropriate materials for teaching children from culturally diverse backgrounds.
490a-n-1 to 6 Independent Projects: Independent Readings and Projects in Curriculum and Instruction (a) Curriculum; (b) Language Arts; (c) Science; (d) Reading; (e) Social Studies; (f) Mathematics; (g) Early Childhood Education; (h) Elementary Education; (i) Middle School Education; (j) Secondary School Education; (k) Community College; (I) Adult Education; (m) Environmental Education; (n) Organization and Supervision. Maximum of 6 total credit hours permitted. Prerequisite: consent of instructor.

495-1 to 6 Selected Topics - Varied content; offered as need exists and as faculty interest and time permit. Maximum of 6 total credit hours permitted. Prerequisite: consent of instructor.

\section*{Curriculum and Instruction in Education (CIED)}

100-3 Introduction to Education - [FRSM] Provides a study of theory and research relating to teaching as a career through personal observations, discussions of schools, teachers' roles, and teaching as a profession. Also offered as New Freshman Seminar Class.
301-1 Field Experience I — Current educational theory and practice as they relate to field experience: One half-day clinical placements in P-12 classrooms with introductory level experiences and responsibilities. This course must be taken concurrently with CIED 310. Prerequisite: CIED 100 or SPE 100 with a grade of \(C\) or better.
302-1 Field Experience II - Current educational theory and practice as they relate to field experience: One full-day clinical placements in P -12 classrooms with increasing experiences and responsibilities. This course must be taken concurrently with CIED 312. Prerequisite: CIED 301 with a satisfactory grade, CIED 310, CIED 311 with a grade of C or better.

303-1 Field Experience III - Current educational theory and practice as they relate to field experience: One full-day clinical placements in P-12 classrooms with increasing experiences and responsibilities. Students participate in the daily activities of the classroom and beginning preparation for the student teaching semester. Prerequisites: CIED 302 with satisfactory grade, CIED 312 with a grade of C or better.

304-1 Field Experience IV - Current educational theory and practice as they relate to field experience; Two full-days clinical placements in P-12 classrooms with intermediate level experiences and responsibilities. Students participate in the daily activities of the classroom and beginning preparation for the student teaching semester.
310-3 Planning for Diverse Learners - [EUSC] Pr Introductory course on diverse characteristics of learners as individual and groups (social, cultural, linguistic and academic) and the impact on teaching and learning. This course must be taken concurrently with CIED 301. Taken concurrently with CI 311 for elementary education majors. Prerequisites: CIED 100 with a grade of C or better.
311-3 Planning for Differentiated Instruction - Introductory course on foundations of institutional planning and planning for differentiated instruction. Includes research on instructional methods appropriate for a diverse and inclusive classrooms. Prerequisites: CIED 100 and SPE 400 with a grade of C or better; CIED 301 with a satisfactory grade and CIED 310 with a grade of \(C\) or better, or concurrent enrollment.

312-3 Language and Communication in Multiple Contexts -Apply phonological, syntactic, morphological, semantic, and pragmatic systems to communicate in diverse socio-cultural contexts through reading, writing, listening, speaking, viewing, and visually representing language. Must be taken concurrently with CIED 302. Prerequisites: CIED 301 with a satisfactory grade, CIED 310, CIED 311 with a grade of C or better.
313-3 Introduction to Educational Assessment Assessment as a component of inquiry. Introduction to the principles of assessment to inform instruction. Understanding types, uses, and application of statistics and assessments. Must be taken concurrently with CIED 303. Prerequisites: CIED 302 with a satisfactory grade, CIED 312 with a grade of \(C\) or better.

\section*{314-3 Creating and Managing Effective Learning}

Environments - Theories of classroom management and design, and how they interact with teaching style to create supportive, challenging, growth enhancing learning environments. Prerequisites: CIED 301 with a satisfactory grade, CIED 310, CIED 311 with a grade of C or better.
321-3 Primary Literacy Assessment and Instruction - Application of literacy theory to assess, plan, and implement a broad range of instruction literacy practices that are appropriate for diverse learners at the primary level. Prerequisites: CIED 302 with a satisfactory grade, CIED 312 with a grade of \(C\) or better.

\section*{322-3 Literacy Composition and Comprehension -} Making informed decisions about appropriate practice for upper and middle level literacy including comprehension and composition assessment, teaching methods, strategies, and instructional materials. Prerequisite: CIED 312 with a grade of \(c\) or better.

441-3 Learning and Teaching Mathematics at the
Elementary Level - Designed around professional principles and standards. Course will focus on mathematics, equity, curriculum, teaching, learning, assessment, technology, and
participation in a professional community. This course must be taken concurrently with CIED 304, 442, 443. Prerequisites: CIED 313 and CIED 321 with a grade of C or better.

442-3 Learning and Teaching Science at the Elementary
Level - This course prepares elementary teacher candidates to implement science into the elementary curriculum using state and national standards as their guide. It must be taken concurrently with CIED 304, 441, and 443. Prerequisites: CIED 313 and CIED 321 with a grade of C or better.
443-3 Learning and Teaching Social Studies at the Elementary Level - Provides a context in which prospective elementary social studies teachers examine, utilizing a critical perspective, the functions, practices, and problematic issues of social studies education. Must be taken concurrently with CIED 304, 441, 442. Prerequisites: CIED 313 and CIED 321 with a grade of C or better.
451-10 Student Teaching at the Elementary Level - Five day a week clinical placement in elementary/middle level classroom with experiences and responsibilities appropriate for pre-service educators in their final semester of a teacher preparation program. Must be taken concurrently with CIED 452. Prerequisites: CIED 304 with a satisfactory grade, CIED 441, CIED 442, CIED 443 with a grade of \(C\) or better.
452-2 Senior Seminar in Professionalism and Ethics of Teaching - An exploration, synthesis and application of previous coursework. Focus on teaching as a profession. Reflection on the change process and professional ethics. Leads to the required CIED Senior Project. Must be taken concurrently with CIED 451 . Prerequisites: CIED 304 with a satisfactory grade, CIED 441, CIED 442, CIED 443 with a grade of \(C\) or better.

\section*{Dance (DANC)}

111-3 The Dance Experience - [BFPA, IFAH] Introductory course to give the student an understanding of how essential components of movement study come together to produce an aesthetic dance experience.
114-3 Movement Fundamentals - [EH, DFAH, FPA] Movement course: Introduction to dance technique, theory, and anatomy. May be repeated to a maximum of 9 hours.
210a,b-2 each Beginning Modern Dance Techniques - [EH, FPA] Movement course: Modern dance theories and techniques. Modern dance theories and techniques. May be repeated to a maximum of 6 hours.

211a,b-2 each Beginning Ballet - [EH, FPA] Technique class. Fundamentals of classical ballet through Barre and Center exercises.
212a,b-1 each Jazz Dance - [EH, FPA] Technique class. Exploring jazz techniques and performance style. May be repeated to a maximum of 4 hours.
213-1 Beginning Tap Dance - [FPA] Basic tap steps and vocabulary. Tap choreography. May be repeated to a maximum of 3 hours.
214-1 Dance Improvisation - [EH, FPA, DFAH] Developing skills in perception and rapid translation of ideas into dance. May be repeated to a maximum of 4 hours.
220-2 Rhythmic Structure and Analysis - [FPA] Analysis and use of rhythms and compositional forms of music for dance. Prerequisites: \(210 \mathrm{a}, \mathrm{b}\), or consent of instructor.
230-2 Introduction to Laban Movement Analysis - [FPA]
Theoretical and physical applications of Laban Movement

Analysis: Effort/Shape Notation (notation system recording changes in movement qualities with respect to time, weight, space, and energy flow), Space/Harmony (system that describes human movement in relation to space). Prerequisites: 214, 320, or consent of instructor.
240-3 History of Dance - [DFAH, FPA] Development of dance prior to and during the 20th century. Prerequisite: consent of instructor.
250-1 to 2 University Dance Company - [FPA] Dance repertory and performance class. Emphasis on technical and choreographic skills for performance. Admission by audition only. May be repeated to a maximum of 9 hours.
260-1 to 2 Performance/Choreography - [DFAH, FPA] Dance repertory and performance class. Emphasis on technical and choreographic skills for performance. Admission by audition only. May be repeated to a maximum of 9 hours. Prerequisite: consent of instructor.
270-1 to 2 Independent Study in Dance - [DFAH, FPA] Supervised study for students in dance, choreography, or performance. May be repeated to a maximum of 8 hours. Prerequisite: consent of instructor.
310a,b-2 each Intermediate Modern Dance Technique \(-[E H, F P A]\) Movement course: Techniques designed for strength, flexibility, coordination. May be repeated to a maximum of 6 hours.
311a,b-2 each Intermediate Ballet Techniques - [FPA] Additional ballet vocabulary through barre and center work of increased difficulty. May be repeated to a maximum of 6 hours. Prerequisites: DANC 211a,b or consent of instructor.
410a,b-2 each Advanced Modern Dance Techniques [FPA] Theory and technique. Developing advanced skills in dance movement. Preparing kinetic and artistic abilities for performance. Not for graduate credit. May be taken up to 8 credits. Prerequisites: DANC 310a,b or consent of instructor.
411a,b-2 each Advanced Ballet - [FPA] Mastery of ballet vocabulary through advanced barre and center floor work. Not for graduate credit. May be repeated to a maximum of 8 hours. Prerequisites: DANC 311a,b or consent of instructor.
420a/b-2 Dance Composition I - [FPA] Movement studies for solo figure based on exploration of fundamental ingredients of dance and how to organize them into compositional forms.
433-2 Dance Pedagogy and Methodology - [FPA]
Principles and methodologies of dance instruction. Not for graduate credit. Prerequisites: DANC 214, 220.
460-1 to 2 Performance/Choreography - [DFAH, FPA] Credit given for performing in and/or choreographing for regular scheduled dance concerts. Rehearsal time is required. Admission by audition only. May be repeated for a maximum of 4 hours provided that no topic is repeated. Not for graduate credit. Prerequisites: must have completed all Theater and Dance core courses. This restriction does not apply to nonTheater and Dance majors or minors.
470-1 to 2 Independent Study in Dance - [DFAH,
FPA] Supervised study for upper level students in dance, choreography, or performance. May be repeated to a maximum of 8 hours. Not for graduate credit. Prerequisites: consent of instructor.
499-3 Senior Assessment in Dance - [DFAH] Individual/ group projects demonstrating proficiency in dance and General Education skills and knowledge. Not for graduate credit. Prerequisites: Senior Dance major.

\section*{Earth Science (ESCI)}

111-3 Introduction to Physical Geology and Geography - [BPS, EL, INSM] [IAI No. P1 905] Physical geology and geography of the solid Earth. Hydrologic system, weathering, soils, landforms, sedimentary rocks. Tectonic system, magmatism, igneous rocks, crustal deformation, metamorphism.

\section*{Economics (ECON)}

111-3 Principles of Macroeconomics - [BSS, ISS] [IAI No. S3 901] Measurement and determination of national economic activity including production, income, employment, prices; role of government policy in U.S. macroeconomy.
112-3 Principles of Microeconomics - [BSS, DSS] [IAI No. S3 902] Principles and characteristics of the market economy: supply, demand, market equilibrium; household demand, firm cost and supply; market structure, government regulation and deregulation; factor markets.
221-3 Economic History of the United States - [BSS, DSS] Analysis of economic and financial development from colonial times to present; evolution of markets; changing role of government and policies. Prerequisites: 111,112.
301-3 Intermediate Microeconomic Theory - [BSS, DSS] Determination of prices and quantities in markets for goods and services. Theories of consumer behavior, cost structures, factor payments. Firm behavior in alternative markets. Prerequisites: 111, 112 and MS 251.
302-3 Intermediate Macroeconomic Theory - [BSS, DSS] Roles of goods markets and financial markets in the determination of national income and inflation; economic growth and business cycles; fiscal and monetary policy. Prerequisites: 111, 112 and MS 251.
327-3 Social Economics: Issues in Income, Employment and Social Policy - [DSS, EUSC, IGR] Economic aspects of social problems such as poverty, discrimination, and unemployment; economic analysis of social policies such as social insurance, welfare programs, employment legislation, taxation. Prerequisite: 111, 112.
331-3 Labor Economics - [BSS, DSS] An analysis of labor force participation, employment, wage determination, economic stability; investment in human capita; ; trade unionism; collective bargaining; public policy. Prerequisites: 111,112.
341-3 Topics in Economics - [BSS, DSS] Selected topics in economics. May be repeated up to 6 hours provided no topic is repeated.
344-3 Financial Markets - (Same as FIN 344) [SS] Functions and practices of domestic and international debt markets; recent structural changes. Asset securitization, relationships across financial markets. Management of financial intermediaries. Prerequisite: FIN 320.
345-3 Economics of the Public Sector: National [BSS, DSS] Role of government in U.S. economy; federal expenditures, revenue, and debt; evaluation of government policy including analysis of taxes, grants, public services. Prerequisites: 111, 112.
350-3 Economics and Ethics-[BSS] A cross-disciplinary approach using economics to explore important everyday issues, such as market exchange, sale of human organs, availability of payday loans, and corporate responsibility. Prerequisites: 111 and 112 with C or better.

361-3 Introduction to International Economics - [BSS, DSS, EGC, II] Survey of causes and composition of trade between nations; barriers to trade; balance of payments; foreign exchange markets; international monetary markets and policy. Prerequisites: 111, 112.

\section*{400-3 Quantitative Methods for Economics and} Business Analysis - (Same as Fin 400) [SS] Applications of mathematical tools to economic and business analysis; emphasis on using calculus and linear algebra in economic and business models. Prerequisites: ECON 301, 302, MS 250 or consent of instructor.
415-3 Econometrics -(Same as FIN 415) [SS] Empirical research methodology and ethics. Hypothesis testing and predicting with OLS regression. Estimation with violations of classical assumptions. Multicollinearity problems; dummy variables; model specification. Will not count toward MA or MS in Economics and Finance. Prerequisites: 301 and 302 or consent of instructor, MS 251 with a grade of C or better.
417-3 Business Forecasting - (Same as FIN 417) [SS] 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. Prerequisites: 301 and 302 or consent of instructor, MS 251 with a grade of C or better.

\section*{428-3 Applied Microeconomics - [SS] Applies}
microeconomic theory to business decision making. Focus is on applications/cases; understanding how to apply economic tools to variety of business problems. Prerequisite: ECON 301 with grade of C or better.
435-3 Competition and Public Policy - [BSS, DSS] Economic implications of alternative market structures. Investigation of impact of concentration, economies of scale, advertising, and conglomerates on business and society. Prerequisite: ECON 301 or 528 or consent of instructor.
439-3 Economics of Sports - [SS] 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.
445-3 Economics of the Public Sector: State and Local - [BSS, DSS] Public expenditure and taxation; intergovernmental fiscal relations; budgeting; grants; public choice. Prerequisites: 111, 112.
450-3 International Finance-[EGC, II,SS] (Same as FIN 450) International monetary environment and institutions. Determinants of foreign exchange rates and risk management. Valuation and portfolio analysis of international stocks and bonds. Foreign investment analysis. Prerequisite: FIN 320.
461-3 International Trade Theory and Policy - [BSS, DSS, EGC, III Theory of causes and composition of trade; comparative advantage; tariff and nontariff barriers to trade; economic integration; commercial policy. Prerequisite: 301 .
490-1 to 6 Independent Study in Economics - [SS]
Investigation of topic areas. Individual or small group readings under supervision of faculty member. Will not count toward MA or MS in Economics and Finance. Prerequisites: consent of instructor and department chairperson. May be repeated to a maximum of 6 hours.

\section*{Educational Psychology, Foundations and Research (EPFR) Electrical and Computer Engineering (ECE)}

\section*{Educational Psychology, Foundations and Research (EPFR)}

315-1 to 3 Educational Psychology - [SS] Human Learning and development as applied to school environment. Emphasis on cognitive process; cognitive development; behavior; classroom evaluation. May be repeated up to 3 hours.
320-3 Foundations of Education in a Multicultural Society
- Philosophical, historical, social and cultural foundations of education in a multicultural society, with emphasis on understanding education in context to improve teaching practice.
415-3 The Middle School Learner - 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: 315,320 , or graduate standing.

451-3 Gender and Education - [EUSC, IGR] (Same as WMST 451) Policies and practices related to sex-role stereotyping, teacher expectations and gender, curricular bias, discrimination, personnel policies, strategies for change.

\section*{Electrical and Computer Engineering (ECE)}

198-0 Electrical and Computer Engineering Work
Experience I - Supervised work experience with agency, firm or organization which uses engineers. Intended for students who have part-time cooperative experience jobs. Limited to students enrolled in more than 6 credit hours. Prerequisite: declared major in electrical and computer engineering.
145-3 Introduction to Computer Programming - [BICS, SKCP] Specification, design, implementation, testing, debugging, maintenance, and documentation of computer programs. Control structures, functions, data abstraction, and arrays. Java, \(\mathrm{C}++\), or a similar programming language. Prerequisites: MATH 120 with a grade of \(C\) or better.

\section*{199-0 Electrical and Computer Engineering Cooperative} Education I - Supervised work experience with agency, firm, or organization which uses engineers. First work period of five year academic/work experience program. Prerequisites: sophomore standing in electrical engineering and consent of engineering co-op advisor.
210-3 Circuit Analysis I - DC and AC steady-state circuit analysis. Loop and nodal analysis, network theorems, phasors, complex power, single-phase and three-phase circuits. Prerequisites: declared major in an engineering discipline, grade of C or better in PHYS 151, PHYS 151L, MATH 150, MATH 152, MATH 250 or concurrent enrollment in MATH 250.
211-4 Circuit Analysis II - Time-domain transient analysis, complex frequency, frequency response, twoport networks, Laplace Transform techniques, impulse response and convolution. Three hours lecture and one laboratory session per week. Prerequisites: declared major in an engineering discipline, grade of C or better in 210, MATH 150, MATH 152, MATH 250, MATH 305 or concurrent enrollment in MATH 305.
282-4 Digital Systems Design - Concepts and design of computer circuitry; binary number systems; study of microprocessors and assembly language programming. Introduction to Verilog HDL. Laboratory exercises involve circuit implementation and programming. Three lecture hours and one laboratory session per week. Prerequisites: declared
major in an engineering discipline, grade of C or better in CS 140 or CS 145.

\section*{298-0 Electrical and Computer Engineering Work}

Experience II - Supervised work experience with agency, firm or organization which uses engineers. Intended for students who have part-time cooperative experience jobs. Limited to students enrolled in more than 6 credit hours. Prerequisite: declared major in electrical and computer engineering.
299-0 Electrical and Computer Engineering Cooperative Education II - Supervised work experience with agency, firm, or organization which uses engineers. Second work period of five year academic/ work experience program. Prerequisites: sophomore or junior standing in electrical engineering and consent of engineering co-op advisor. Prerequisites: sophomore or junior standing in electrical engineering and consent of engineering co-op advisor.
326-4 Electronic Circuits I - Introduction to semiconductors; diode, transistor and FET; small and large signal analysis; logic gate families and design. Three hours lecture and one laboratory session per week. Prerequisites: declared major in an engineering discipline, grade of \(C\) or better in 211 and MATH 305.
340-3 Engineering Electromagnetics - Introduction to engineering electromagnetics. Includes vector analysis, time-harmonic fields, electromagnetic wave propagation, transmission lines, waveguides, antennas. Prerequisites: Declared major in an engineering discipline; grades of C or better in ECE 211, MATH 305, and PHYS 152 and 152L.
341-4 Principles of Electro-Mechanical Energy
Conversion - Basic electromagnetic concepts, energybased torque and force and calculations, transformers, induction machines, synchronous machines, DC machines. Three hours lecture hours and one laboratory session per week. Prerequisite: declared major in an engineering discipline, grade of C or better in 340 .
351-3 Signals and Systems - Basics of continuous and discrete signals and systems. Convolution, Fourier analysis, filtering, modulation and sampling, \(Z\)-transforms. Prerequisite: declared major in an engineering discipline, grade of C or better 211 and MATH 305.
352-3 Engineering Probability and Statistics - Probability, random variables, probability distributions, statistics, Monte-Carlo simulations, estimation theory, decision theory, hypothesis testing, random processes, linear system response to random processes. Prerequisites: declared major in an engineering discipline, grade of C or better in 351 or concurrent enrollment.
365-3 Control Systems - Feedback control systems analysis and applications. Signal flow graphs, state variable approach, modeling, root-locus, Bode plots and steady state errors, Nyquist plots. Prerequisite: declared major in an engineering discipline, grade of C or better in 351 .
375-3 Introduction to Communications - Time-and frequency-domain analysis; bandwidth, distortion, and noise. Baseband pulse transmission; sampling; pulse shaping. Digital and analog modulation techniques. Analysis of bit-error probability. Prerequisites: declared major in an engineering discipline, grade of Cor better in 351,352 .
381-3 Microcontrollers - Microcontroller use in a variety of real-time embedded applications. Students build hardware interfaced to computer using programs they write. Two hours

\section*{Electrical and Computer Engineering (ECE)}
lecture and two lab sessions per week. Prerequisite: declared major in an engineering discipline, grade of \(C\) or better in ECE 282 and ECE 352.

398-0 Electrical and Computer Engineering Work
Experience III - Supervised work experience with agency, firm or organization which uses engineers. Intended for students who have part-time cooperative experience jobs. Limited to students enrolled in more than 6 credit hours. Prerequisite: declared major in electrical and computer engineering.

\section*{399-0 Electrical and Computer Engineering Cooperative} Education III - Supervised work experience with agency, firm, or organization which uses engineers. Third work period of five year academic/work experience program. Prerequisites: junior or senior standing in electrical engineering and consent of engineering co-op advisor.

\section*{404-3 Electrical and Computer Engineering Senior}

Design I — Design overview, design methodologies, design considerations and project communication. Students work in groups to complete the initial design of their capstone design project. Not for graduate credit. Prerequisites: Senior standing in electrical or computer engineering, grade of C or better in 282, 351 and one of the following: 375 or 381.
405-3 Electrical and Computer Engineering Senior Design
II-Realization of senior project designed in 404, including construction, computer simulation, debug, test as required by project to obtain functional prototype. Not for graduate credit. Prerequisite: declared major in an engineering discipline, grade of C or better in 404.
426-3 High Frequency Design - High frequency circuit design with elements of RF engineering. Amplifiers, oscillators, modulators, impedance matching, switching, signal integrity and tuning. Prerequisite: declared major in an engineering discipline, grade of C or better in 326.
427-3 Knowledge-Based Systems - (Same as IE 427) Engineering-oriented perspective on artificial intelligence (A1) technology. General AI concepts specifically knowledge-based (expert) systems applied to engineering problem-solving. Prerequisites: declared major in an engineering discipline; knowledge of one of the familiar computer programming languages (BASIC, C, Fortran or Pascal).
428-3 Analog Filter Design - Active and passive filter synthesis. Standard low-pass approximations: Butterworth, Chebyshev, Inverse Chebyshev, Cauer, Bessel and frequency transformations. Active and passive circuit implementations. Prerequisites: Grade of C or better in ECE 326 and 351.
433-3 Fuzzy Logic and Applications - (Same as ME 433.) Fundamentals of fuzzy sets, basic operations, fuzzy arithmetic, and fuzzy systems. Examples of applications in various fields of engineering and science. Prerequisite: declared major in an engineering discipline.

436-3 Digital Signal Processing - Discrete-time signals and systems; sampling; z-transforms; discrete Fourier transform; difference equations; design and implementation of digital filters; DSP development systems. Prerequisite: declared major in an engineering discipline, grade of C or better in 351.

438-3 Image Analysis and Computer Vision - Image formation, geometrical and topological properties of binary images, image filtering, boundary detection, image segmentation, pattern recognition. Two hours lecture and one laboratory session per week. Prerequisite: declared major in an engineering discipline, grade of C or better in 351.

\section*{Electrical and Computer Engineering (ECE)}

439-3 Digital Image Processing - Fundamentals of human perception, sampling and quantization, image transforms, enhancement, restoration and coding. Two hours lecture and one laboratory session per week. Prerequisite: declared major in an engineering discipline, grade of C or better in ECE 351.

445-3 Power Distribution Systems - Distribution system planning, load characteristics, application of distribution transformers, design of distribution system, voltage-drop and power-loss calculations, voltage regulation, protection and reliability. Prerequisite: declared major in an engineering discipline, grade of C or better in 341.

446-3 Power System Analysis - Synchronous Machines, Power Transformers, Transmission Lines, System Modeling, Load-Flow Study, Economic Operation of Power Systems, Symmetrical Components, Symmetrical and Unsymmetrical Faults, Power System Stability. Prerequisite: declared major in an engineering discipline, grade of \(C\) or better in 341.

447-3 Radar Systems - Introduction to radar systems, including antenna fundamentals, radar equation, radar signals and systems, CW radar, FM-CW radar, pulse radar, tracking radar. Prerequisites: declared major in an engineering discipline, grade of C or better in 340, 351.
455-3 System Modeling and Optimization - Mathematical modeling of engineering systems; dynamic response of electrical and mechanical systems; optimization models in electrical engineering. Prerequisites: declared major in an engineering discipline, grade of C or better in 351 .

465-3 Control Systems Design — Root-locus analysis; frequency-response analysis; design and compensation technique; describing-function analysis of nonlinear control systems; analysis and design by state-space methods. Prerequisites: declared major in an engineering discipline, grade of \(C\) or better in 365.
466-3 Digital Control - (Same as ME 466.) Topics include finite difference equations, z-transforms, state variable representation, analysis and synthesis of linear sampled-data control systems using classical and modern control theory. Prerequisites: declared major in an engineering discipline, grade of C or better in 365 or ME 450.

467-3 Robotics-Dynamics and Control - (Same as ME 454) Robotics, robot kinematics and inverse kinematics, trajectory planning, differential motion and virtual work principle, dynamics and control. Prerequisites: declared major in an engineering discipline, consent of instructor.

475-3 Communication Systems — Digital transmission through band-limited channels; optimum receiver principles; symbol synchronization; channel capacity and coding; Bandpass digital modulation; case studies of communication systems. Prerequisites: declared major in an engineering discipline, grade of C or better in 375 .

476-4 Electronic Circuits II - Small signal analysis and frequency response; operational amplifier design; feedback system analysis, stability and compensation; oscillators; A/D and D/A converters. Three hours lecture and one laboratory session per week. Prerequisite: declared major in an engineering discipline, grade of C or better in 326 .

477-3 Network Engineering - Principles and practice of network engineering. The ISO-OSI reference model is used as a framework for examining internet work communication issues. Prerequisite: declared major in an engineering discipline, grade of C or better in ECE 282.

482-3 Microprocessor Systems - 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. Prerequisite: declared major in an engineering discipline, grade of C or better in ECE 282.
483-3 Advanced Digital Systems Engineering - Design of digital systems using a hardware description language, logic synthesis tools, and field of programmable gate arrays. Prerequisites: declared major in an engineering discipline, grade of C or better in ECE 282.
484-3 VLSI/CAD Design - Discussion of CMOS circuits, MOS transistor theory, CMOS processing technology, circuit characterization and CMOS circuit and logic design. Prerequisite: declared major in an engineering discipline, grade of \(C\) or better in 326 .
491-1 to 4 Independent Study — Individual investigation of a topic in Electrical Engineering to be agreed upon with the instructor. May be repeated for a maximum of 6 hours provided that no topic is repeated. Prerequisites: ECE major and consent of instructor.
492-2 to 6 Topics in Electrical and Computer Engineering - Selected topics of special interest; course schedule will include name of topic. May be repeated to maximum of 6 hours so long as no topic is repeated. Prerequisites: ECE major and consent of instructor.

\section*{English (ENG)}

100g-1 Writing Lab - Grammar - Computerized selfinstructional materials for improving writing. Not for English majors or minors.
100r-1 Writing Lab - Rhetoric - Computerized self-instructional materials for improving writing. Prerequisite: 100 g .
101-3 English Composition I-[FW1, SKW1] [IAI No. C1 900] Instruction and practice in analyzing and composing the academic expository essay. Prerequisite: ACT English score of 21 or higher; or placement score; and/or completion of \(A D\) 090a/b or AD 092 or equivalent with a grade of C or better and AD 080/082 or AD 116 ..

\section*{101n-3 English Composition: Non-Native Speakers -}
[FW1, SKW1] Instruction and practice in expository writing, including the paragraph and short essay. NOTE: Admission only by permit from foreign student advisor or instructor.

102-3 English Composition II - [FW2, SKW2] [IAI No. C1 901] Builds upon the analytical and writing skills developed in 101 with emphasis on argumentation and critical synthesis of information based on research. Prerequisite: a grade of C or higher in 101.

\section*{102n-3 English Composition: Non-Native Speakers -} [FW2, SKW2] Instruction and practice in expository writing, including the essay and research paper. NOTE: Admission only by permit from foreign student advisor or instructor. Prerequisite: A grade of C or better in 101.
111-3 Introduction to Literature-[BHUM, IFAH] [IA I No. H3 900] Representative works in world drama, fiction, and poetry. Development of appreciation of literature by understanding themes, purposes, techniques, history. Prerequisite: 101 or 101N.

200-3 Introduction to Literary Study - [HUM] Focuses on literary genres, terminology, and close reading. Required
of English majors and minors; open to prospective English majors and minors. Prerequisite: A grade of C or better in 102.
201-3 Intermediate Composition - [BHUM, DFAH] Builds upon skills developed in ENG 102. Useful for students across disciplines. Focuses on writing for the rhetorical demands of discipline-specific academic audiences and purposes. Prerequisite: A grade of C or better in 102.
202-3 Studies in Drama - [BHUM, DFAH] [IAI No. H3 902] Reading and discussion of classic examples of ancient and modern drama with attention to themes, techniques, and cultural significance.
203-3 Studies in Poetry - [BHUM, DFAH] [IAI No. H3 903]
Reading and discussion of selected examples of British and American poetry, recent and traditional.

204-3 Studies in Fiction - [BHUM, DFAH] [IAI No. H3 901] Reading and discussion of selected major examples of modern fiction, the short story to the novel. Attention to themes and techniques.
205-3 Introduction to African American Texts - [BHUM, DFAH, EUSC, IGR] African American texts in the form of oratory, sermons, speeches, poetry, fiction, and/or drama. Various literary periods from colonial to contemporary times may be covered.
206-3 Introduction to Film Genre - [BHUM, DFAH] Introduces students to a variety of film genres and develops skills in film appreciation. Prerequisite: ENG 102 with a C or better.

207-3 Language Awareness - [BICS, DFAH, EGC, EUSC] Introductory course in the nature of language. Focus on English language: what language is and how people use it.
208-3 Topics in Early British Literature - [BHUM, DFAH, EGC] [IAI No. H3 912] The in-depth study of a variety of early British literary works; topic varies.
209-3 Topics in Modern British Literature - [BHUM, DFAH, EGC] [IAI No. H3 913] The in-depth study of a variety of modern British literary works; topic varies.
211-3 Topics in Early American Literature - [BHUM, DFAH, EUSC] [IAI No. H3 914] The in-depth study of a variety of early American literary works; topic varies.
212-3 Topics in Modern American Literature - [BHUM, DFAH, EUSC] [IAI No. H3 915] The in-depth study of a variety of modern American literary works; topic varies.
214-3 Topics in World Literature: Ancient to Medieval - [BHUM, DFAH, EGC] The in-depth study of a variety of works in ancient and medieval world literatures; topic varies. Prerequisite: C or better in 102.
215-3 Topics in World Literature: Renaissance to Modern - [DFAH, BHUM, EGC, IC] The in-depth study of a variety of works in Renaissance through modern world literatures; topic varies. Prerequisite: C or better in 102.
290-3 Introduction to Creative Writing - [BFPA, DFAH] Provides an introduction to the basic genres of creative writing (fiction, poetry, drama, creative nonfiction) with an emphasis on craft and the writing process. Prerequisite: C or better in 102.
301-3 Introduction to Literary Theory and Criticism [DFAH, HUM] Selected literary theories, types of criticism, and theorists. Practice in interpreting and writing about literature, and in application of research methods. Prerequisite:C or better in 200 or consent of instructor..

\section*{English (ENG)}

306-3 Introduction to the Bible - [BHUM, DFAH, EGC] Reading and discussion of selected books from the Old and New Testaments and Apocrypha in translation, with attention to their literary, historical, and theological contexts. Prerequisite: C or better in 102.
307-3 Introduction to Shakespeare - [BHUM, DFAH, EGC] [IAI No. H3 905] Shakespeare's life; the Elizabethan theater; representative plays and poems. Prerequisite: C or better in 102.
308-3 Detective Fiction - [BHUM, DFAH] Development of detective short story and novel from nineteenth-century beginnings to the present. Prerequisite: C or better in 102.
309-3 Popular Literature - [BHUM, DFAH] Analysis of literature which has influenced and been influenced by popular culture. May be repeated up to 6 hours provided no topic is repeated. Prerequisite: C or better in 102.

310-3 Classical Mythology and Its Influence - [BHUM, DFAH, EGC] Major Greek and Roman myths: origin, nature, interpretations, and use in the modern world. Prerequisite: C or better in 102

315-3 American Nature Writing - [BHUM, DFAH, EUSC] Works by Audubon, Thoreau, Muir, Austin, Leopold, Abbey, McPhee, Berry, Momaday, Dillard, Silko, and other writers focusing on relations of Americans to American landscapes. Prerequisite: C or better in 102.
332-3 Argument - [BHUM, DFAH] Students will investigate argument history, strategy, and theory; analyze arguments and rhetorical situations-rhetor, audience, purpose, context; and compose and evaluate argumentative prose. Prerequisite: ENG 102 with grade of C or better.

334-3 Scientific Writing - [BICS, DFAH, HUM] Offers students experience in researching, writing, structuring and revising scientific documents. Designed for science and English majors or minors. Prerequisite: C or better in 102.
340-3 Literature of the Third World - [BHUM, DFAH, EGC, IC] Third World literature from antiquity to present; social, political, historical, and philosophical problems reflected in literature. Prerequisite: C or better in 102.
341-3 African-American Women's Writing - [BHUM, DFAH, EUSC, IGR] [IAI No. H3 910D] (Same as WMST 341) Poems, novels, short stories, essays, dramas, autobiography, and other texts by African American women writers during various periods from Colonial to Contemporary times. Prerequisite: C or better in 102.

342-3 Movements in African-American Literature - [BHUM, DFAH, EUSC, IGR] Fiction, poetry, drama, essays, speeches, and autobiography with emphasis on different literary time periods, creative trends, and political movements specific to African American literature. Prerequisite: C or better in 102.
343-3 Topics in African-American Rhetoric and Oratory [BHUM, DFAH, EUSC, IGR] This course introduces students to essays, oratory, slave narratives, speeches and theories relative to abolitionism, captivity, religion and civil-rightsfocused movements in African American texts. Repeatable to 6 credit hours. Prerequisite: C or better in 102.
344-3 Topics in Ethnic Literature - [BHUM, DFAH, EUSC, IGR] This course will examine ethnic literatures from a socioeconomic, political, and historical context. Students will investigate issues of diaspora, class, gender, and resistance in literatures often marginalized. Repeatable to 6 credit hours. Prerequisite: C or better in 102.

345-3 Topics in African American Poetry and Folklore [BHUM, DFAH, EUSC, IGR] Examinations of parallel themes, forms, missions and theories of African American poetry/ folklore from ancient origins to Langston Hughes, Gwendolyn Brooks, Rita Dove, blues, rap. Repeatable to 6 credit hours. Prerequisite: C or better in 102.

369-3 Grammatical Analysis - [BICS, HUM] Analysis of formal spoken and written English sentences; encourages critical thinking about conceptions of grammar and greater awareness of our (mostly unconscious) knowledge of language.
370-3 Morphological Analysis - [BICS, DFAH, EGC, EUSC, HUM] An introduction to the analysis of the internal structure of words, and the processes of inflection, derivation, and word formation found in human languages.
388-3 Survey of the History of Rhetoric - [BHUM, DFAH, EGC] Major rhetoric figures, texts, and definitions, beginning with classical origins and continuing to today. Designed for students interested in composition, literature, and criticism. Prerequisite: ENG 102 with C or better.
392-3 Fiction Writing - [BFPA, DFAH] Short story writing, with special emphasis on plot, point of view, description, dialogue, and other elements in the rhetoric of fiction. Workshop format. Prerequisite: C or better in 290.

393-3 Poetry Writing - [BFPA, DFAH] (Same as THEA 394) Writing of poetry and study of poetic fundamentals, including form, imagery, figurative language, and speaker. Workshop setting for critiques of student work. Prerequisite: C or better in 290.

394-3 Playwriting - [BFPA, DFAH] Provides a close acquaintance with a range of theatrical strategies explored by playwrites, and a workshop forum for the development of student's own writing. Prerequisites: C or better in 102.
400-3 Principles of Linguistics - [BICS, DFAH, EGC, EUSC, HUM] 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. Prerequisites: junior standing or consent of instructor.
403-3 History of the English Language - [BICS, DFAH, EGC, HUM] Historical survey of major phonological and grammatical changes in English language from its IndoEuropean antecedents to the present. Prerequisites: junior standing or consent of instructor.
404-3 Chaucer: Canterbury Tales - [BHUM, DFAH, EGC] The Canterbury Tales read in Middle English. Prerequisite: C or better in 102; junior standing or consent of instructor.
405-3 Pragmatics - [BICS, HUM] Study of principles controlling how implicit levels of meaning are expressed in language and how context influences the interpretation of meaning. Prerequisite: junior standing or consent of instructor.
406-3 Old English Language - [DFAH, HUM] Sounds, grammar, and vocabulary of the Old English Language, including readings in Old English poetry and prose. Prerequisite: C or better in 102; junior standing or consent of instructor.
408-3 Phonological Analysis - [BICS, DFAH, EGC, EUSC, HUM] Principles of linguistic analysis and interpretation as applied to sound systems of language. Prerequisite: junior standing or consent of instructor.
409-3 Syntactic Analysis - [BICS, DFAH, EGC, EUSC, HUM] Principles of syntactic analysis and interpretation as applied to clause and sentence level structures. Prerequisite: junior standing or consent of instructor.

410-3 Rhetoric, Writing, and Citizenship - Examination of rhetoric's role in US citizenship both past and present. Students will write analytical and persuasive documents. Service learning project required. Prerequisite: ENG 102 with grade of C or better.
411-3 Internship in Writing - Involvement in developing workplace writing. Supervised by selected faculty member and cooperating site. Prerequisite: ENG 102 with grade of C or better.
412-3 Digital Literacies - [BICS, DFAH, EGC, HUM] Students will investigate digital literacy - electronic technologies, discursive practices, and cyberspaces. Analysis and assessment of digital artifacts, cultures, and texts. Prerequisite: ENG 102 with grade of \(C\) or better.
416-3 Language and Society - [BICS, EGC, EUSC, HUM] Relationships among language, society, and culture, and their implications for education and intercultural communication. Topics include language variation, socialization, and ethnography of communication. Prerequisite: junior standing or consent of instructor.
417-3 Language and Ethnicity - [BICS, DFAH, EGC, EUSC, HUM] The course will introduce students to linguistic thought through definitions of ethnicity, case studies of diverse language communities, ethnic crossing via language, and inter-ethnic communication. Prerequisite: Junior standing or higher, or signed consent of instructor.
418-3 Language Endangerment and Death - [BICS, DFAH, EGC, EUSC, HUM] An introduction to the concept of linguistic diversity as well as the socio-political and economic factors presenting threats to this diversity. Prerequisite: Junior standing or higher, or signed consent of instructor.
420-3 Topics in Film Studies - [BHUM, DFAH] Variable topics course focusing on the history and aesthetic development of one or two film genres, styles or historical periods. Prerequisite: ENG 102 with C or better, Junior standing or consent of instructor.
432-3 Major American Writers of the 20th Century [BHUM, DFAH, EUSC] Short prose by authors such as James, Cather, Faulkner, O'Connor, Hemingway, Fitzgerald, and Wright. Prerequisite: ENG 102 with a minimum grade of C.
443-3 Prosody - [BHUM, DFAH] Students will both study and write metrical poetry. All aspects of versification will be considered. For both literature majors and creative writing minors. Prerequisite: 102 with a minimum grade of C .
444-3 Creative Nonfiction - [FPA] 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. Prerequisite: ENG 290.
445-3 Young Adult Literature - [HUM] 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. Prerequisite: 102 with a minimum grade of C; junior standing or consent of instructor.
446-3 Studies in African-American Literature - [BHUM, DFAH, EUSC, IGR] 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. Prerequisite: \(C\) or better in 102; junior standing or consent of instructor.

\section*{457-3 Topics in Postcolonial Literature and Criticism -}
[BHUM, DFAH, EGC, EUSC, IGR] Examination of Postcolonial
texts novels, poems, plays, 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. Prerequisite: C or better in 102; junior standing or consent of instructor.
463-3 Topics in Literary Periods - [BHUM, DFAH] 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. Prerequisite: junior standing or consent of instructor.
464-3 Topics in Forms and Genres - [BHUM, DFAH] 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. Prerequisite: junior standing or consent of instructor.
465-3 Special Topics - [DFAH] Special topics in literature, linguistics, rhetoric and composition, and creative writing. Prerequisite: ENG 102 with grade of C or better; junior standing or consent of instructor.
468-3 Second Language Acquisition - [BICS] Examination of issues and theories applicable to understanding process of second language development. Prerequisite: Junior standing or consent of instructor.
470-3 Methods and Materials for K-12 ESL Teaching[EUSC, BICS] Examination of techniques and materials for teaching English as a Second Language in K -12 settings.
471-3 Shakespeare - [BHUM, DFAH, EGC] The indepth 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. Prerequisite: C or better in 102; junior standing or consent of instructor.
472-3 Assessment and Testing in ESL - [BICS] Examination of issues and methods for assessing oral and written proficiency in English as a Second Language. Prerequisite: junior standing or consent of instructor.
473-3 Milton - [BHUM, DFAH, EGC] Paradise Lost and other works such as Samson Agonistes, Paradise Regained, Lycidas, Comus, and selected prose. Prerequisite: C or better in 102; junior standing or consent of instructor.
474-3 Bilingualism and Bilingual Education - [BICS, EUSC] An introduction to cognitive, linguistic, and social perspectives on bilingualism, and the history and politics of bilingual education in the U.S. Prerequisite: Junior standing or consent of instructor.
475-3 Methods of Teaching Secondary English: Literature and Culture - Approaches to and issues in teaching literature and culture at the secondary level. Must be seeking secondary ELA certification. Prerequisite: C or better in 102 or consent of instructor.
476-3 Practicum in English as a Second Language - This course is designed for students who need to gain supervised experience teaching ESL for the purposes of the state ESL endorsement. Prerequisite: 470 or 542.
477-3 Morrison - [BHUM, DFAH, EUSC, IGR] Reading and analysis of the works of major contemporary American author Toni Morrison. Prerequisite: 102 with a grade of C or better; junior standing or consent of instructor.

478-3 Studies in Women, Language, and Literature
- [BHUM, DFAH, EUSC, IGR] (Same as WMST 478)

Relationships among society, gender, language, and literature:

\section*{English (ENG)}

Environmental Sciences (ENSC)
ways women are affected by and depicted in language and literature; literature written by women; feminist criticism. Topic varies; may be repeated to a maximum of 6 hours so long as topic is not repeated. Prerequisite: C or better in 102; junior standing or consent of instructor.
479-3 Major Authors: Shared Traditions [BHUM, DFAH]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 so long as authors and topic are not repeated. Prerequisite: C or better in 102; junior standing or consent of instructor.
480-3 Major Authors: Crossing Boundaries - [BHUM, DFAH, EUSC, IGR] 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. Prerequisite: 102 with grade of C or better.
482-3 Technology and Literature - [BICS] Analysis of digital theory, electronic environments, hypertextual editing, and born-digital literatures. Prerequisite: C or better in 102; junior standing or consent of instructor.

\section*{485-3 Methods of Teaching Secondary English:}

Composition and Language - Approaches to and issues in teaching composition and language usage at the secondary level. Prerequisite: must be seeking secondary ELA certification; C or better in 102; junior standing or consent of instructor.

486-3 Teaching Creative Writing - Seminar on the teaching of creative writing, with an emphasis on poetry and/or fiction. Prerequisite: junior standing or consent of instructor.
489-3 Style and Intentionality - A writing course on the study of style. The aim: to study stylistic conventions and innovations. The course is both theoretical and practical.
490-3 Advanced Composition - [BHUM, DFAH] Writing sophisticated expository prose. Review of grammatical matters as needed; emphasis on clarity, organization, effectiveness, and flexibility. May be repeated once for credit with permission. Prerequisites: C or better in 102; junior standing or consent of instructor.
491-3 Technical and Business Writing - [BICS] 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. No experience in computers and software necessary. Prerequisites: C or better in 102; junior standing or consent of instructor.
492-3 Advanced Fiction Writing - [FPA] Advanced seminar in short story writing. Includes readings in fiction and a study of the psychology of creativity, fiction markets, experimental fiction. Workshop format. Prerequisite: C or better in 392 or consent of instructor.
493-3 Advanced Poetry Writing - [FPA] Advanced workshop in writing poetry. Prerequisite: C or better in 393 or consent of instructor.
494-3 Literary Editing - Principles of literary editing, primarily of fiction and poetry. Examination of poetic expression. Prerequisite: C or better in 102; junior standing or consent of instructor.
495-3 History of Critical Theory - [BHUM, DFAH] Major critical theories from Plato to the present, including practice in writing criticism. Prerequisite: C or better in 102; junior standing or consent of instructor.

496-3 Scholarly and Critical Editing - Editorial preparation of copy for scholarly and critical journals in English language and literature. Prerequisites: 101, 102, and junior standing.

497A-3 Senior Seminar - Variable topics course required of English majors that provides intensive study and culminates in a research paper. Prerequisite: C or better in 301, or consent of instructor. Must be a senior English major. Not open to graduate students.
498-3 Tutorial in Creative Writing - Independent study designed primarily for creative writing minors. May be repeated once for credit. Not for graduate credit. Prerequisites: C or better in 492 or 493; consent of instructor.

499-1 to 3 Readings in English - Independent study in specific area of interest. Extensive reading. For English students only; may be repeated to a maximum of 6 hours. Prerequisite: approval of advisor and instructor.

\section*{Environmental Sciences (ENSC)}

111-3 Survey of Environmental Sciences and Sustainability - Biological, chemical, physical, political, and social aspects of environmental problems; Sustainability in food production, energy use, conservation, and resource management; Current major environmental challenges.
120-1 Survey of Environmental Sciences - Survey of the biological, chemical, physical, political and social interactions which constitute environmental problems and the consequences of proposed solutions.
210-3 Applied Research Methods - [BPS, DNSM] Research methods for the analysis of environmental problems. Survey research and other data collection techniques. Collection, interpretation, and critical evaluation of data.
220-3 Principles of Environmental Sciences - [BPS, DNSM] System approaches to policy analysis of air, soil, and water environments, land use, energy supplies, and other resources using biological, ecological, physical and chemical principles.

\section*{220L-1 Principles of Environmental Sciences Laboratory} - [BPS, DNSM, EL, LNSM] Laboratory exercises to introduce system analysis of air, soil, and water environments, land use, energy supplies, and other resources using biological, ecological, physical and chemical principles. Prerequisite: current or previous enrollment in 220.

\section*{330-3 Environmental Health and Waste Management}
- [DNSM, EGC, II, LS] (same as BIOL 330) Introduction to human health effects of environmental hazards of a biological or physical nature in food, water, soil, animals and wastes. Prerequisites: BIOL 111 and CHEM 111; or BIOL 150; or equivalent(s); or consent of instructor.
340-3 Ecosystem Management and Sustainability [BLS, DNSM] Management of natural resources through the adaptive and community-based conservation approaches, with an emphasis on developing sustainable ecosystems. Prerequisites: BIOL 111 or equivalent or consent of instructor.
402-3 Environmental Law - [DSS, SS] Principle issues in environmental law and the judicial interpretation of important environmental statues. Prerequisites: ENSC 220 or consent of instructor.
411-3 Hydrology - [DNSM, PS] (Same as GEOG 411) Hydrologic cycle, major stream systems, and uses of water resources and their relationships to quality and future supplies. Prerequisite: GEOG 111 or consent of instructor.

412-3 Groundwater Hydrology - [DNSM, PS] (Same as CE 412 and GEOG 412) Study of groundwater: occurrence, physical and chemical properties, flow and flow system modeling, relation to rock structure and lithology, contamination of groundwater resources. Prerequisites: GEOG 310, CHEM 113 or equivalents or consent of instructor.

419-3 Science, Experts and Public Policy — Analysis of factors affecting the influence of scientists, planners, and other experts in policy-making. Several cases and controversies will be examined. Prerequisites: ENSC 220 or consent of instructor.

445-3 Conservation Biogeography - (Same as GEOG 416) [LS] 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. Prerequisites: GEOG 316 or consent of instructor.

465-4 Aquatic Ecosystems - [BLS, DNSM, EL, LS] (Same as BIOL 465) Biogeochemistry and community structure of aquatic systems. Three lectures one three-hour laboratory per week. Prerequisites: BIOL 151 and CHEM 121b with grades of C or better.

473-3 Occupational Health — [DNSM, LS] Concepts and details regarding occupational health. Prerequisite: at least one year of college chemistry.
475-3 Chemical Safety Management - [BPS, DNSM] Concepts and details regarding safe use and handling of chemicals as recommended by safety professionals. Prerequisite: at least one year of college chemistry.

491-1 to 3 Readings in Environmental Science Coordinated readings with faculty in the areas of science, politics, law, education, technology and other environmental areas. May be repeated for a maximum of 4 credit hours.
499 1-3 Research in Environmental Sciences - Research projects will be conducted in research facilities of faculty members. Research topics can include environmental problems in Biology, Chemistry, Education, Policy and Technology and Assessment. Prerequisites: ENSC 210 and 220 or consent of instructor.

\section*{Finance (FIN)}

320-3 Financial Management and Decision MakingIntroduction to financial decisions; tools; models. Valuation; capital budgeting; capital structure. Operating decisions and other long and short-term applications. Prerequisites: ACCT 200 with a grade of C or higher and MS 251 with a grade of C or higher (accounting, CMIS, economics or finance, and business administration majors.)
341-3 Topics in Finance - Selected topics in finance. May be repeated to a maximum of 6 hours provided that no topic is repeated. Prerequisite: 320.
344-3 Financial Markets - [SS] (Same as ECON 344) Functions and practices of domestic and international debt markets; recent structural changes. Asset securitization, relationships across financial markets. Management of financial intermediaries. Prerequisites: 320, admission to School of Business.
360-3 Principles of Insurance - Theoretical and applied concepts underlying individual life and health insurance; annuities and property; assessing risk and calculation of premiums. Prerequisite: 320.

400-3 Quantitative Methods for Economic and
Business Analysis - (Same as ECON 400) Applications of mathematical tools to economic and business analysis; emphasis on using calculus and linear algebra in economic and business models. Prerequisites: ECON 301, 302, MS 250 or consent of instructor.

415-3 Econometrics - [SS] (Same as ECON 415) Empirical Research Methodology and Ethics. Hypothesis testing and predicting with OLS regression. Estimation with violations of classical assumptions. Multicollinearity problems; dummy variables; model specification. Will not count toward MA or MS in Economics and Finance. Prerequisites: ECON 301 and ECON 302 or consent of instructor, MS 251 with a grade of C or better, admission to School of Business.

417-3 Business Forecasting - [SS] (Same as ECON
417) Survey of methods to forecast economic and financial conditions and markets for individual products, sectors, or regions. Time series, indicator, econometric, judgmental, and Box-Jenkins techniques. Satisfies research requirement for business programs. Will not count toward MA or MS in Economics and Finance. Prerequisites: ECON 301 and 302 or consent of instructor, MS 251 with a grade of C or better.
420-3 Problems in Corporate Finance - In-depth development of analytical decision models; 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: 320 or ACCT 312, admission to School of Business.
430-3 Portfolio Analysis - Portfolio theory, equity valuation models and portfolio performance evaluation; structure of equity markets; effect of taxes and inflation; bond analysis and portfolio immunization; mutual funds. Satisfies research requirement for business program. Will not count toward MA or MS in Economics and Finance. Prerequisites: 320 or 420, admission to School of Business.

431-3 Derivative Securities - Introduction to derivatives; options, forwards, futures, and swaps; trading of derivatives and the arbitrage relationships; pricing of derivatives on equities, debt, commodities and foreign exchange. Prerequisites: 320 or FIN 527, admission to School of Business.
435-3 Real Estate Finance and Investment - Fundamental concepts, investigation and evaluation of real (estate) assets. Single residence; multiple dwellings; commercial properties. Applications based on financial theory and methodology. Prerequisites: 320, admission to School of Business.

440-3 Financial Institutions - Financial management of financial institutions: commercial banks, S\&Ls, insurance companies, other financial institutions. Asset and liability management. Prerequisites: 320, admission to School of Business.

\section*{445-3 Applied Security Analysis and Portfolio}

Management - Topics include financial statement analysis; stock valuation; earnings/dividends projections; dividend and asset pricing models; portfolio management; research report writing. Students manage actual investment fund. Prerequisites: 430, restricted to senior business economics and finance/business administration; finance students.

450-3 International Finance - [EGC, II, SS] (Same as ECON 450) International monetary environment and institutions. Determinants of foreign exchange rates and risk management. Valuation and portfolio analysis of international stocks and bonds. Foreign investment analysis. Prerequisites: 320, admission to School of Business.

460-3 Corporate Financial Analysis and Strategy - Indepth analysis of financial data and stock prices. Study of relationship among financial markets, financial strategy, and welfare of corporate stake holders. Will not count toward MA or MS in Economics and Finance. Prerequisites: 420,; admission to School of Business.

470-3 Sport Financial Management - Financial issues relevant to sports industry. Applying financial analysis in decision making. Will not count toward MA or MS in Economics and Finance. Prerequisite: admission to School of Business.
480-3 Cases and Problems in Corporate Finance Use of case analyses to study financial concepts and techniques. Topics include investment decisions, mergers and acquisitions, long-term and short-term financing. Will not count toward MA or MS in Economics and Finance. Prerequisites: 420, admission to School of Business.
490-1 to 6 Independent Study in Finance - Investigation of topic areas through individual or small group readings under supervision of faculty member. Will not count toward MA or MS in Economics and Finance. Prerequisites: consent of instructor and department chairperson, admission School of Business. May be repeated up to a total of 6 hours.

\section*{Foreign Languages (FL)}

101-4 Elementary Foreign Language I-[FL, SKFL] Listening, speaking, reading, and writing. Culture of target language country. Lab included.
102-4 Elementary Foreign Language II- [EGC, IC, FL, SKFL] Continuation of 101. Lab included. Prerequisite: FL 101 or permission of instructor.
106-3 Word Analysis: Latin and Greek Roots - [BICS, SKLG] Analytic reasoning and logic based upon linguistic word-elements and syntax, practical application to vocabulary building.
111-a-3 Introduction to Foreign Studies: French - [BHUM, EGC, IFAH, IC] Overview of language, development of literature, cultural institutions of French. Only one FL 111 course may be applied toward the General Education requirement. Foreign language majors may count one FL 111 course in a language other than the major toward General Education.
111-b-3 Introduction to Foreign Studies: German - [BHUM, EGC, IFAH, IC] Overview of language, development of literature, cultural institutions of German. Only one FL 111 course may be applied toward the General Education requirement. Foreign language majors may count one FL 111 course in a language other than the major toward General Education.
111-c-3 Introduction to Foreign Studies: Spanish [BHUM, EGC, IFAH, IC] [IAI No. H2 903N] Overview of language, development of literature, cultural institutions of Spanish. Only one FL 111 course may be applied toward the General Education requirement. Foreign language majors may count one FL 111 course in a language other than the major toward General Education.

111-d-3 Introduction to Foreign Studies: Chinese [BHUM, EGC, IFAH, IC] Overview of language, development of literature, cultural institutions, of China. Taught in English. Only one FL 111 course may be applied toward the General Education requirement. Foreign language majors may count one FL 111 course in a language other than the major toward General Education.
111e-3 Introduction to Foreign Studies: The FrenchSpeaking World - [BHUM, EGC, IFAH, IC] Overview of

French colonization in Africa, Asia, North America, and the Caribbean, the decolonization experience, and cultural and ethnic diversity in France today.

121-3 Learning Another Language - [BICS, DFAH]
Systematic methods for learning foreign language presented through lectures and practical exercises.

201-4 Intermediate Foreign Language I — [DFAH] Continued practice in listening, speaking, reading, and writing. Grammar review. Cultural and literary readings, compositions. Lab included. Prerequisite: FL 102 or permission of instructor.
202-4 Intermediate Foreign Language II - [DFAH]
Continuation of 201. Lab included. Prerequisite: FL 201 or permission of instructor.
230-3 Foundations of Celtic Culture - [DFAH, EGC, IC] Overview of ancient Celtic culture from its beginnings to its decline.
330-3 Celtic Culture: Mythology and Religion - [BHUM, DFAH, EGC, IC] Ancient Celtic divinities and mythology, Druidism, and Christianity.
345-3 Literature in Translation - [DFAH, EGC, IC] Works of major authors. May count for major or minor credit in FL with permission of the department and term paper in target language.

350-3 The Celtic Heroic Age - [BHUM, DFAH, EGC, IC] Survey of Irish and Welsh literature of the Celtic Heroic Age, with emphasis on the Tain and the Mabinogion.

390-3 Readings - [DFAH] Selected works of representative authors in student's field of interest. Offered in French, German, Italian, Russian, Spanish, Latin, Greek. Primarily for students with no foreign language concentration, but may be taken for credit in foreign language concentration with consent of instructor. Prerequisites: 202 in appropriate language offered on campus, consent of instructor.
401-3 Comparative Latin and Greek Grammar - [DFAH] Structural similarities and differences between Latin and Greek as they developed from Primitive Indo-European and as they relate to other Indo- European languages. Not for graduate credit. Prerequisite: consent of instructor.
486-3 Language Learning and the Teaching of Foreign Languages - [DFAH] Practical study of second language acquisition, cognitive variations, instructional methodologies, and student testing in foreign language classroom. Required for state certification of all majors intending to teach foreign languages in secondary schools. Prerequisite: FR/GER/ SPAN301 or consent of instructor.
491-3 to 6 Cultural and Language Workshop - [DFAH, EGC, IC] Comparative or contrastive linguistics, advanced methodology and techniques. In-depth study of foreign cultures, travel-study abroad. Supervised projects in foreign studies. Only for studies other than FR, GER or SPAN. May be repeated to a maximum of 6 hours provided that no topic is repeated. Prerequisite: advanced or graduate standing.

\section*{French (FR)}

101-4 Elementary French I- [BICS, FL, SKFL] Listening, speaking, reading, and writing. Culture of French-speaking countries. Lab included.
102-4 Elementary French II — [BICS, EGC, FL, IC, SKFL] Continuation of 101. Lab included. Prerequisite: 101 or placement testing.

\section*{French (FR)}

104-8 Elementary French — [EGC, IC, FL, SKFL] Intensive instruction in listening, speaking, reading, and writing. Culture of French-speaking countries. Lab included. Equivalent to 101 and 102. Must enroll for all 8 hours credit. Check with department chairperson to determine if course will be offered.
201-4 Intermediate French I— [BICS, DFAH, FL, SKFL] Continued practice in listening, speaking, reading, and writing. Grammar review. Cultural and literary readings, compositions. Lab included. Prerequisite: 102, or 104, or placement testing.
202-4 Intermediate French II — [BICS, DFAH, FL, SKFL] [IAI No. H1 900] Continuation of 201. Lab included. Prerequisite: 201 or placement testing.

301-4 Advanced French - [BICS, DFAH, FL, SKFL] In-depth grammar review. Composition and conversation. Lab included. Prerequisite: 202 or consent of instructor.
302-4 Advanced French — [BICS, DFAH, FL, SKFL] Selected topics in grammar, readings, and composition. Lab included. Prerequisite: 301 or consent of instructor.
304-3 Interpretation - [BICS, DFAH, HUM] Oral translation of selected passages, alternating between English and French; development of precision and clarity in both languages. Prerequisite: 202 or consent of instructor.
305-3 Translation - [BICS, Dist.FAH, HUM] Written translation of selected passages, alternating between English and French; development of precision and clarity in both languages. Prerequisite: 202 or consent of instructor.
308-3 French Phonetics — [DFAH, HUM] Articulatory exercises to acquire correct pronunciation; difficulties encountered by speakers of American English. Prerequisite: 202 or consent of instructor.
311-3 Contemporary France - [BHUM, DFAH, EGC] Significant aspects of French culture. Prerequisite: 202 or consent of instructor.
312-3 Quebecois Culture and Literature - [BHUM, DFAH, EGC, IC] Culture, literature, society of Quebec, exploring the distinct identity of this officially French-speaking province, an example of multicultural coexistence in a North American context. Prerequisite: 202.
320-3 Advanced French Conversation - [BICS, DFAH, EGC, HUM, IC] Practice advanced-level conversation. Focus on pronunciation and fluency. Prerequisite: FR 202, minimum grade of D, placement testing or instructor permission.
351-3 Survey of French Literature: Middle Ages through Classicism - [BHUM, DFAH, EGC, IC] Representative prose, poetry, drama; 11th through 17th centuries. Prerequisite: 202 or consent of instructor.
352-3 Survey of French Literature: Enlightenment to the Present - [BHUM, DFAH, EGC, IC] Representative prose, poetry, drama; 18th through 20th centuries. Prerequisite: 202 or consent of instructor.
353-3 Survey of the French Novel - [BHUM, DFAH, EGC] Selected readings; literary and cultural background. Prerequisite: 202 or consent of instructor.
400a, b-2 each Senior Essay in French — Supervised (a) research; (b) preparation of an extensive scholarly paper in French. Not for graduate credit. Prerequisite: 202.
402-3 Business French — [BICS, DFAH, EGC, HUM] Oral and written business expression; specialized terminology and idioms. Not for graduate credit. Prerequisite: 301 or consent of instructor.

\section*{General Business Administration (GBA)}

451-3 Studies in French Literature: Middle Ages through Renaissance - [BHUM, DFAH, EGC, IC] Literary analysis of prose, poetry, drama; 11th through 16th centuries. Not for graduate credit. Prerequisite: 301 or consent of instructor.
452-3 Studies in French Literature: Classicism through Enlightenment - [DFAH, EGC, HUM, IC] Literary analysis of prose, poetry, drama; 17th and 18th centuries. Not for graduate credit. Prerequisite: 301 or consent of instructor.
453-3 Studies in French Literature: Romanticism to Present - [BHUM, DFAH, EGC, IC] Literary analysis of prose, poetry, drama; 19th and 20th centuries. Not for graduate credit. Prerequisite: 301 or consent of instructor.

454-3 to 6 Seminar - [DFAH, HUM] Selected topics in literature or literary criticism. May be repeated to a maximum of 6 hours provided that no topic is repeated.
455-3 French Drama — [DFAH, HUM] Major and typical works.
456-3 Seminar on Women Writers - [BHUM, DFAH, EGC, IC] (Same as WMST 456) Fiction, nonfiction, drama, and poetry. Taught in English. For credit in FL, term paper written in French.

457-3 African and Caribbean Literature of French Expression - [BHUM, DFAH, EGC, IC] Literature of various French-speaking nations. Taught in English. For credit in FL, term paper written in French.
461-3 French Stylistics - [DFAH, HUM] Writing style: application of stylistics to development of skill in written expression. Advanced work in principles of grammar and composition. Prerequisite: 6 hours of 300 -level courses.

491-3 to 6 Cultural and Language Workshop - French -
[DFAH,EGC, HUM, IC] Comparative or contrastive linguistics, advanced methodology and techniques. In-depth study of foreign cultures, travel-study abroad. Supervised projects in French. May be repeated to a maximum of 6 hours provided that no topic is repeated. Prerequisite: advanced or graduate standing.
499-3 Readings in French — [DFAH, HUM] Selected areas of language, literature, and culture. Individual work or small groups supervised by one or more members of French faculty. Prerequisites: senior standing and consent of instructor.

\section*{General Business Administration (GBA)}

301-1 Business Transitions I: Planning for Success School of Business Orientation; development of professional skills; introduction to and practice of business knowledge, interpersonal skills and integration of knowledge and skills. Prerequisite: Admission to School of Business.
402-1 Business Transitions II: Commitment Beyond College - Transition to professional business environment including job search, graduate school and networking. Reinforcement, reflection and integration of business knowledge and interpersonal skills. Prerequisite: Admission to School of Business.
489-0 to 15 Study Abroad - Participation in School's International 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 for undergraduates only. Prerequisites: appropriate language competency, and approval by director of International Exchange Programs, School of Business.

\section*{Geography (GEOG)}

111-3 Introduction to Geography - [BSS, EGC, ISS, IC] Examines physical and human geographic principles in order to understand the spatial distribution of both physical attributes and human activities and their interrelationships.
201-3 World Regions - [BSS, DSS, EGC, IC] Survey of major world areas in terms of population, settlement, and related human occupancy patterns.
202-3 Resource Use and Management - [BLS, DNSM] Fundamentals of basic physical resource utilization; application of environmental conservation and preservation principles.
205-3 Human Geography - [BSS, DSS, EGC, EL, II] [IAI No. S4900N] Geographical principles underlying the location and distribution of people and their activities in relation to the environment.

210-3 Physical Geography - [BPS, DNSM] [IAI No. P1 909] Distribution and interrelation of Earth's physical elements. Selected topics include geodesy, climatology/ meteorology, landforms.
211-3 Meteorology - [BPS, DNSM, EL] Introduction to weather controls and elements, their relationship to human activities; analysis and use of weather maps and forecasts.
270-1 to 2 Physical Geography Laboratory - [BPS, DNSM, EL, LNSM] Introductory laboratory on map interpretation, data analysis, and understanding the distribution and interrelationship of Earth's physical features such as landforms, water, climate regions and biomes. Two laboratory hours per week for each credit hour. May be repeated to a maximum of 2 credit hours. Prerequisites/ Co-requisites: 210, 211, or Consent of Instructor.
300-3 Geography of World Population - [BSS, DSS, EGC, EL, IIJ Analysis of distribution, density, and migration of people; related demographic theories dealing with environment and various socio-economic aspects. Prerequisite: consent of instructor.
301-3 Economic Geography - [DSS, EGC, II, SS] [IAI No. S4903N] Spatial patterns and distribution of economic activities, interaction processes, location theory. Prerequisite: consent of instructor.
303-3 Intro to Urban Geography - [BSS, DSS] Survey of human and environmental factors related to the distribution, interrelations, and internal spatial organization of cities.
310-3 Physical Geology — [DNSM, EL, PS] Composition and structure of the Earth; physical and chemical processes responsible for modifying the Earth and its surface. Laboratory. Prerequisite: ESCI 111 or equivalent.

314-3 Climatology - [DNSM, PS] Survey of climatic controls and elements, classification systems, and distribution of resultant climatic regions. Relationships between climatic elements and landforms. Prerequisite: 211.
315-3 Geomorphology - [DNSM, PS] Processes and structures influencing the shape of the Earth's surface. Prerequisite: consent of instructor.
316-3 Introduction to Biogeography - [DNSM, LS] Survey of spatial and temporal distribution patterns of plants and animals. Includes environmental processes and historical factors affecting these patterns and their value to conservation. Prerequisite: 202 or 210 or consent of instructor.
320-3 Cartography - [DNSM] Introduction to the making of maps, properties, design, and production; use of topographic
maps. Prerequisite: one year of high school algebra and one year of geometry.
321-3 Quantitative Techniques - [BICS, DNSM, EL] Quantitative techniques used in solving geographic problems. The emphasis is on descriptive, inferential and bivariate statistics. Prerequisite: Math 120 or equivalent or consent of instructor.
322-3 Air Photo Interpretation - Methods and techniques used in interpreting aerial photographs for research in physical and social sciences. Prerequisite: 320 or consent of instructor.
330-3 Geography of Europe - [DSS, EGC, IC, SS] Physical settings and geographic patterns of human activities with area descriptions of European countries and particular regions stressing human and environmental relationships.

\section*{331-3 Geography of the Commonwealth of Independent}

States - [DSS, EGC, IC, SS] Physical settings and geographic patterns of human activities with area descriptions of particular Soviet regions stressing human and environmental relationships.

332-3 Geography of Africa - [DSS, EGC, IC, SS] Physical settings and geographic patterns of human activities with area descriptions of African countries and particular regions stressing human and environmental relationships.
333-3 Geography of Asia - [DSS, EGC, IC, SS] Physical settings and geographic patterns of human activities with area descriptions of Asian countries and particular regions stressing human and environmental relationships.
334-3 Geography of Latin America - [DSS, EGC, IC, SS] Physical settings and geographic patterns of human activities with area descriptions of Latin American countries and particular regions stressing human and environmental relationships.
335-3 Geography of North America - [DSS, SS]
Examination of physical settings and geographic patterns of human activities in the United States and Canada; descriptions of particular regions stressing human and environmental relationships.
401-3 Geography of Development - [DSS, EGC, II, SS] 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. Prerequisite: consent of instructor.
402-3 Cultural Landscape - [BHUM, DSS] Identification and analysis, both objective and subjective, of the earth as transformed by human action with emphasis on the contemporary situation. Field trip. Prerequisite: consent of instructor.
403-3 Advanced Urban Geography- [BSS, DSS] 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. Prerequisites: 303 with the minimum grade of C or better, or consent of instructor.
405-3 Geography of Food - [HUM] Examination of food production and distribution, the relationship between food and culture from a geographic perspective. Prerequisites: 205 or consent of instructor.

406-3 Political Geography - [DSS, EGC, II, SS] Fundamental principles of geopolitics, geostrategic theory, electoral geography, and their application to the United States and other major world regions. Prerequisite: junior or senior standing.

408-3 Snow and Ice Processes - [DNSM, PS] This course (1) focuses on the properties, processes and distribution of seasonal and perennial snow; (2) provides an overview of glaciers; (3) and studies snow and ice climatology. Prerequisites: 314 or consent of instructor.
410-3 Soils - [DNSM, PS] Formation processes, classification, distribution, use, problems associated with earth surface materials. Field trip. Prerequisite: ESCI 111 or consent of instructor.
411-3 Hydrology - (Same as ENSC 411) [DNSM, PS] Hydrologic cycle, major stream systems, uses of water resources and their relationships to quality and future supplies. Prerequisite: Math 120 or equivalent or consent of instructor.
412-3 Groundwater Hydrology - (Same as CE 412 and ENSC 412). [DNSM, PS] Study of groundwater: occurrence, physical and chemical properties, flow and flow system modeling, relation to rock structure and lithology, contamination of groundwater resources. Prerequisites: college algebra, CHEM 113 or equivalents or consent of instructor.

414-3 Floods, climate and the environment - [DNSM, PS] Examines the nature of floods, the hydrologic, climatic, and anthropogenic factors that lead to floods and the effects of floods on humans and the environment. Prerequisite: GEOG 411 or permission of instructor.

415-3 Animal Geography - [LS] Principles of biogeography as applied to animals, focusing on past and present distribution patterns considering environmental circumstances and animal capabilities. Field trips. Prerequisite: 316 or consent of instructor.
416-3 Conservation Biogeography - (Same as ENSC 445). [LS] Analysis of biogeography principles and conservation problems. Assess changes in biosphere distributions and extinction due to human activity. Evaluate strategies to maintain biodiversity. Field trips. Prerequisite: 316 or consent of instructor.

418-3 Geographic Information Systems (GIS) - [DNSM] Concepts, basic theory, and principles of GIS using both raster and vector data models in a PC environment. Prerequisite: consent of instructor.
419-3 Thematic Cartography - [DNSM] This course offers an in-depth analysis of cartographic techniques, theories, and their application to the design of maps. Prerequisite: 320 or consent of instructor.
420-3 Interactive and Animated Cartography - Investigate and develop alternatives such as interactive maps and map animation to traditional map representations such as static paper maps. Prerequisite: 320
421-3 Digital Elevation Modeling - Processing of digital elevation models and the generation of 3D renderings with digital orthophotos, satellite imagery, digital raster graphics, and/or other 3D features.

\section*{422-3 Remote Sensing and Digital Image Processing}
- [DNSM] Concepts of remote sensing including air-photo interpretation, digital image preprocessing, and classification of satellite-based imagery. Prerequisite: 321 or consent of instructor.
423-3 Computer Mapping - [DNSM] Cartographic design techniques related to computer aided conversion, analysis, and presentation of data. Includes use of Arc View, symbol perception and map design. Prerequisite: consent of instructor.
424-3 Vector-Based Geographic Information Systems (GIS) - [DNSM] Examination of vector topology, digital map transformation, manipulation, analysis, and composition. Prerequisites: 418 or consent of instructor.

425-3 Raster-Based Geographic Information Systems
(GIS) - [DNSM] 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 125 , GEOG 418 or consent of instructor.

426-1 to 6 Field Study - [DNSM] Field investigation of physical and cultural features of the environment. Prerequisite: advanced standing or consent of instructor. May be repeated to a maximum of 6 hours.
427-1 to 6 Internship - Work experiences in public or private agencies. May be repeated to a maximum of 6 hours. Prerequisite: major with senior standing or consent of instructor.
428-1 to 6 Travel Study Course - Enrichment through travel, supervised study, and readings on areas visited. May be repeated to a maximum of 6 hours.
429-3 Storm Chasing and Assessment Field Course - [PS] Exposes students to the unique environments and hazards associated with local thunderstorms. Students will benefit from lecture and participation in event assessment. Prerequisite: 314 , geography major or minor, and instructor's consent.
430-3 Global Climate Change - [BPS, DNSM, II] 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. Prerequisite: GEOG 211, GEOG 314 with grades of "C" or better.
440-3 Teaching of Geography - [SS] Methods and techniques of teaching geography in primary and secondary classroom situations. Emphasis on teaching devices, illustrative materials, literature. Prerequisite: junior standing.
450-3 to 6 Topics in Geography - Specific topics in geography based on faculty expertise. May be repeated to a maximum of 6 hours. Prerequisite: Geography major with senior standing or consent of instructor.
451-3 to 6 Topics in Human Geography - [SS] Specific topics in human geography based on faculty expertise. May be repeated to a maximum of 6 hours. Prerequisite: Geography major with senior standing or consent of instructor.
452-3 to 6 Topics in Physical Geography - [PS] Specific topics in physical geography based on faculty expertise. May be repeated to a maximum of 6 hours. Prerequisite: Geography major with senior standing or consent of instructor.
453-3 to 6 Topics in Regional Geography - [SS] Specific topics in regional geography based on faculty expertise. May be repeated to a maximum of 6 hours. Prerequisite: Geography major with senior standing or consent of instructor.
454-3 to 6 Topics in Geographic Techniques - Specific topics in geographic techniques based on faculty expertise. May be repeated to a maximum of 6 hours. Prerequisite: Geography major with senior standing or consent of instructor.
470-2 to 4 Advanced Physical Geography Laboratory [PS] Application of field and laboratory methods, from study design to data collection and analysis, used to study the earth's physical features and processes. May be repeated to 4 credit hours. Prerequisite: Consent of instructor.
490-1 to 3 Tutorial in Geography — Individual and small group conferences with faculty to examine geographic topics. May be repeated to a maximum of 6 hours. Prerequisites: consent of advisor and instructor.
499-3 Senior Assignment - Research paper of an approved topic in Geography; required for Graduation. Not for graduate credit. Prerequisite: 321 , senior standing.

\section*{German (GER)}

101-4 Elementary German I- [BICS, FL, SKFL] Listening, speaking, reading, and writing. Culture of German-speaking countries. Lab included.

102-4 Elementary German II - [BICS, EGC, IC, FL, SKFL] Continuation of 101. Lab included. Prerequisite: 101 or placement testing.

104-8 Elementary German — [EGC, IC, FL, SKFL] Intensive instruction in listening, speaking, reading, and writing. Culture of German-speaking countries. Lab included. Equivalent to 101 and 102. Must enroll for all 8 hours credit. Check with department chairperson to determine when course will be offered.

201-4 Intermediate German I - [BICS, DFAH, FL, SKFL] Continued practice in listening, speaking, reading, and writing. Grammar review. Cultural and literary readings, compositions. Lab included. Prerequisite: 102, or 104, or placement testing.
202-4 Intermediate German II — [BICS, DFAH, FL, SKFL] [IAI No. H1 900] Continuation of 201. Lab included. Prerequisite: 201 or placement testing.
301-4 Advanced German — [BICS, DFAH, FL, SKFL] Indepth grammar review. Composition and conversation. Lab included. Prerequisite: 202 or placement testing.
302-4 Advanced German — [DFAH, FL, SKFL] Selected topics in grammar, readings, and composition. Lab included. Prerequisite: 301 or consent of instructor.
303-3 German Language Structure - [BICS, DFAH, HUM] Technical aspects of German language. Prerequisite: 202 or consent of instructor.
304-3 German in Commerce and Government - [BICS, DFAH, HUM] Selections from publications related to German commerce and government. Prerequisite: 202 or consent of instructor.

305-3 Technical German — [HUM] Contrastive analysis; reading skills in scientific and other technical fields. Prerequisite: 202 or consent of instructor.

311-3 German Culture - [DFAH, EGC, HUM, IC]
Significant aspects of German culture; their development and manifestation in contemporary Germany. Prerequisite: 202 or consent of instructor.
320-3 Advanced German Conversation - [BICS, DFAH, EGC, HUM, IC] Practice in advanced-level conversation. Focus on pronunciation and fluency. Prerequisite: 202, placement testing, or instructor permission.

351-3 Survey of German Literature: Middle Ages Through Romanticism - [BHUM, DFAH, EGC, IC] Selected readings, literary and cultural background. Prerequisite: 202 or consent of instructor.

\section*{352-3 Survey of German Literature: Realism to the} Present - [BHUM, DFAH, EGC, IC] Selected readings, literary and cultural background. Prerequisite: 202 or consent of instructor.
353a-c-3 each Survey of a German Genre - (a) [BHUM, DFAH, EGC, IC] Poetry; (b) [DFAH, HUM] Novelle; (c) [BHUM, DFAH, EGC] Drama. Selected readings; literary and cultural background. Prerequisite: 202 or consent of instructor.

400a,b-2 each Senior Essay in German - [DFAH] Supervised (a) research; (b) preparation of an extensive scholarly paper in German. Not for graduate credit. Prerequisite: 202.

401-3 Development of German Structure - [BHUM, DFAH] Historical development of German language; how modern German structure came into being in standard and main dialects. Not for graduate credit. Prerequisite: 202 or consent of instructor.

402-3 Business German - [BICS, DFAH, HUM, EGC] Everyday business practices in Germany. Specialized vocabulary, correspondence, cultural background. Not for graduate credit. Prerequisite: 301 or consent of instructor.

411-3 German Civilization - [DFAH, EGC, HUM, IC] German-speaking areas of the world; anthropological and social aspects of various cultures. Prerequisite: senior standing in German.
452-3 Faust - [BHUM, DFAH, EGC, IC] Goethe's masterpiece, its background, meaning, and impact on world literature; life and times of Goethe. Prerequisite: 301 or consent of instructor.

453-3 Seminar in German Literature - [BHUM, DFAH, EGC, IC] Selected German literary masterpieces organized by theme, historical period, literary movement, or other criteria.
Not for graduate credit. Prerequisite: 301 or consent of instructor.

454-2 to 4 Seminar - [BHUM, DFAH] 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.

491-3 to 6 Cultural and Language Workshop - German - [DFAH,EGC, IC] Comparative or contrastive linguistics, advanced methodology and techniques. In-depth study of foreign cultures, travel-study abroad. Supervised projects in German studies. May be repeated to a maximum of 6 hours provided that no topic is repeated. Prerequisite: Advanced or graduate standing.
499-3 to 6 Readings in German - [DFAH, HUM] 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. Prerequisites: senior standing and consent of instructor.

\section*{Greek (GRK)}

101-4 Introduction to Greek - [FL, SKFL] Grammar and vocabulary of ancient Greek within context of Greek culture. Reading knowledge through texts adapted from classical authors. Lab included.
102-4 Introduction to Greek - [EGC, IC, FL, SKFL] Continuation of 101. Lab included. Prerequisite: 101.
201-4 Intermediate Greek - [DFAH, FL, SKFL] Development of reading facility. Reading of selected masterpieces in history, poetry, and philosophy. Lab included. Prerequisite: 102 or equivalent.

202-4 Intermediate Greek - [DFAH, FL, SKFL] [IAI No. H1 900] Continuation of 201. Lab included. Prerequisite: 102 or equivalent.
499a-f-4 each Readings in Ancient Greek - [DFAH, HUM]
(a) Development of lexical and structural competence; (b)

Continuation of a; (c) Selected masterpieces of literature;
(d) History; (e) Poetry; (f) Philosophy. A, b, c must be taken in sequence and are prerequisites to \(\mathrm{d}, \mathrm{e}\), or f , which may be taken out of sequence with consent of instructor. Individual segments may not be repeated for credit. Prerequisite: for \(a, b\), c, consent of instructor.

\section*{Health Education (HED)}

\section*{Health Education (HED)}

111-3 Personal Health - [EH, NFS] This freshman seminar will introduce students to basic concepts in personal health and wellness.

210-3 Sexual Health - [EH] Surveys the dynamics of sexual health as related to overall health. Identifies and examines basic issues in human sexuality as relating to larger society.
220-3 Drug Use and Abuse - [EH] Drug and non-drug alternatives that modify mood and behavior; factors influencing use, effects, and legal control; students' personal values, motivations and choices concerning drug use.
230-3 Emotional health and Stress Management [EH] An introduction of a variety of types of positive and negative emotions and their determinants in addition to their contributions to an individual's overall well-being.

240-3 Introduction to Applied Nutrition - [EH] Primary roles of major nutrients in human body functions. Relationships between these nutrients and health outcomes/ conditions including diabetes, cardiovascular diseases, cancer, osteoporosis and obesity.
300-3 Women's Health - Explores health trends that affect women. Analysis of psychosocial influences on health with particular emphasis on the link between wealth and health.
302-3 Driver Education and Training - Preparation for teaching driver education and training in secondary school. Not open to those wanting to learn to drive. Prerequisite: valid driver's license; for HED majors and minors only.

\section*{305-3 Foundations of Health Promotion and Education -}

History and philosophy of health education; theory and practice of health education programs; role of the professional in various health promotion settings. HED majors and minors only.
313-3 Violence and Injury Prevention - Provides a broad understanding of violence and injury as a public health issue. Stresses importance of prevention initiatives, environmental modifications, legal interventions and advocacy. HED majors and minors only.
334-2 First Aid - American national Red Cross advanced first aid course. Leads to advanced first aid and cardiopulmonary resuscitation (CPR) certification. HED majors and minors only.
350-3 Health Education in the Elementary School Teacher's role in all phases of school health program; appraisal and screening, referral, safety, health planning, curriculum integration, teaching strategies. HED majors and minors only. Prerequisite: HED 111 or consent of instructor.
355-3 Introduction to Public Health — Efforts by agencies and organizations to promote, protect, and restore people's health. Role and collaboration efforts of local, state, national, and global health agencies. Prerequisite: HED 111 and HED majors and minors only.
363-3 Consumer Health Literacy - Consumer health issues related to individual, community, and society. Review, analysis, and application of health and medical terminology literature in promoting health literacy. Prerequisite: HED 111 and HED majors and minors only.
370-3 Instructional Strategies in Health Education Strategies for effectively delivering health education in school and community settings. Analysis of creative technologies, resources, and programs. HED majors and minors only. Prerequisite: HED 305.

375-3 Research Methods in Health - General concepts and foundations of measurement, evaluation, and research; major methods and techniques of research and evaluation. Special emphasis given to conducting small research assignments. HED majors and minors only. Prerequisite: 305.
405-3 Health Counseling - Theories of health behavior and behavior change. Exploration of helping role as it relates to health behavior, health assessment analysis, decision making, problem solving, referral skills. Not for graduate credit. HED majors and minors only. Prerequisite: 305.
410-3 Environmental Health Education and Bioterrorism - People's relationship with their environment; impact relationship has on status of one's health; individual and community roles in promotion of environmental health. Not for graduate credit. HED majors and minors only. Prerequisite: HED 111 or consent of instructor.
415-3 Workshop in Driver Education and Traffic Safety - Safety regulations, demonstration, field trips, supervised research in special areas related to driver education and traffic safety. Not for graduate credit. HED majors and minors only. Prerequisite: 302 or consent of instructor.

420-3 Contemporary and Controversial Issues in Health Investigation of current controversial issues in health and health care. Emphasis on critical analysis and presentation of complex challenges from a public health perspective. Not for graduate credit. HED majors and minors only. Prerequisite: 305 .
443-3 Methods and Materials in Driver Education Strategies for teaching, discussion or research; accident statistics; secondary school programs; testing and demonstrations in the car. Not for graduate credit. HED majors and minors only. Prerequisite: 302 or consent of instructor.
445-1 Driver Simulation - Laboratory method; programmed group instructional system requiring student reaction with filmed driving situations. Not for graduate credit. HED majors and minors only. Prerequisite: 302 or consent of instructor.

455-3 Introduction to Epidemiology - Epidemiologic terminologies. Description and analysis of disease occurrence using appropriate epidemiologic measurements. Exploration of causal relationships. Identification of epidemiologic roles in disease control and prevention. Not for graduate credit. HED majors and minors only. Prerequisite: 355 .

462-1 to 3 Special Topics in Health Education - Relevant health issues; topic and credit hours announced. May be repeated to a maximum of 6 hours so long as no topic is repeated. HED majors and minors only.
464-3 Dying and Death in Contemporary Society Analyzes the relationship between death and health with emphasis on the physiological, medical, psychological, legal, and consumer aspects of dying in contemporary America. Not for graduate credit.

470-3 Sexuality Education - Individual, family, school, and community concerns and approaches. Physiological, psychosocial and environmental factors affecting sexuality as related to learning experience. HED majors and minors only. Prerequisite: 210 and 370.

480-1 to 3 Advanced Concepts of Safety - Special topics course focusing on one or more elements of home, school, occupational, recreational, or community safety. Can be repeated to a maximum of 6 hours. Not for graduate credit. HED majors and minors only. Prerequisite: 313 or consent of instructor.

485-3 Curriculum Development in Driver Education - Structure, content, and approaches of curriculum development as applied to traffic safety based upon highway transportation system operation task analysis. Not for graduate credit. HED majors and minors only. Prerequisite: 302 or consent of instructor.

489-1 to 3 Independent Study in Health Education Independent projects or readings under the supervision of a health education faculty member. May be repeated to a maximum of 6 hours. Not for graduate credit.
490-3 Program Planning in Health Education Principles and approaches of planning programs within the community. Examination of program planning models. Application to various health education settings. HED majors senior standing. Concurrent enrollment in 491 required. Prerequisites: 370 and 375 .
491-3 Program Implementation and Evaluation in Health Education - Principles and practices of health education program implementation and evaluation. Application of selected models and assessment strategies of community health education. Concurrent enrollment in 490 required. HED majors senior standing.
495-3 Grant Writing in Health Education —Practical application in the development of a grant for a social service agency or school. Strategies for exploring funding, collaboration, and preparation of quality proposals. Prerequisites: 490 and 491.

498-3 Senior Professional Seminar - Discussion of topics related to health education; ethics, professional responsibilities, preparation, certification and future trends. Completion of portfolio and senior assignment required. Prerequisites: 490 and 491.

499-3 to 6 Internship in Community Health Education -Supervised experiences in health agencies, clinics, government agencies and other professional settings. Not for graduate credit. Requires consent of instructor and program director. Completed or concurrent enrollment in HED 498.

\section*{History (HIST)}

111a, b, c-3 each History of Western Civilization - [ISS or DSS, IC; BSS, EL, EGC; a I (IAI No. S2902) b II (IAI No. S2902 or S2903) c III (IAI No. S2902 or S2903). (a) the western world from prehistory to the late Antique period (500 AD); the western world from the Medieval period to the Enlightenment (500-1715); (c) the western world from the Enlightenment to the present (1715-Present).
12a,b -3 each World History - [BHUM, DSS, EGC] (a) [IAI No. S2 912N], IC (b) [IAI No. S2 913N], II] (a) Topics in world civilization before 1500; (b) Topics in world civilization 1500 to the present. Required for students seeking teacher certification (K-12).
130-3 History of Black America - [BSS, DSS, EL, EUSC,
IGR] This course examines the experiences of African Americans in the United States. It will also emphasize techniques used by historians to interpret historical change.
200-3 United States History and Constitution: to 1877 - [BSS, DSS, EL, EUSC] [IAI No. S2 900] Political, social, economic and constitutional development.
201-3 United States History and Constitution: 1877-
Present - [BSS, DSS, EL, EUSC] [IAI No. S2 901] Political, social, economic and constitutional development.

300-3 Special Topics - [DSS, SS] Single topic from areas of political, economic and social history. May be repeated to a maximum of 6 hours provided no topic is repeated.

301-3 Historical Methods - [SS] Introduction to historiography, philosophy of history, historical methodology. Required of all undergraduate students with major in history. Prerequisite: junior standing. History majors only.
302-3 Ancient Egypt - [BSS, DSS, EGC, IC] Civilization of Ancient Egypt from prehistoric through Greco-Roman period.

304-3 History of Greece - [BSS, DSS, EGC, IC] From origins of ancient Greece to 30 B.C.

305a,b-3 each Comparative Asian Civilizations - [BSS, DSS, EGC, IC] (a) Antiquity to the 16th Century (b) From 1600 to Present. A historical and comparative exploration of major Asian civilizations, including China, India, Japan, this course will focus on the evolution of critical religious, philosophical, economic and political institutions. Prerequisites: ENG 101; ENG 102.

306a, b-3 each History of Rome - [BSS, DSS, EGC, IC] (a) Republic from origins to 30 B.C.; (b) Principate, 30 B.C. -A.D. 476

308a-3 Imperium and Christianity: Western Europe
300-1000 C.E. - [BHUM, DSS, EGC, IC] Rise of Christianity and formation of medieval society and institutions in Western Europe from Constantine to decline of Carolingian.
308b-3 Medieval Conquests and Kingdoms, 1000-1500
C.E. - [BHUM, DSS, EGC, IC] Diversity of medieval experience in West, from the rise of papacy and Crusades to Hundred Years' War.

320-3 The Renaissance in Europe - [BHUM, DSS, EGC]
Origins and growth of the Renaissance after 1350 in the Italian city-states. Its subsequent spread to Northern Europe.
321-3 Reformation Europe, 1500-1648 - [BHUM, DSS, EGC] History of 16th-century Europe; social, political and cultural dimensions of Protestant and Catholic Reformations, witch-hunts, scientific revolution and wars of religion.
323-3 Social Science Pedagogy - [SS] Designed only for History, Political Science, and Geography Education majors seeking secondary social science certification. Prerequisites: HIST 112a and 112b; HIST 200, 201, or 130, and must receive a minimum grade of " C ."

326-3 Antebellum American History, 1830-1860 - [SS] A survey of the cultural, political, and social history of the United States in the thirty years before the Civil War.

330-3 History of Illinois - [DSS, SS] Political, social, economic and cultural history from earliest times to present.
334a-3 The Westward Movement/Am Hist to 1845 - [BSS, DSS] Immigration, settlements, exploitation of American land since European conquest. Influence on national, economic, political, cultural and social policies: to 1845.
334b-3 The Westward Movement/Am Hist since 1845-
[BSS, DSS] Immigration, settlements, exploitation of American land since European conquest; influence on national, economic, political, cultural and social policies: since 1845.
338-3 The Civil War and Reconstruction - [DSS, SS]
Narrative and interpretation of the era 1850-1877; causes of the war, major military campaigns and Reconstruction.
340-3 Black Freedom Movement, 1955-75 - [BSS, DSS, EUSC, IGR] Civil Rights and Black Power Movements'
dismantling of the old structure of American apartheid. Its transformation into advanced racism. Prerequisites: 130 or junior standing.
344a, b-3 each History of American Diplomacy - [BSS, DSS] Problems and trends in U.S. diplomatic history. Foreign and domestic pressures affecting policy making. (a) To 1919; (b) Since 1919. Prerequisites: (a) 200, (b) 201; or consent of instructor.

345a, b-3 each History of American Business - [BSS, DSS] Development of capitalism, corporations, stock markets, agriculture, banks, unions and international trade. (a) To Civil War; (b) 1860s to present.
352a,b-3 each History of Africa - [BSS, DSS, EGC, (a)[IAI No. S2 906N] IC, (b) [IAI No. S2 907N] II] (a) Africa south of the Sahara, prehistoric to colonial times; (b) Africa south of the Sahara, colonial times to present.
354a-3 Islamic Middle East, 600-1400 CE - [BSS, DSS, EGC, IC] The people and geography of the Middle East. Beliefs and practices of Muslims; and history of the creation of Islamic civilization between 600 and 1400 CE.
354b-3 Ottoman Empire, 1400-1918 CE - [BSS, DSS, EGC, II] The Ottoman Empire from its pre-Islamic Turkish origins through its heydey as a European and Middle Eastern Islamic Empire to its demise during World War I.
354c-3 20th-Century Middle East - [BSS, DSS, EGC, IC, II] Examines the political, social, and cultural history of Middle Easterners from the end of World War I to the present.

356a, b-3 each History of China - [BSS, DSS, EGC, (a)IC, (b) II] (a) Ancient times to 1644. (b) Modern China: 1644 to present.
358-3 History of Japan - [BSS, DSS, EGC, II, SS] Ancient times to present. Emphasis on feudal traditions, response to Western impact, modern transformation.
360a, b-3 each History of Latin America - [BSS, DSS, EGC, (a) [IAI No. S2 910N] IC, (b) [IAI No. S2 911N] II] Emphasis on history of Mexico, Brazil, Argentina, Chile, Peru, and Colombia. (a) From pre-Columbian civilizations to the mid19th century; (b) From mid-19th century until the present.
400-3 Topics in History - [DSS, SS] Selected topics such as biography of a major figure; recent theme in world history; etc. May be repeated to a maximum of 9 hours provided no topic is repeated.

401-3 Historical Research — Senior assignment. Rules of historical research applied to a selected topic. Required of all undergraduate students with major in history. Prerequisite: 301 with a grade of C or better. Not for graduate credit. History majors only.
403-3 Ancient Mesopotamia - [DSS, EGC, IC, SS] History and culture of ancient Mesopotamia and surrounding regions from CA. 10000 B.C. to CA 539 B.C.E.

404a,b-3 each Topics in Medieval Social, Religious and Intellectual History - [DSS, EGC, IC, (a) BSS, (b) BHUM] Historiographical problems in the evaluation of medieval society, culture and ritual: (a) 400-1000 C.E.; (b) 1000-1500 C.E.
408a-c-3 each History of England: 1509 to Present - [BSS, DSS, (c) EGC, II] (a) Reformation and revolution, 1509-1714; (b) Birth and growth of industrial England, 1714-1867; (c) Birth and growth of the welfare state, 1867 to present.
410-1 to 3 Directed Reading - [DSS, SS] Supervised reading for students with sufficient background. Prerequisites: minimum of 3.0 average in history, consent of instructor. Not for graduate credit.

412-3 The French Revolution - [BSS, DSS, EGC, IC] Examination of the origins of the Revolution, its subsequent outbreak, development, radicalization and collapse, focusing especially on intellectual and cultural dimensions of the revolutionary experience.
413-3 History of Modern France - [BSS, DSS, EGC, II] 19th and 20th-century France; ongoing revolutions, politics and culture of Third Republic, efforts to construct "Frenchness," Vichy, imperial adventures and leadership in European integration.

415-3 Modern German History - [BHUM, DSS, EGC, II] German history from 1871 to present, including Germany under Bismarck, World War I, the Nazi period, World War II, division and reunification. Prerequisite: 111b.
416-3 World War I and its Aftermath: 1914-1921 - [BSS, DSS] 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.
418-3 World War II - [BSS, DSS] Survey of causes and multiple aspects of the Second World War, emphasis on military operations.
420a,b-3 each European Social. Cultural and Intellectual History - [BSS, DSS, EGC (a) IC, (b) II] (a) Renaissance to French Revolution; (b) French Revolution to present. Advanced survey of European intellectual/ cultural history.
422a-c-3 each Late Modern Europe - [BSS, DSS, EGC (a,b) IC (c) BHUM, II] (a) Vienna Congress to the Great War; (b) World War I through World War II; (c) Europe Since World War II. Prerequisites: (a) 111a, (b) 111b, (c) 111b; or consent of instructor.
423 a,b-3 each Native Americans Before 1492 to the Present - [BHUM, DSS, EGC, EUSC, IGR] The investigation of disparate cultures in contact with blend of historical and anthropological methods and materials with emphasis on the Indian world view. a) is before 1492 and to 1840 , b) 1840 to present. Prerequisite: 200 or consent of instructor.

424-3 Topics in East European History - [BSS, DSS, EGC, II] Selected topics such as the rise of nationalism, World War I, the Cold War, etc.
425-3 History of American Ideas 1620-1865 - [BHUM] History of American Ideas 1620-1865 traces ideological conflicts and compromises that created the United States through the Civil War.
427-3 History of South Africa - [BSS, DSS, EGC, EUSC, II, IGR] 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 to present. Prerequisite: 301.
428-3 Topics in European Women's History - [BHUM, DSS, EGC, II] (Same as WMST 428) Selected topics in women's history. Course varies from semester to semester. May be repeated to a maximum of 9 hours provided no topic is repeated.
429-3 History of American Ideas 1865-Present - [BHUM] History of American Ideas 1865-Present traces ideological conflicts and compromises that created the United States after the Civil War.
430-3 American Colonial History - [BSS, DSS] Founding of colonies in British America and their development to 1763.
431-3 American Revolution and Constitution - [BSS,
DSS] Conflicting forces and events that led to the American Revolution, and to the Constitution.

434a,b-3 each Modern Twentieth Century American History - [BSS, DSS] Politics, culture and economics in an urban industrial society. (a) 1896-1945; (b) 1945 to present. Prerequisites: (a) 201, (b) 201; or consent of instructor.
440-3 Women in American Social History - [BSS, DSS, EUSC, IGR] (Same as WMST 440). Women from various social classes, ethnic and racial groups, geographic regions. Social institutions: family, church, schools, etc. Colonial era to present.
442-3 The Black Urban Experience - [BSS, DSS, EUSC, IGR] Social, economic, and political history. Emphasizes community life and development, as well as race relations.
443-3 Origins of the American Civil War - [BSS, DSS] An examination of the origins of the sectional crisis and the causes of the American Civil War.
444-3 War and Reconstruction - [SS] An examination of the American Civil War and Reconstruction, 1861 to 1877.
445-3 American Masculinity - [DFAH, EUSC, HUM, IGR] American masculinity is a gender history that explores the different manifestations of manhood as it has been constructed by Americans from the seventeenth century to the present.
447-3 Approaches to Oral History - [BSS, DSS] The methodology, preservation, and use of topical and life history interviews in historical research.
451-3 Native Americans Encounter Lewis and Clark [BHUM, DSS, EUSC, IGR] Investigates the Lewis and Clark expedition from American and especially Native American points of view.
452-3 Native American Women - [BHUM, DSS, EUSC, IGR] Investigates Native American gender roles, particulary women's roles, from an ethnohistorical perspective. Crosslisted with WMST 452.
454-3 History of the Arab-Israeli Conflict - [BSS, DSS, EGC, III Origins and development of Zionism and Palestinian Nationalism. Relations between Israel, Palestinians and the Arab States.
455-3 Women and Gender in Islamic History - [BSS, DSS, EGC, IC] Examines the role of women in Islamic history from the pre-Islamic Middle Eastern context through the establishment of classical Islamic family law to contemporary reforms.
460-3 History of Mexico - [BSS, DSS, EGC, II] Mexican history from the winning of independence to present. Special attention will be devoted to relations with the U.S.

461-3 History of Cuba - [BSS, DSS, EGC, IC, II] The history of Cuba since 1800 , with special emphasis on the political, economic, and cultural development of the island.
462-3 History of Brazil - [BSS, DSS, EGC, IC, II] The history of Brazil since 1800 with a focus on the political, economic, and cultural development of the nation.
470-3 Preserving the American Past - [BSS, DSS] The presentation of history in public arenas, including museums, monuments, cemeteries, and historic buildings.
490-3 to 6 Internship in History - Professional experience in aspects of historical research, preservation, exhibition, and interpretation. May be repeated to a maximum of 6 hours.
Prerequisite: permission only.

\section*{Honors Scholars (HONS)}

120-3 Honors Scholars Freshman Seminar - Freshmen
seminar providing an in-depth examination of a specific topic of deep human significance; includes intensive work in composition, oral communication, and critical thinking.
220-1 to 9 Honors Scholars Hours - Independent research, focused in-depth study of specific topics, honors projects, honors experiences, participatory seminars, presentations. May be repeated for up to 9 hours. Prerequisite: approval of the appropriate college or school and Honors Program director.
320-3 Honors Scholars Interdisciplinary Seminar Seminar examining specific topics from an interdisciplinary perspective. Includes major writing assignment. At least Sophomore level standing required. Non-honors students require permission of instructor to enroll. Will not count as IS for non-honors students. Can be repeated up to 9 credit hours.
420-1 to 9 Honors Scholars Hours - Independent research, focused in-depth study of specific topics, honors projects, honors experiences, participatory seminars, presentations. May be repeated for up to 9 hours. Not for graduate credit. Prerequisite: approval of the appropriate college or school and Honors Program director.

\section*{Humanities (HUM)}

310a,b-3 each Esperanto - [DFAH, DSS, EGC, II] Reading, writing, speaking, and understanding the international language developed by Zamenhof. Must be taken in sequence.
400-3 Symposium in the Humanities - [DFAH, DSS] Subjects not covered by the standard curriculum. May be repeated up to 6 hours. Credit toward concentration at the discretion of the Department. Prerequisite: senior standing or consent of the instructor.

\section*{Industrial Engineering (IE)}

106-3 Engineering Problem Solving - [SKLG] Fundamental steps of problem definition, formulation, and solution approaches universal in all engineering disciplines. Basic skills of reasoning and logic. Case studies and small projects.

\section*{198-0 Industrial/Manufacturing Engineering Work}

Experience I - Supervised work experience with agency, firm, or organization which uses engineers. Intended for students who have part-time cooperative experience jobs. Limited to students enrolled in more than 6 credit hours.
199-0 Industrial/Manufacturing Engineering Co- Operative Education I-First period of a five year supervised academic/work experience with an agency or firm that uses engineers. Graded as satisfactory or unsatisfactory. Prerequisites: sophomore standing in industrial engineering and consent of the chairperson/program director.

\section*{298-0 Industrial/Manufacturing Engineering Work} Experience II - Supervised work experience with agency, firm, or organization which uses engineers. Intended for students who have part-time cooperative experience jobs. Limited to students enrolled in more than 6 credit hours. Prerequisite: 198.
299-0 Industrial/Manufacturing Engineering Co- Operative Education II - Second period of a five year supervised academic/work experience with an agency or firm that uses engineers. Graded as satisfactory or unsatisfactory. Prerequisites: sophomore or junior standing in industrial engineering and consent of the chairperson/program director.
335-3 Introduction to Information Processing Systems Design and implementation of modern information processing systems for industrial applications and E-commerce. Usage
of database design and web development technologies. Prerequisites: CS 145, or equivalent and upper-division standing in industrial engineering or consent of instructor.
345-3 Engineering Economic Analysis - Introduction to engineering cost and decision analysis. Utilizing the principles of economic analysis for choice of engineering alternatives and engineering systems. Prerequisites: Upper-division standing in engineering or consent of instructor.

\section*{365-3 Quantitative Methods in Engineering -} Selected topics in probability and statistical methods with their application in design and analysis of production, manufacturing, and quality control systems. Prerequisites: upper-division standing in engineering or consent of instructor.
370-3 Manufacturing Processes - Properties of engineering metals and alloys, heat treatment, measurement and inspection, casting, forging, metal cutting, nontraditional machining processes, cutting tools. Prerequisites: CE 242 or equivalent, and upper-division standing in industrial engineering or consent of instructor.
375-3 3-D Modeling in Product Design - Computer-aided product design process in computer integrated design and manufacturing environments, 3-D feature-based solid modeling, sketching, concurrent engineering. Prerequisites: upper-division standing of industrial engineering or consent of instructor.

\section*{392-1-6 Readings in Industrial Engineering -} Supervised reading in selected industrial engineering topics. Prerequisites: Junior standing in industrial engineering and consent of instructor.

\section*{398-0 Industrial/Manufacturing Engineering Work}

Experience III-Supervised work experience with agency, firm, or organization which uses engineers. Intended for students who have part-time cooperative experience jobs. Limited to students enrolled in more than 6 credit hours. Prerequisite: 298.
399-0 Industrial/Manufacturing Engineering Cooperative Education III - Third period of a five year supervised academic/work experience with an agency or firm that uses engineers. Graded as satisfactory or unsatisfactory. Prerequisites: sophomore or junior standing in industrial engineering and consent of the chairperson/program director.
401-3 Biomechanics - Mechanics of human body systems including basic anatomy of human body, 2 D and 3 D biomechanical models and application of models in reallife problems. Prerequisites: 370 with a grade of C or better.
415-3 Operations Research Deterministic Models (Same as OR 440) Linear programming: problem formulation, simplex algorithm, transportation and network problems, duality theory, sensitivity theory. Prerequisites: MATH 250 or consent of instructor.
427-3 Knowledge-Based Systems - (Same as ECE 427) Engineering-oriented perspective on artificial intelligence (Al) technology. General Al concepts, specifically knowledgebased (expert) systems and computational intelligence applied to engineering problem-solving. Prerequisites: basic knowledge of computer programming.

\section*{430-3 Managing Engineering and Technology -}

Management functions of planning, organizing, motivating and controlling, and analysis of application of these functions in engineering research, design, production, technical marketing and project management. Prerequisites: Junior or Senior Standing in Industrial Engineering.

445-3 Foundations of Financial Engineering - Financial engineering integrates computational intelligence, mathematical finance, numerical methods and computer simulations for pricing, trading, hedging and investment decisions. Prerequisites: IE 345 and STAT 380 with a grade of C or better.
451-3 Methods Design and Work Measurements -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. Prerequisite: 365 or equivalent or consent of instructor.
458-3 Human Factors Engineering - 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. Prerequisite: 451 or consent of instructor.
461-3 Operations Research Stochastic Models - (Same as OR 441) Probability models, elementary queuing theory with single or multiple servers. Markov processes and models, decision theory. Prerequisites: STAT 380 or 480a.
463-3 Reliability Engineering - (Same as STAT 484)
Probabilistic models for the reliability of coherent systems. Statistical models for lifetimes of components and repairable systems. Reliability estimation and prediction. MIL standards. Prerequisite: 365 or equivalent or STAT 480 .
464-3 Design and Analysis of Experiments with Applications to Science and Engineering - (same as STAT 481) Designs for experimentation and statistical inference with engineering and science applications. One-way, two-way classifications, complete and incomplete block designs. Factorial and fractional factorial designs. Prerequisite: STAT 380 with a grade of C or better or consent of instructor.
465-3 Design and Control of Quality Systems - (Same as STAT 488). Statistical process control techniques, determination of process capability, quality control using variable and attribute control charts, specs and tolerances, control variation, and acceptance sampling. Prerequisite: 365 or STAT 380 or consent of instructor.
466-3 Engineering Metrology - Exposes the student to the principals associated with dimensional measurement, inspection, measurement systems analysis, and geometric dimensioning and tolerancing. Prerequisites: 370 or graduate standing.
467-3 Total Quality and Taguchi Methods - 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. Prerequisites: 465 or consent of instructor.
468-3 Operations Research - Simulation - (Same as OR
442) Design of simulation models using a high level simulation programming language. Applications in production, inventory, queuing, and other models. Prerequisites: IE 365 or IE 461 or OR 441 or STAT 380 or consent of instructor.
470-3 Manufacturing Systems - 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. Prerequisites: 365,370 , and upper-division standing in industrial engineering or consent of instructor.
475-3 CAD/CAM/CAE (Computer Aided Design, Manufacturing and Engineering) - Advanced 3-D solid

\section*{Instructional Technology (IT) Integrative Studies (INTG) Interdisciplinary Studies (IS)}
and assembly modeling and analyses in computer-integrated design and manufacturing environments, advanced parametric and associative modeling. Prerequisites: 375 or consent of instructor.

476-3 Plantwide Process Control - A treatment of techniques in automated control. Digital, analog, open and closed loop controls are discussed. Students gain experience with PC data acquisition and control. Prerequisites CS 145r; ECE 21r.
477-3 Computer-Integrated Manufacturing Systems - (2 hours lecture, 2 hours laboratory). Application of robot theory integrated with automated manufacturing systems. Emphasis on design laboratory exercises. Prerequisites: 470, 476; CS 145 or equivalent; and senior standing in industrial engineering or consent of instructor.

480-3 Tool Engineering - Covers topics including locating/ orientation principles, clamping, positioning and concepts required to design and fabricate tooling for machining, joining and bulk deformation processes. Prerequisites: 345 (or concurrent), 370.
482-3 Manufacturing Engineering Design - Topics include tolerancing, material selection, cost estimation, process planning, product fabrication and activities required to bring product from conceptual design through manufacture. Prerequisites: 345 (or concurrent), 370 or consent of instructor.

483-3 Production Planning and Control - (2 hours lecture, 2 hours laboratory) 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. Prerequisites: senior standing in industrial engineering or consent of instructor.

484-3 Facilities Planning - Theory and methods of facilities layout and planning emphasizing activity relationships, space requirements, materials handling and storage, plant layout and facility location problems. Prerequisite: 415 and upper-division standing in industrial engineering or consent of instructor.

488-3 Lean Production Systems - 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. Prerequisite: 483 or consent of instructor.

490-3 Integrated Engineering Design — Individual/group laboratory or industrial projects of a research, design, or development nature which apply to engineering systems. Prerequisites: Senior standing in industrial engineering and consent of instructor.

492-1-6 Special Topics in Industrial Engineering Selected topics of current interest in industrial engineering and related fields. May include individual research projects for students with honors standing. Prerequisites: senior standing in industrial engineering and consent of instructor.

\section*{Instructional Technology (IT)}

100-3 Digital Learning in the University - [BICS] This course focuses both on digital production skills and learning strategies that enable students to learn more effectively in today's university.
300-3 Digital Learning and Communication for
Educators - [BICS] The integration of digital tools into the K-12 curriculum. Focuses on related instructional and
communication strategies, as well as various digital tools. Prerequisites: CIED 100 with a grade of C or better.
410-3 Media in Instruction — Designing lessons with multi-sensory approach. Demonstrations and hands-on experiences with audio, video projection, and computer equipment. Emphasis on software evaluation and utilization.

430-3 Computer-Based Publishing and InstructionOpportunities to work with various computer hardware and software systems to prepare instructional materials. Emphasis is placed on design and production of effective instructional materials.
435-3 Producing Instructional Materials - Development of instructional products that integrate various digital media. Emphasis on production, visual communication, graphics, authoring environments and evaluation of instructional software.

442-3 Media Selection - Analysis and criteria for selecting aids and reviewing sources. Includes principles and theories of library media selection, assessment and policy for library media collection and development. Prerequisite: Permission of instructor.

443-3 Instructional Media for Children and Young Adults - 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. Prerequisite: Permission of instructor.
448-3 Cataloging for School Librarians - Principles and skills of cataloging all types of materials, including the use of bibliographic records, Dewey Decimal classification, and Library of Congress Subject Headings. Prerequisite: Permission of instructor.

450-3 Using Video for Instruction - Instructional television as a medium for learning. Emphasis on delivery systems, including commercial, public, and satellite programs, and on teacher-produced instructional sequences.
481-3 Computers in Education: Theory and Practice Research on and effective methods for using computers in an educational setting and a systematic framework for integrating computers into the curriculum.

486-3 Web Design for Instruction - Web design concepts for educational settings, including usability concepts, Web style criteria, interaction and instructional strategies and legal/ ethical issues related to Web development.

490-1 to 6 Special Topics - Varied content. Topics of immediate concern in instructional technology field. May be repeated up to 6 hours as long as no topic is repeated.

\section*{Integrative Studies (INTG)}

300-3 Foundations of Integrative Studies-Designed to introduce students to the Integrative Studies degree as well as the process of integrative/interdisciplinary study and research.

499-3 Senior Assignment—Directed study, under the supervision of two faculty members, toward completing the capstone experience. The capstone project can take various forms that include, but not limited to, a research paper, a research presentation, or creative activities. Prerequisites: INTG 300 with a grade of C or better.

\section*{Interdisciplinary Studies (IS)}

301-3 Mathematics and Politics - [IS] An exploration of political structures (such as social choice, apportionment, yes/no voting, conflict, or polling) from the perspectives of mathematics and political science.

302-3 African-American Music and the Struggle for
Freedom - [IS] Study of the various styles of African American music in relation to civil rights and other historical events that shaped African American and American culture (Music and History). Prerequisite: junior standing.
303-3The Greatest Motion Pictures - [IS] An in-depth view of the films that have shaped motion picture history from the perspectives of the Theater and Mass Communications disciplines.
304-3 World Mythology - [IS] An exploration of aspects of the physical environment and human experience from the viewpoints of classical mythology and contemporary science. Prerequisite: Junior standing.

305-3 Native American Studies - [EUSC, IGR] An examination of Native American studies from multiple disciplinary perspectives, such as anthropology, archaeology, history, philosophy, and/or political science. Prerequisite: Junior standing.
322-3 Ethics, Biology, and Society - [IS] A critical examination of some main ethical problems raised by contemporary biological science. Examples include genetic screening and testing, in vitro fertilization, and resource allocation. (Biology/Philosophy).
324-3 Peoples and Cultures of the East - [EGC, IS, IC] Key organization principles, religious and philosophical norms, social customs, aesthetic tastes of China, Japan and other selected Asian nations. (History/Philosophy).
326-3 Modern Latin America - [EGC, IS, II]A multidisciplinary, team-taught introduction to modern nations of Latin America and Caribbean emphasizing history, literature, political economy, geography, anthropology. (Anthropology/ Foreign Languages/Educational Leadership/ History).
331-3 Mind and Language - [IS]Study of the relationship between thought and language from a variety of academic disciplines that may include philosophy, linguistics, history, psychology, or speech communication. Prerequisite: junior standing.
332-3 The Political and Social Thought of Hegel and Marx [IS] Historical and philosophical investigation of the relevance of Hegel and Marx for critical understanding of the contemporary world, and the relationship between the two thinkers.
334-3 Natural Resources: Issues and Conflicts - [IS] American land resource conservation, principles, practices and problems from the perspectives of biology, geography and earth science. (Public Administration/Earth Science).
336-3 Global Problems and Human Survival - [EGC, IS, II] Threats to human survival from war, over-population, pollution, resource depletion, under-development, misuse of the oceans and new technologies plus how to deal with these threats. (Anthropology/Philosophy).
340-3 The Problem of War and Peace - [EGC, III, IS] Basic concepts, historical background, causes of war, perspectives of major nations; contemporary ideological, economic, military, political, and legal aspects; proposals for controlling conflict. (History/Philosophy/Political Science/Psychology).
341-3 The Immigrant in America - [IS] Impact of immigrant groups on American social, political, and cultural patterns; assimilation, stereotyping, generational conflict, nativism. (English/History).
342-3 Death and Dying - \([\mid S]\) Individual and cultural confrontations with mortality, demographic patterns; coping with terminal illness, hospice care, bereavement, definition
and determination, euthanasia, suicide, children, valuational aspects, education. (Philosophy/Health Education/Nursing).
343-3 Contemporary Health Care Issues - [IS] Seminar: Examination of contemporary health issues of diverse cultures across the lifespan. Discussion of global trends, cultural, lifespan, and ethical aspects of each topic. Prerequisite: admission to the University, junior standing.
345-3 Quilts as Cultural Heritage - [EUSC, IGR, IS] Composed of academic and studio components, this course explores the social, historical, cultural and aesthetic aspects of quilts and quilting among diverse cultural groups. Not for graduate credit.
350-3 Women in Social Institutions - [EUSC, IGR, IS] (Same as WMST 350) Historical, cultural, and social class differences in contexts of education, family, health care, economics, religion, politics. (Anthropology/Foundations of Education/History/Women's Studies).
352-3 Women in the Ancient World - [EGC, EUSC, IC, IGR, IS] (Same as WMST 352) History, political and social lives, and literary and artistic representations of/by women in ancient Egypt, Mesopotamia, Greece, and Rome. Prerequisite: junior or senior standing.
353-3 Representing Women's Bodies 300-1500 - [EGC, IC, IS] (Same as WMST 353) Evolution of the ideological construction of the female body as weak or deformed, and the need to transform it so as to be fully human and attain salvation. Prerequisite: junior standing.
360-3 Survival of the Fittest - [IS] The overlap of scientific thought and literary convention in Victorian times. Their relationship is emphasized through lectures, laboratories, and discussions. Prerequisite: junior standing.
361-3 Music: Art and Science - [IS] Relationship between science and art in music; pitch, overtones, scales, digital recording, and mathematical ratios in art and science. (Music/ Computer Science).
363-3 Living Ecologically - [EGC, II, IS] General principles of living system sustainability applied to organic chemicals, cell symbiosis, plants, animals, human families, cities, societies, and the world ecosystem. Prerequisites: junior or senior standing. (Biology/History/Sociology).
364-3 The Atomic Era: Hitler, the Holocaust and the Bomb - [EGC, IC, II, IS] Political events leading to the emigration of European scientists to America before World War II; development of the atomic bomb; political and social ramifications of the atomic era: Includes lab. Prerequisite: junior standing.
375-3 Technology and Public Policy - [EGC, EUSC, IGR, II, IS] Seminar: Examines competition between government and society over global economic, ethical, and moral impacts of science and technology on diverse groups. Prerequisite: junior standing.
376-3 Information Technology and Society - [IS]
Investigation of social and ethical issues associated with information technology and its increasing importance in modern life. (Computer Science and Philosophical Studies) Prerequisite: junior standing.
377-3 The Arts and the French Revolution - [EGC, IC, IS] Brings together political, philosophical, and social history with cultural world of art, music and drama. Center of focus is the French revolution of 1789.

380-3 Song and Poetry - [IS] Survey of the creative relationship between composers' notes and poets' words. The choice of songs varies, always covering a wide range of periods and styles.
385-3 Risk and Risk Tradeoffs - [IS] Concepts for understanding and managing risk, uncertainty, and chance. Practical focus upon controversies in regulating risk in such areas as public health and the environment. (Mathematics/Statistics and Philosophical Studies) Prerequisite: junior standing.

386-3 Cyberarts: Exploring Fine Arts and Computer Technology - [IS] Explores relationships between the arts and computer technology in graphics, music, video, and film. Out of class computer work. One university level computer course is strongly recommended. (Theater and Dance/ Computer Science) Prerequisites: junior or senior standing.
387-3 Philosophy and Modern Physics - [IS] The course introduces the student to the dramatic connections among revolutionary developments that occurred throughout the 20th century in Philosophy, Physics and closed related disciplines. Prerequisites: PHYS 111 or PHYS205a,b or PHYS211a,b or permission of instructor.
399-3 Interdisciplinary Studies - Special Topics - [IS] Multi-subject selected topics that provide opportunities to observe and participate in the interaction of two or more disciplines. Prerequisite: junior or senior standing.

400-3 History, Culture and Language of China - [EGC, IC, IS] A travel study course in Chinese language, history, and culture offered in China. (Foreign Languages/History).
401-3 Business and Society - [EGC, II, IS] The Examination of social, legal, economic, political, global and ethical environments confronting contemporary business. Emphasizes analysis and appreciation of interdisciplinary perspectives in corporate social responsibility. Not for graduate credit. Prerequisites: completion of at least 75 credit hours including FIN 320, CMIS 342, MKTG 300, MGMT 341 and Accounting, CMIS, Economics or Finance, Business Administration majors.
402-3 Spanish Language and Culture for Health Professionals - [IS] (Same as PHEL 784) Expand knowledge of Spanish language and culture with emphasis on preparing to work in health related fields. Prerequisite: SPAN 101 and 102 with grades of \(C\) or better, score of at least 355 on Spanish proficiency test.
403-3 Global Health — [EH, IS] (Same as PHEL 787) Focuses on biological and psych-social-economic aspects of global health issues from a population perspective. Opportunity to work with other health professionals to address challenges.

\section*{Italian (ITAL)}

101-4 Elementary Italian I-[FL, SKFL] Listening, speaking, reading and writing within context of Italian culture. Lab Included.
102-4 Elementary Italian II - [EGC, IC, FL, SKFL] Continuation of 101. Lab Included.

104-8 Elementary Italian - [EGC, IC, FL, SKFL] Intensive instruction in listening, speaking, reading and writing within context of Italian culture. Lab included. Equivalent to 101 and 102 combined.

201-4 Intermediate Italian I — [DFAH, FL, SKFL] Continued practice in listening, speaking, reading and writing. Grammar review. Cultural and literary readings, compositions. Lab included. Prerequisite: 102 or 104, or consent of instructor.

202-4 Intermediate Italian II - [DFAH, FL, SKFL] Continuation of 201. Lab included. Prerequisite: 102 or consent of instructor.

220-3 Intermediate Italian Conversation - Practice in intermediate-level conversation. Focus on pronunciation and fluency. Prerequisite: 102 or equivalent.
311-3 Italian Culture and Civilization - [DFAH, EGC, HUM, IC] Significant aspects of Italian Culture. Prerequisite: 202 or consent of instructor.
499-2 to 6 Independent Study in Italian - Selected areas of language, literature, and culture. Individual work or small groups supervised by Italian faculty. Prerequisite: 202 or consent of instructor.

\section*{Kinesiology (KIN)}

112-1 Selected Sport and Fitness Activities - Instruction and participation in a variety of activities; activity may not be repeated.
113-1 Physical Fitness - Movement activities designed to achieve flexibility, muscular strength, and aerobic endurance.
114-1 Racquetball - Instruction and participation in beginning racquetball.
115-1 Beginning Swimming - Water adjustment and stroke techniques for the beginning swimmer. A small additional fee will be assessed for this course.
116-1 Archery - Basic target shooting.
117-1 Badminton - Basic skill development and game play in singles and doubles.
118-1 Bowling - Basic techniques, skill development, and scoring for the beginning bowler. A small additional fee will be assessed for this course.

119-1 Golf — Introduction to various components of golf.
120-1 Tennis - Basic skill development and game play in singles and doubles.
121-1 Volleyball - Skill techniques, game play, and basic offensive and defensive patterns of play.
122-1 Recreational Sports - Wide variety of leisure and family oriented activities.

123-1 Aerobic Dance - Rhythmic concepts and exercise application to improve flexibility, endurance, and muscle tone.

200-2 Selected Fitness Activities - [EH] Instruction and participation in a variety of fitness-related activities; activity or level may not be repeated.
201-2 Aerobics Level I — Basic principles and application for cardiovascular exercise.

202-2 Aerobics Level II — High intensity level of cardiovascular exercise and individual prescription. Prerequisite: 201 or consent of instructor.
203-2 Fitness and Sport Activities - [EH] Components and principles of fitness applied to various activities.

204-2 Jogging - [EH] Aerobic running.
205-2 Personalized Shape Up - [EH] Assessment and individualized program.
206-2 Strength Training/Flexibility - [EH] Strength training through a full range of movement.
207-2 Weight Training Level I - [EH] Free weights and exercise machines.

208-2 Weight Training Level II - Advanced weight training techniques. Prerequisite: 207 or consent of instructor.
209-2 Tumbling - Basic stunts and self-testing activities.
211-3 Medical Terminology - Learn to read and comprehend original research, medical reports, and health/ fitness evaluations related to prefixes, suffixes, and word roots of medical terms.
220-2 Selected Sport Activities - Instruction and participation in a variety of popular sports; activity or level may not be repeated.
221-2 Intermediate Bowling - Advanced technique and skills development for the experienced bowler. A small additional fee will be assessed for this course.
222-2 Intermediate Golf - Advanced stroke techniques and problem shots; individualized analysis of errors. Prerequisite: 119 or consent of instructor.
223-2 Intermediate Tennis - Advanced stroke techniques and strategy for singles and doubles. Prerequisite: 120 or consent of instructor.
224-2 Intermediate Racquetball - Advanced skills and techniques. Prerequisite: 114 or consent of instructor.
225-2 Intermediate Volleyball - Advanced skills and strategies. Prerequisite: 121 or consent of instructor.
230-2 Selected Aquatic Activities - Instruction and participation in a variety of aquatic experiences; activity or level may not be repeated. A small additional fee will be assessed for this course.

231-2 Aquatic Exercise - Water fitness exercises for all levels of ability. A small additional fee will be assessed for this course.
232-2 Lap Swimming - Endurance swimming. Prerequisite: 115 or consent of instructor. A small additional fee will be assessed for this course.
233-2 Water Games - Recreation and modified aquatic sport activities. A small additional fee will be assessed for this course.

240-2 Selected Recreational Activities - Instruction and participation in a variety of recreational games; activity or level may not be repeated.
241-2 Recreational Softball - Softball for recreational fun.
242-2 Recreational Volleyball — Volleyball for recreational fun.
243-2 Leisure Activities - [EH] Self-directed leisure activities with emphasis on individual planning and programming for individual/ dual and non-competitive activities.
250-2 Selected Rhythmical Activities - Variety of experiences reflecting rhythmical movement patterns; activity or level may not be repeated.
251-2 Ballroom Dancing - Smooth and rhythmic ballroom dance. 252-2 Dances of Today - Contemporary social dances.
253-2 Modern Square Dance - Contemporary square dances.
270-3 Personal Wellness - [EH] Teaches healthy lifestyle enhancement through lecture and fitness activity.
275-3 Introduction to Exercise Science - Course content will include historical and theoretical foundations along with an introduction to current practices, and professional opportunities within the field of exercise science.
301-2 Aquatic Activities/Lifetime Leisure Pursuit -
Development of skill techniques, teaching progressions, and related concepts pertaining to activity identified in title.

302a-2 Physical Education Teacher Education Elementary Field Placement - Field placements allow candidates to participate in an elementary physical education classroom. Students complete a minimum of 50 hours in 302a. Prerequisites: Admission to PETE program; concurrent enrollment in KIN 330 .

302b-2 Physical Education Teacher Education Secondary
Field Placement - Field placements allow candidates to participate in a secondary physical education classroom. Students complete a minimum of 50 hours in 302b. Prerequisites: Admission to PETE program; concurrent enrollment in KIN 435 .
303-3 Lifetime Activities in Physical Education -
Developmentally appropriate lifetime and fitness activities including elementary, middle and high school level skills and tactics. Kinesiology majors only.
304-3 Individual/Dual Activities in Physical Education - Developmentally appropriate individual and dual activities including elementary, middle and high school level skills and tactics. Kinesiology majors only.
307-3 Team Activities in Physical Education -
Developmentally appropriate team activities including elementary, middle and high school level skills and tactics. Kinesiology majors only.
310-3 Exercise Psychology - Overview of the major psychological determinants and consequences of exercise and its impact on public health. Prerequisite: KIN 275 with a grade of \(C\) or better.
314-3 Functional Human Anatomy for Physical Educators - Structural and functional basis of human performance relevant to physical educators.
315-3 Functional Anatomy - Structural and functional basis of human performance.Prerequisite: BIOL 240a with a grade of C or better.
316-3 Biomechanics of Human Movement - Mechanics applied to physical performance; analysis of selected movements, and the application of physical principles to the musculoskeletal system. Two hours lecture and two hour laboratory per week. Prerequisite: KIN 315 with concurrency allowed.
317-3 Biomechanics of Human Movement for Physical Educators - Mechanics applied to physical performance; analysis of specific performance skills and application to instructional process relevant to physical educators. Two hours lecture and two hour laboratory per week. Prerequisite: 314.
319-3 Theory and Techniques in Strength and Conditioning -Student will learn the basic exercise physiology concepts and exercise techniques required to successfully pass nationally recognized personal training certification exams. Prerequisite: KIN 316 with concurrency allowed.
320-3 Motor Learning/Development - Exploration of cognitive and neurophysiological processes associated with skill acquisition and motor performance during the maturational sequences of the child's total development. Kinesiology majors only.
321-3 Introduction to Musculoskeletal Injury and Rehabilitation-Overview of basic musculoskeletal injuries, dysfunctions and rehabilitation. Course is designed for pre-allied health and fitness professionals. Exercise Science majors only. Prerequisites: KIN 315 with a grade of C or better or consent of instructor. Exercise Science Majors only.
325-3 Adapted Physical Education - Survey of various disabilities; stresses assessment, curriculum design,
instructional strategies, and teaching physical activity in the least restrictive environment. Kinesiology majors only.
330-2 Integrating Health and Physical Education into the K-8 Curriculum - This course will provide students an opportunity to understand and implement children's play, health, and physical activity as components of the elementary/ middle school curriculum. Prerequisites: CIED 100 with a grade of C or better. Elementary Education majors only.

332-3 Instruct Strategies in PE — Introduction to planning and teaching physical education activities. Content includes lesson-planning, practice of teaching skills, and analysis of teaching. Kinesiology majors only.
334-3 Early Childhood Physical Education - Movement skill activities and analysis related to motor development in young children. Includes planning and teaching of developmentally appropriate physical activities. Kinesiology majors only.
350-3 Exercise Physiology - Examination of the scientific theories behind the body's responses to exercise. Topics will include exercise metabolism, respiration, circulation, neuromuscular, hormonal, and environmental influences on exercise. Prerequisite: BIOL 240 A and B with a grade of C or better. An additional fee will be assessed for this course.

355-3 Sports Nutrition and Supplementation-In-depth review of the leading research and effective practices in sport nutrition and supplementation. Focus on increasing athletic performance during training and competition. Prerequisite: KIN 350 with C or better, or consent of instructor.

412-3 Biology of Cardiovascular and Metabolic Disease Molecular bases of human diseases related to cardiovascular, diabetes, hypertension, and obesity. Relationship between cellular pathways, disease, and treatment effects. Not for graduate credit. Prerequisite: KIN 350 or concurrent enrollment.

416-3 Exercise Assessment/Programming - Introductory course to the theoretical and practical concepts of exercise assessment, interpretation, and prescription. Not for graduate credit. Prerequisite: 350 with a grade of \(C\) or better. Kinesiology majors only. An additional fee will be assessed for this course.

417-3 Exercise for Special Populations - Using the ACSM guidelines, exercise benefits and risks for special populations related to age, gender, and individuals with health complications and disabilities will be discussed. Prerequisite: KIN 416 with concurrency allowed.
418-3 Exercise Epidemiology - Effects of physical activity on cardiopulmonary, metabolic, and other hypokinetic diseases. Students will gain an understanding of current evidence-based interventions that improve health. Not for graduate credit. Prerequisite: KIN 416 or concurrent enrollment in KIN 416.

419-0 to 3 Physiological Effects of Motor Activity for Physical Educators - Function and regulation of major human systems and responsiveness of those systems to activity relevant to physical educators. Prerequisite: 314. An additional fee will be assessed for this course.

426-3 Cardiac and Pulmonary Rehabilitation - This course will cover theory and common practice for the assessment and treatment of patients with cardiac and pulmonary diseases. Prerequisite: KIN 350 with a grade of C or better. An additional fee will be assessed for this course.

430-3 Measurement and Evaluation in Kinesiology - Design and analyze tests for the learning domains;
determination of appropriate criteria for student evaluation. Introduction to educational statistics. Not for graduate credit. Kinesiology majors only.

\section*{435-3 Curriculum and Instructional Strategies for} Secondary Physical Education - Design, organization and administration of the curriculum; teacher effectiveness and instructional process studied and practiced. Not for graduate credit. Kinesiology majors only.

445-3 Organization and Management of Exercise and Wellness Programs - Theoretical and practical aspects of selected management procedures which relate to the development, implementation, and evaluation of exercise and wellness programs. Not for graduate credit. Kinesiology majors only.
450-3 Psychosocial Aspects of Sport and Physical Activity - Psychological and social aspects of human behavior and societal influence with emphasis on impact of motor performance, learning motor skills, and engagement in physical activity. Not for graduate credit. Kinesiology majors only.
455-3 Senior Professional Seminar - In-depth consideration of selected issues related to teaching physical education. Professional expectations, ethics, legal responsibility. Completion of senior portfolio. Not for graduate credit. Kinesiology majors only.
460-1 to 9 Internship in Exercise Science - Supervised 200-hour placement in professional settings appropriate to student career interests. This course may be repeatable up to 9 credit hours for clinical experience requirements for professional certifications. Not for graduate credit. Prerequisite: 2.75 overall GPA, active American Red Cross CPR/First Aid/AED training, and grade of C or better in KIN 416.

461-6 Student Teaching in Elementary/Middle School
PE - Practice teaching in elementary schools. Registration by permit only. Kinesiology majors only.
462-6 Student Teaching in Secondary Physical Education - Practice teaching in the secondary schools. Enrollment by permit only. Prerequisite: CI 200. Kinesiology majors only.
464-3 Senior Seminar in Exercise Science - Capstone senior project that is designed to integrate the cumulative knowledge, skills, and abilities from the exercise science curriculum into an impactful community-based project. Prerequisite: KIN 416 with C or better.
480-1 to 4 Independent Study — 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. Prerequisite: consent of instructor. Kinesiology majors only.
490-1 to 4 Selected Topics in Applied Kinesiology
- Theory and practice in topical areas such as exercise physiology; biomechanics; sport psychology, exercise psychology, skill teaching, \& fitness assessment. May be repeated to a maximum of 6 hours provided no topics are repeated. Kinesiology majors only.
496-3 Advanced Concepts and Techniques in Strength and Conditioning - This course will prepare students to take the Certified Strength and Conditioning Specialist (CSCS) certification exam through the National Strength and Conditioning Association. Prerequisite: 319 and 350 or consent of instructor.. Kinesiology majors only.
499-1 to 4 Individual Research - Selection, investigation, and writing of research paper under supervision of instructor. Prerequisite: consent of instructor. Kinesiology majors only.

\section*{Latin (LAT)}

101-4 Introduction to Latin - [FL, SKFL] Grammar and vocabulary of classical Latin within context of Roman culture; reading knowledge through texts adapted from classical authors. Lab included.
102-4 Introduction to Latin - [EGC, IC, FL, SKFL] Continuation of 101. Lab included. Prerequisite: 101.
201-4 Intermediate Latin - [DFAH, FL, SKFL] Basic principles; reading selections from classical, medieval, and renaissance periods. Lab included. Prerequisite: 102 or equivalent.
202-4 Intermediate Latin — [DFAH, FL, SKFL] [IAI No. H1 900] Continuation of 201. Lab included. Prerequisite: 102 or equivalent.

499a-f-4 each Readings in Latin — [DFAH] (a) Learning language through selections from classical, medieval, and renaissance Latin; (b) Continuation of a; (c) Continuation of b; (d-f) Second-year level. Content varies with instructor. \(A, b, c\) must be taken in sequence and are prerequisite to \(d\), e , or \(f\) which may be taken out of sequence with consent of instructor. Individual segments may not be repeated for credit. Prerequisite: for \(a, b, c\), consent of instructor.

\section*{Liberal Studies (LIBS)}

198-0 Liberal Studies Internship I - Practical work activity with an outside organization providing students with the opportunity to apply conceptual knowledge in the workplace. Enroll through the Career Development Center. Students will receive a grade of pass or no credit. Requires consent of the dean.

\section*{199-0 Liberal Studies Cooperative Education -}

Supervised work activity with agency, firm or organization, providing a learning environment in which theoretical models are implemented in the student's career area of interest. Students will receive a grade of pass or no credit. Requires consent of the dean.
298-0 Liberal Studies Internship II - Practical work activity with an outside organization providing students with the opportunity to apply conceptual knowledge in the workplace. Enroll through the Career Development Center. Students will receive a grade of pass or no credit. Requires consent of the dean.

\section*{299-0 Liberal Studies Cooperative Education -} Supervised work activity with agency, firm or organization, providing a learning environment in which theoretical models are implemented in the student's career area of interest. Students will receive a grade of pass or no credit. Requires consent of the dean.
300-1 to 3 Student Colloquium - Student initiated, student developed, student conducted colloquium. Innovative and experimental participating course on approved topics not otherwise available. Requires approval by the Dean of the College of Arts and Sciences.
398-0 Liberal Studies Internship II - Practical work activity with an outside organization providing students with the opportunity to apply conceptual knowledge in the workplace. Enroll through the Career Development Center. Students will receive a grade of pass or no credit. Requires consent of the dean.

\section*{399-0 Liberal Studies Cooperative Education -} Supervised work activity with agency, firm or organization, providing a learning environment in which theoretical models are implemented in the student's career area of interest. Students will receive a grade of pass or no credit. Requires consent of the dean.

400-1 to 6 Senior Project in Liberal Studies - Individually designed and supervised project, such as an internship, research/creative project, comprehensive exam, participatory seminars, etc. Not for graduate credit. Requires Senior standing; and consent of instructor, adviser, and program director.

\section*{Management (MGMT)}

330-3 Understanding the Business Environment - Focus is on developing basic business communication skills in written communication and formal presentations and introducing students to the basic functions of businesses and managers. Prerequisite: Admission to the School of Business.
331-3 Managing Group Projects - Course is strongly geared toward skill development and acquiring task and interpersonal skills to work effectively in a group to accomplish stated goals. Prerequisite: Admission to the School of Business.
340-3 Principles of Management - Importance of management to success of organizations; history of management; organizations as systems; decision-making; planning systems; organization structure/design; control systems; managing human resources. Prerequisites: ACCT 200, accounting, CMIS, economics or finance, business administration majors.
341-3 Organizational Behavior and Interpersonal Skills [EUSC, IGR] Knowledge and skill applying behavioral science concepts integrating management and diversity issues (i.e.age, personality, ethnicity, culture and gender) in interpersonal, inter-group and organizational relationships. Prerequisite: 340, admission to School of Business.
430-3 Human Resource Management - Theory, practice and trends in effective utilization of human resources in organizations. Prerequisites: Admission to School of Business; MGMT 330 and 331 , or MGMT 340.
431-3 Recruiting, Selecting, and Hiring Employees -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: 430 , admission to School of Business.
432-3 Training and Developing Employees - Knowledge of principles, practices, and factors that contribute to employees' job competence, performance, personal and professional growth, and contribution to organizational performance. Topics include training needs assessment and training development and delivery. Prerequisites: 430 , admission to School of Business.
433-3 Performance Management and Compensation - 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: 430 , admission to School of Business.
441-3 Strategic Management - Capstone course using top management perspective to develop comprehensive, integrative analysis of organizations and environments as basis for development, implementation, evaluation, control of overall strategy. Not for graduate credit. Prerequisites: completion of BSBA core requirements (MGMT 340, 341, MKTG 300, CMIS 342, PROD 315, FIN 320) and consent of instructor, admission to School of Business, and 109 credit hours toward degree completed.

451-3 Managing Organizational Change and Innovation
- 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: Admission to the School of Business; MGMT 330 and 331, or MGMT 341.
461-3 Managing in the Global Economy/ International Management - [EGC, II] Management of business in other countries and in global economy. Interaction of political, cultural, social, legal and economic forces in international business context. Prerequisites: Admission to the School of Business; MGMT 330 and 331, or MGMT 341.
475-3 Entrepreneurship and Small Business Management - Formation of new enterprises and management of small business. Focus on identifying opportunities, starting a new enterprise, and operational and organizational aspects of small business management. Prerequisites: Admission to the School of Business; MGMT 330 and 331, or MGMT 341.

476-3 Entrepreneurship Practicum - [EGC] Practicum in entrepreneurship. Application of knowledge from MGMT 475 to challenges facing small and new businesses. Students work with local entrepreneurs under faculty direction. Not for graduate credit. Prerequisites: MGMT 475; must be admitted to School of Business; restricted to entrepreneurship concentration students.

485-3 Managing Quality and Performance - 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: Admission to the School of Business; MGMT 330 and 331, or MGMT 341.

490-1 to 3 Independent Study in Management - Topical areas of concentrated study under faculty direction. Allows for advanced, more in-depth exploration of management issue than in regular courses. Not for graduate credit. Prerequisites: MGMT 330 and 331, or MGMT 341, and detailed proposal approved by supervising faculty member and chairperson.

495-3 Special Topics in Management - Advanced and specialized topics of current concern to field of management. Depending on topic of course, chairperson can approve course as a substitute for a BSBA specialization course. Prerequisites: Admission to School of Business; MGMT 330 and 331, or MGMT 341.

\section*{Management Science (MS)}

250-3 Mathematical Methods for Business Analysis - [PS] Mathematical tools required for business analysis; business applications of functions, graphing, solving systems of equations, matrix algebra, counting rules, differentiation and integration. Prerequisites: MATH 120 and ECON 112, both with grades of \(C\) or better.
251-4 Statistical Analysis for Business Decisions - [BICS, PS, EL] Descriptive statistics. Probability. Inferential statistics. Estimation and hypothesis testing of means and proportions. Simple and multiple regression, analysis of variance, and contingency table analysis. Prerequisite: ECON 111, 112, and MS 250 or MATH 150 , all with grades of \(C\) or better.

\section*{Marketing (MKTG)}

300-3 Principles of Marketing - Marketing in economic systems and society. External influences on marketing
objectives, outcomes. Marketing as functional area within organizations. Emphasis on product; pricing; distribution; promotion decisions. Prerequisite: accounting, business administration, economics or finance, CMIS majors.
377-3 Marketing Research - Concepts necessary for understanding/performing applied marketing/business research. Research process: problem identification; design; sampling; data sources; collection. Experimental designs; measurement; statistical analysis. Prerequisites: 300, MS 251, admission to the School of Business.
466-3 Marketing on the Internet - 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: 300 , admission to the School of Business.

470-3 Sports Marketing - Sports marketing mix decisions from perspective of organizations that offer sports-related products and those that use sport to promote other products and services. Prerequisites: 300, admission to the School of Business.
471-3 Advertising Policy and Management - 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: 300, admission to the School of Business.

472-3 Sales Policy and Management - 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: 300, admission to the School of Business.
474-3 Retail Policy and Management — Functions, organization, management of retail enterprises. Impact of recent and contemporary forces. Systems for merchandising and promotional activities. Retailing careers and appropriate preparation.
Prerequisites: 300, admission to the School of Business.
475-3 Consumer Behavior - Consumer motivation, buying behavior, group influence, cultural forces, information processing, and product diffusion. Explanatory theories and product development. Prerequisites: 300, admission to the School of Business.

476-3 International Marketing - [EGC, II] Impact of tariffs, cultural/social restrictions, economic political environments, legal restrictions. International distribution pricing; multinational product planning; communications decisions; international marketing research. Prerequisites: 300, admission to the School of Business.

478-3 Intermediate Marketing Research - Marketing research project planning and development. Emphasizes design and execution of custom research projects, data analysis, report preparation and presentation. Prerequisite: 377 .

479-3 Special Topics in Marketing - Contemporary issues/ problems in marketing. Topic varies when offered. Examples: service marketing; industrial marketing; nonprofit marketing; and other significant topics. May be repeated up to a maximum of 6 hours provided no topic is repeated. Prerequisites: 300 and consent of instructor.
480-3 Advanced Marketing Management - Market structure and behavior. Research and select marketing opportunities. Develop marketing strategies. Plan marketing tactics. Implementation and control of marketing efforts. Final marketing course. Prerequisites: 377 , senior standing, admission to the School of Business.

\section*{Marketing (MKTG)}

490-1 to 3 Independent Study in Marketing - Topical areas in greater depth or unavailable in regular courses. Individual or small group readings and/or research projects. May repeat by permission to a maximum of 6 hours as topic varies. Prerequisites: consent of instructor and department chairperson, admission to the School of Business.

\section*{Mass Communications (MC)}

201-3 Mass Media in Society - [DFAH, HUM] Analysis of mass media focusing on technological, economic, governmental, and societal impact.
202-3 Writing for the Media - [DFAH, HUM] First experiences reporting, writing and rewriting news and information for various media forms: print, electronic, promotional, advertising, public relations. Includes potential publication in SIUE's campus newspaper, The Alestle.
204-3 Introduction to Television and Audio Production - [DFAH, HUM] Planning and realization of audio and video productions; studio techniques; audio and video non-linear editing. Emphasis on composition, aesthetics and storytelling. Prerequisite: 202.
301-3 Radio Production - [DFAH, HUM] Provides students with instruction to perform professional radio productions in digital and analog formats; focus on script writing, technical skills, editing and on-air performance. Prerequisite: 204.
321-3 Feature Writing - [DFAH, HUM] Feature writing. Advanced experience reporting and writing for newspapers, magazines, public relations, and corporate and institutional publications. Observational, experiential techniques. Prerequisite: 202.
322-3 Copy Editing for the Media - [DFAH, HUM] Style, language, structure, and special writing techniques; philosophy of writing, with object to broaden student's understanding of professional writing in all forms of mass communications.
323-3 Publication Layout and Design - [DFAH, HUM] Computerized editing, page layout, publication design, and production for newspapers, magazines and newsletters. Major emphasis is placed on the concept of content-driven design. Prerequisite: 202.
324-3 Public Affairs Reporting - [DFAH, HUM] Reporting for print and electronic media about local and state government, politics, law enforcement, courts, education, state and federal agencies. Field trips, conferences. News ethics. Prerequisite: 202.
325-3 Fundamentals of Advertising - [DFAH, HUM] Examines regulation, media and methods, including research, copywriting and analysis of appeals and messages in advertising.
326-3 Advertising Copywriting and Design - [DFAH, HUM] Processes and practices in copywriting and layout design for print and web advertising. Prerequisites: 323 and 325 .

\section*{327-3 Designing and Writing for the World Wide Web} - [DFAH, HUM] Information- and user-centered approach to Web design. Hands-on experience in designing, creating and publishing textual and multimedia content for the Web. Students compete a medium-sized Web project. Prerequisite: 204 with grade of C or better.
330-3 Advanced Broadcast Writing - [DFAH, HUM] Advanced theory and writing techniques for radio and television. Topics include writing news, commercials, promos, continuity, documentary and dramatic scripts. Prerequisite: 204 with grade of C or better.

\section*{Mass Communications (MC)}

331-3 Electronic Media Performance - [DFAH, HUM] Extensive instruction and practice in electronic media performance. Students prepare projects for field and studio production and presentation. Research paper required.
332-3 Electronic Media News - [DFAH, HUM] Extensive practice in writing, editing videography of news for electronic media. Laboratory in preparation and simulation of broadcasts of radio and television news programs. Prerequisite: 204 with grade of \(C\) or better.
333-3 Advanced Video Writing and Production - [DFAH, HUM] Students write and produce features utilizing film and documentary techniques; design sets, produce newscasts, budget projects, and view pertinent productions. Prerequisite: 204.
334-3 Electronic Media Advertising - [DFAH, HUM] Radio and TV as advertising media. Planning and executing campaign. Agency relationships, research, cost factors, preparation of commercial materials, production, merchandising and promotions included. Prerequisites: 204 and 325 with grades of C or better or consent of instructor.
335-3 Evolution of Entertainment Television - [DFAH, HUM] Economic and technological factors in the history of entertainment television in the United States; changing social and political values as reflected in prime time programming.
341-3 Sports Journalism - [HUM] Course provides overview of sports journalism and enhances students' writing, reporting, interviewing and editing skills. Students learn to write game, advance and feature stories. Prerequisites: 202 with grade of C or better.
342-3 Digital Imagery - [DFAH, HUM] Working with digital images, including creating, capturing, manipulating and producing original images using PhotoshopCS. Emphasizes the role of digital graphics in the context of visual arts. Prerequisite: 202 with grade of C or better.
351-3 Women in Mass Communications - [DFAH, EUSC, HUM, IGR] (Same as WMST 351) Early women journalists' struggles. Social, political, technological contexts. Media as tools of social change. Historical patterns. Positive and negative male influences. Prerequisite: junior standing.
353-3 History of Mass Media - [DFAH, HUM]
Development of American mass media. Struggle for freedom. Outstanding communicators, institutions. Social, political, technological influences.
389-3 Media Planning - [DFAH, SS] Advanced media advertising planning strategies; coverage of media buying, planning skills and tools, problem solving, audience factors. Prerequisite: 325
401-3 Media Law and Policy - [DFAH, HUM] U.S. Constitution, federal, state law related to mass media. Congressional and public policy. Research paper/case study required. Prerequisite: senior standing.
402-3 Media Management - [DFAH, HUM] Management responsibilities, challenges, and expectations in the professional environment, i.e. promotions, ratings, programming. Research paper required. Prerequisite: upper-class standing in Mass Communications major or consent of instructor.
403-3 Media Critical Theory - [DFAH, HUM] Social role and cultural impact of electronic, print and new media technologies; critical analysis of information and entertainment production and distribution; development and application of standards for evaluation; ethical concerns. Research paper required. Not for graduate credit. Prerequisite: upper-class standing in Mass Communications major.

421-3 Advertising Campaigns - [DFAH, HUM] Creation and production of advertising campaigns using print and electronic media. Prerequisite: 326 or 334 with grades of C or better.

422-3 Writing for the Corporate and Institutional Market - [HUM] Reporting, writing, editing information, opinion, other presentations for publicity, publications, annual reports, public relations in general. Study of corporate publications. Prerequisite: 202 with grade of C or better or consent of instructor. For MC majors only.

423a-3 Advanced Topics in Writing for Media - [DFAH, HUM] Advanced theory and practice of writing for the print and visual media. Dramatic wiing.

423b-3 Advanced Topics in Writing for Media - [DFAH, HUM] Advanced theory and practice of writing for the print and visual media. Other topics.
424-3 The Literature of Journalism - [DFAH, HUM] Study of magazine articles, nonfiction books by Crane, Hemingway, Agee, New Journalists, Herr, others. Study of history to determine journalism's contributions to literature.
431-3 Corporate and Non-Broadcast Video - [DFAH, HUM] Communication skills in writing for video, videography, producing, editing, and administration. Students produce video projects, treatments, scripts, release forms, shot sheets. Not for graduate credit. Prerequisites: 204 with a grade of C or better and/or consent of instructor.

433-3 Advanced Video Directing and Producing - [HUM] Advanced theory and practice in television directing and producing. Students work as senior producers for the cable network program SIUE Global Village, plus other assignments. Prerequisite: 333 with a grade of C or better.
440-3 Visual Media Analysis - [DFAH, HUM] Evaluation of illustration and photography for publication and for motion imagery. Values, language, philosophy, style and standards based on artistic vision, audience expectations, and distribution constraints.

441-3 Multimedia Use in Mass Media - [DFAH, HUM] Study and production of media and contextual integration of audio, video, illustration, photography and text for a variety of distribution modes, settings and audience expectations. Prerequisite: 327 with a grade of \(C\) or better or consent of instructor.
447-3 Photojournalism - [HUM] Reporting the news as a photojournalist. Stresses recognition, development and creation of news photographs and the skills of the photo editor. Provides experience in shooting, developing, printing, and editing photos, using digital technology. Not for graduate credit. Prerequisite: 342 with a grade of C or better.
449-3 Media Psychology — [BSS, DFAH] 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. Prerequisite: senior standing or consent of instructor.
451-3 Research Methods in Mass Media - [DFAH, SS]
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. Prerequisites: senior standing or consent of instructor.

452-3 New Media and Technology - [DFAH, HUM] Technological changes in the mass media. New media forms, audience fragmentation, economic, regulatory, and social issues. Patterns of adoption and diffusion. Prerequisite: senior standing.

453-3 Transnational Media - [BSS, DFAH, EGC, EUSC, II] Focus on media ownership, content flow, cultural values, political power, and technological impact in history industrialization, economics and current processes of globalization.
454-3 Documentary Media - [DFAH, HUM] Historical, cultural and artistic evolution of documentary film and video making; aesthetic developments (roots of documentary filmmaking, direct cinema, cinema verite, ethnography, TV documentaries, "Rocumentary.") Prerequisite: 204 with a grade of C or better.
471-3 Special Topics in Mass Media - [DFAH, HUM] 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.
475-3 Advanced Multimedia - [DFAH, HUM] Digital media production techniques for high-bandwidth applications such as 2D \& 3D modeling and character animation, video compositing, and high-resolution image processing; advanced techniques for designing other interactive multimedia systems. Prerequisites: 441 with a grade of \(C\) or better.
481-3 Internship/Senior Portfolio - Experience with professional media under the joint supervision of faculty and media professionals. Preparation and presentation of a senior portfolio for evaluation by faculty. Not for graduate credit. Prerequisite: Mass Communications major, senior standing and approval of instructor.
482-3 Internship - Experience with professional media under the joint supervision of faculty and media professionals. This course may not be used to satisfy Mass Communication elective requirements. Not for graduate credit. Prerequisites: 481 or concurrent enrollment, Mass Communications major, senior standing and approval of instructor.

491-3 Advanced Practices - Advanced work in areas which student has completed all formal course work. Included are studies in news, advertising, writing, announcing, productiondirection. May be repeated to a maximum of 6 hours.
Prerequisite: consent of instructor.
495-1 to 4 Readings in Mass Media - Selected readings in depth with member of faculty. Contemporary books and periodicals. May be repeated to a maximum of 4 hours.
Prerequisites: senior standing and consent of instructor.
499-1 to 3 Independent Study - Special projects, research, and independent study under guidance of faculty supervisor. Not for graduate credit.

\section*{Mathematics (MATH)}

106-3 Deductive Reasoning and Problem Solving - [PS, SKLG] Theory and practice of reasoning, formal logic, elements of scientific method. Graduation credit may earned for MATH 106 or PHIL 106 but not for both. Prerequisite: two years of high school mathematics.
112a,b-3 each Mathematics for Elementary Teaching [BPS] These courses are designed to meet state licensure standards for elementary teachers. a) [INSM] Number Sense and Algebra; b) [DNSM] Probability, Statistics, and Geometry. Prerequisites: MATH 112a - none. MATH 112b - MATH 112a with grade of C or better or concurrent enrollment.
120-3 College Algebra - [BPS, DNSM, INSM] Cartesian coordinates, graphing, lines, parabolas, functions, inverses, roots of polynomials, rational functions and inequalities, linear systems, matrices, and determinants. Prerequisites:
satisfactory placement score, or AD 095 or equivalent with grades of C or better, or Math ACT with 23+.
125-3 Pre-Calculus Mathematics with Trigonometry [BPS, DNSM, INSM] Exponential and logarithmic functions and their applications, inverse trigonometric functions, trigonometric identities and equations, laws of sines and cosines, binomial theorem, and introduction to partial fractions. Prerequisites: satisfactory placement score, or 120 with a C or better, or Math ACT with \(26+\).

145-5 Calculus for the Life Sciences - [BPS] Fundamental concepts of calculus with applications focused on the life sciences: limits, continuity, derivatives, integrals, fundamental theorem of calculus, partial derivatives, differential equations, and applications. Course not a prerequisite for Math 152. Prerequisites: Math 125 with a C or better, ACT Math \(28+\), or placement test scores of (PLCMNTREC - Math 06 or Trigonometry score 046).
150-5 Calculus I — [BPS, DNSM, INSM] [IAI No. M1 900-1] Fundamental concepts of calculus: limits, continuity, derivatives. Mean Value Theorem, applications. Integrals, Fundamental Theorem of Calculus, integration techniques, applications. Prerequisites: 125 with grade of \(C\) or better, or satisfactory placement test score, or Math ACT with 28+.
152-5 Calculus II - [BPS, DNSM] [IAI No. M1 900-2] Applications of integration, techniques of integration, improper integrals, polar coordinates, infinite sequences and series, Taylor's Theorem. Prerequisite: 150 with a grade of C or better.
223-4 Logic and Mathematical Reasoning - [PS] Concepts and techniques essential to advanced mathematics: logic, methods of proof, sets, relations, induction, functions, cardinality, combinatorics and graph theory. Prerequisite: 150 with grade of C or better (2 lecture hours plus 2-hour lab).
224-3 Discrete Mathematics - [BPS, DNSM] Mathematical concepts and techniques essential to computer science: logic, sets, algorithms, methods of proof, induction and recursion, simple counting techniques, graph theory. Does not count toward a major in mathematics. Prerequisite: CS 140 with grade of C or better.
250-4 Calculus III — [BPS, DNSM] [IAI No. M1 900-3] Vectors, dot and cross products, lines and planes in space, vector-valued functions. Partial derivatives, gradient, extrema, multiple integrals. Theorems of Green, Stokes, and Gauss. Prerequisite: 152 with grade of C or better.

300-3 History of Mathematics from Antiquity to Descartes - [PS, DNSM] The development of mathematics from antiquity through the development of analytic geometry. Does not count toward a degree in mathematics. Prerequisite: 125 with grade of C or better.
305-3 Differential Equations I - [PS, DNSM] First order ordinary differential equations, linear ordinary differential equations of higher order, systems of first order linear equations, applications. Prerequisites: 250 and PHYS 151 with grades of C or better.
310-3 Teaching of Middle School Mathematics - [PS] Constructing instructional objectives; formulating, utilizing and evaluating strategies for teaching mathematical concepts and skills; diagnosis and remediation of students' learning difficulties. Does not count toward a degree in mathematics. Prerequisites: 112a, 112b or consent of instructor.
311-3 Teaching of Secondary Mathematics - [PS,
DNSM] Constructing instructional objectives; formulating,
utilizing and evaluating strategies for teaching mathematical concepts and skills; diagnosis and remediation of students' learning difficulties. Does not count toward non-teaching degree or minor in mathematics. Prerequisites: completion of mathematics core.

315-3 Number Theory - [PS, DNSM] Divisibility, primes, numerical functions, congruences, introduction to coding theory, continued fractions, rational approximations. Does not count toward a degree in mathematics. Prerequisite: 125 with grade of C or better.
320-3 Introduction to Algebraic Structures - [PS, DNSM] Introduction to group theory. Groups, subgroups, cyclic groups, cosets and Lagrange's theorem, homomorphisms, factor groups. Prerequisite: 223 with grade of C or better.
321-3 Linear Algebra I - [PS, DNSM] Systems of linear equations matrices and determinants; Vector spaces and linear transformations. Eigenvalues, eigenvectors, diagonalization of a symmetric matrix. Prerequisites: 152 with grade of C or better.
340-3 Theory of Interest - [PS, DNSM] Measures of interest, annuities, yield rates, amortization schedules and sinking funds, economic rationale for interest, stochastic approaches to interest. Prerequisite: 152 with grade of C or better.

350-4 Introduction to Analysis - [PS, DNSM] Logic, set theory, real numbers. Topology on the real line. Cardinality. Sequences and series of real numbers; limits and continuity; sequences and series of functions. Prerequisites: 223 and 250 with grades of C or better.
355-5 Engineering Mathematics - [PS, DNSM] Linear Algebra: Gaussian elimination, linear independence, vector spaces, eigenvalues; Discrete Mathematics: combinations, graph theory; and Complex Analysis: differentiation, integration, series. Prerequisite: 305 with grade of C or better.
400-3 Development of Modern Mathematics - [PS, DNSM] The development of mathematics since the discovery of calculus. Prerequisites: 152 and 223 with grades of C or better.
416a-i-1-3 each Mathematics Topics for Teachers - [PS] (a) Analysis; (b) Algebra; (c) Number theory; (d) Probability and statistics; (e) Mathematical concepts; (f) Geometry; (g) History of mathematics; (h) Applied mathematics; (i) 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. Prerequisite: consent of instructor.

420-3 Abstract Algebra - [PS, DNSM] Rings, fields, integral domains, homomorphisms, factor rings, rings of polynomials, prime ideals, maximal ideals, extension fields, and vector spaces. Prerequisite: 320 with grade of C or better or consent of instructor.

421-3 Linear Algebra II - [PS, DNSM] Advanced study of vector spaces: Cayley-Hamilton Theorem, minimal and characteristic polynomials, eigenspaces, canonical forms, Lagrange-Sylvester Theorem, applications. Prerequisites: 223, 250, 321 with grades of \(C\) or better or consent of instructor.
423-3 Combinatorics and Graph Theory - [PS, DNSM] Methods of solving problems which are discrete in nature. Counting, combinatorial reasoning and modeling, generating functions, recurrence relations. Graphs: definitions, examples, basic properties, applications, algorithms. Prerequisites: 223 with grade of C or better, some knowledge of programming is recommended.

430-3 A Geometric Intro to Topology - [PS] Topological spaces and equivalence through the study of knots, links, surfaces, 3-manifolds and other selected topics. Prerequisite: Math 350 with grade of C or better.
435-3 Foundations for Euclidean and Non-Euclidean Geometry - [PS, DNSM] Points, lines, planes, space, separations, congruence, parallelism and similarity, non- Euclidean geometries, independence of the parallel axiom. Riemannian and Bolyai-Lobachevskian geometries. Prerequisites: 250, 321, and either 320 or 350 with grades of \(C\) or better, or consent of instructor.

437-3 Differential Geometry - [PS, DNSM] 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. Prerequisite: 250,321 with grades of C or better.
450-3 Real Analysis I - [PS, DNSM] Differentiation and Riemann integration of functions of one variable. Taylor series. Improper integrals. Lebesgue measure and integration. Prerequisite: 350 with grade of C or better.
451-3 Introduction to Complex Analysis - [PS, DNSM] 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. Prerequisite: MATH 350 with grade of \(C\) or better or consent of instructor.
462-3 Engineering Numerical Analysis - [PS, DNSM] Polynomial interpolation and approximations, numerical integration, differentiation, direct and iterative methods for linear systems. Introduction to numerical solutions for ODEs and PDEs. Matlab programming required. Not for Math majors. Prerequisite: MATH 250, 305, CS 140 with grades of C or better or consent of instructor.
464-3 Partial Differential Equations - [PS, DNSM] Partial differential equations; Fourier series and integrals; wave equation; heat equation; Laplace equation; Sturm- Liouville theory. Prerequisites: 250,305 and 321 with grades of \(C\) or better.
465-3 Numerical Analysis - [PS, DNSM] Error analysis, solution of nonlinear equations, interpolation, numerical differentiation and integration, numerical solution of ordinary differential equations, solution of linear systems of equations. Prerequisites: 223,305 , and CS 145 with a grade of C or better or consent of instructor.
466-3 Numerical Linear Algebra with Applications - [PS, DNSM] 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: 250, 305, 321, CS 140 with a grade of C or better.
490a-h, 1-3 each Topics in Mathematics - 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.
495a-g, 1-3 each Independent Study - [PS, DNSM] Research and reading in specified area of interest. (a) Algebra; (b) Geometry; (c) Analysis; (d) Mathematics Education; (e) Logic and foundations; (f) Topology; (g) Numerical 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 a single
segment nor more than 6 in one semester. Prerequisite: written consent of advisor and instructor.

498-2 Senior Seminar - Mathematical modeling. The writing and presenting of mathematical ideas. Preparation for senior project. Prerequisite: completion of the mathematics core; restricted to Mathematics and Statistics majors.

499-2 Senior Project - Directed study toward completing the senior assignment. Student completes a written project and gives an oral presentation. Prerequisite: completion of the mathematics core; restricted to Mathematics and Statistics majors.

\section*{Mechanical Engineering (ME)}

198-0 Mechanical Engineering Work Experience ISupervised work experience with agency, firm, or organization that uses engineers. Intended for students who have part-time cooperative experience jobs. Limited to students enrolled in more than 6 credit hours.

199-0 Mechanical Engineering Cooperative Education ISupervised work experience with agency, firm or organization that uses engineers. First work period of five-year academic/ work experience program. Prerequisites: sophomore standing in mechanical engineering and consent of engineering co-op advisor.
262-3 Dynamics - Differentiation and rotation of vector valued functions; dynamics of particles; Newton's laws, momentum and energy; relative motion; dynamics of rigid body plane motion. Prerequisite: CE 240.

\section*{298-0 Mechanical Engineering Work Experience II -} Supervised work experience with agency, firm, or organization that uses engineers. Intended for students who have part-time cooperative experience jobs. Limited to students enrolled in more than 6 credit hours. Prerequisite: 198.
299-0 Mechanical Engineering Cooperative Education II - Supervised work experience with agency, firm or organization that uses engineers. Second work period of five-year academic/work experience program. Prerequisites: sophomore standing in mechanical engineering and consent of engineering co-op advisor.
310-3 Thermodynamics I - Classical thermodynamics: properties of pure substances, ideal gas law, work and heat, first and second laws, entropy, Rankine cycle. Prerequisite: ME 262 and MATH 250 with D or better, concurrency allowed.

312-3 Thermodynamics II - Some power and refrigeration cycles; mixtures and solutions; chemical reactions and chemical equilibrium; irreversibility and availability; thermodynamic relations. Prerequisite: 310.
315-3 Fluid Mechanics - (Same as CE 315) Basic principles of conservation of mass, momentum and energy in fluid systems; dimensional analysis, compressible and incompressible flow, boundary layers. Prerequisites: upperdivision standing in mechanical or civil engineering, CE 242 or concurrent enrollment, or consent of instructor.
350-3 Mechanisms - Kinematic analysis and synthesis of four bar linkages, cams, gears and other mechanisms; D'Alembert principle, dynamic force analysis, balancing, gyroscopic effects. Prerequisite: 262, 354 or concurrent enrollment.
354-1 Numerical Simulation - Simulation software, numerical solution of algebraic and differential equations, simulation. Prerequisite: MATH 305 or concurrent enrollment.

356-3 Dynamic Systems Modeling - Laplace transformation; transfer functions. Modeling of dynamic systems involving mechanical, electrical, fluid and thermal
components. State space description. Computer simulations. Frequency response and bode plot. Prerequisites: 262, 354 or concurrent enrollment, ECE 210 and MATH 305 with a minimum grade of \(D\).

356L-1 Dynamical Systems Laboratory - Experimental methods. Sensors and transducers. Instrumentation. Dynamic response. Signal processing. Prerequisite: 356 or concurrent enrollment.
370-3 Materials Engineering - Atomic, molecular and crystalline structures; effect of micro- and macrostructure on properties; equilibrium and non-equilibrium multiphase systems; metallic, ceramic and polymeric materials. Prerequisite: CE 242 or concurrent enrollment.
380-3 Design of Machine Elements - Stress and deformation; buckling; failure theories for static and fatigue loading; design of gears, shafts and other. Prerequisite: ME 354 or concurrent enrollment and CE 242.

380L-1 Stress Laboratory - Measurement of stress and strain. Stress concentration. Combined loading. Material strength and failure. Prerequisite: 380 or concurrent enrollment.

\section*{398-0 Mechanical Engineering Work Experience III -} Supervised work experience with agency, firm, or organization which uses engineers. Intended for students who have parttime cooperative experience jobs. Limited to students enrolled in more than 6 credit hours. Prerequisite: 298.

\section*{399-0 Mechanical Engineering Cooperative Education} III - Supervised work experience with agency, firm or organization which uses engineers. Third work period of five-year academic/work experience program. Prerequisites: junior standing in mechanical engineering and consent of engineering co-op advisor.
410-3 Heat Transfer - Steady and unsteady conduction, transient numerical method; principles of convection; empirical relations for forced-convection heat transfer, radiation heat transfer, heat exchangers. Design project. Not for graduate credit. Prerequisites: 310, 315.

410L-1 Thermal Science Laboratory - Applications of thermodynamics and fluid mechanics laws; pipe flow measurements, Bernoulli experiment, wind tunnel measurements, refrigeration cycle; compressor and pump experiments; steam generator. Not for graduate credit. Prerequisite: ME 410 or concurrent enrollment.
414-3 Gas Dynamics - Basic equations of compressible flow, isentropic flow of perfect gas; normal shock waves, oblique shock waves; flow with friction and heat loss, applications. Prerequisites: 310 and 315.
416-3 Thermal Science Design - Selected topics such as heat exchangers, steam generators, combustion and two phase flow systems considered for design projects. Application of design emphasized. Not for graduate credit. Prerequisite: 410.
417-3 Heating, Ventilating, and Air Conditioning (HVAC)
- Air-conditioning systems, psychrometrics, indoor air quality, heating and cooling loads, pumps and fans, duct design, refrigeration. Prerequisite: ME 410 with D or better, or concurrent enrollment.

418-3 Internal Combustion Engines - Thermodynamics of internal combustion engine cycles; gasoline and diesel engines; engine design considerations; engine heat release; fuel-air and combustion; valves and heat losses. Prerequisite: ME 410 or concurrent enrollment, ME 312.

419-3 Gas Turbines - Quasi-one-dimensional compressible flow; ideal and non-ideal gas turbine cycles, gas turbines for power, turbojet, turbofan; component performance; engine off-design performance; engine design considerations. Not for graduate credit. Prerequisite: 312 and 315 .
432-3 Vehicle Dynamics and Technology - One dimensional dynamics of a vehicle, acceleration performance, breaking performance, power train, tire mechanism, steering mechanism, low and high speed cornering, and suspension system. Prerequisites: 350 with a C or better.
438-3 to 6 Mechanical Engineering Project — Individual laboratory projects of research, design, or developmental nature to study principles of engineering systems or components. Not for graduate credit. Prerequisites: senior standing in mechanical engineering and consent of department chairperson.
442-3 Microelectromechanical Systems - Fundamental science, design, and fabrication of MEMS and microsystems, scaling laws, MEMS flexures, capacitive, piezoelectric, piezoresistive, and thermal sensing and actuation. Prerequisites: ME 315, ME 356, ME 370, ME 380 with grades of \(C\) or better or Graduate standing.
450-3 Automatic Control - Modeling of dynamical systems, linearizations, stability and feedback control; Routh-Hurwitz Criteria, time domain and frequency domain response, Root Locus, feedback compensator design. Prerequisites: 356.
452-3 Vibrations - (Same as CE 452) Vibration of single and multi-degree of freedom systems; natural frequencies and natural modes; vibration isolation. Structural response to ground excitation. Prerequisites: 262, CE 242, MATH 305.
454-3 Robotics Dynamics and Control - (Same as ECE 467) Robotics, robot kinematics and inverse kinematics, trajectory planning, differential motion and virtual work principle, dynamics and control. Prerequisites: consent of instructor.

458-3 Mechatronics - Dynamic response; fundamentals of electronic and logic circuits; sensors and instrumentation for strains, movements and fluid flow; actuators and power transmission devices; feedback control. Two hours lecture and one laboratory session per week. Approved for graduate credit. Prerequisites: ME 356.
466-3 Digital Control - (Same as ECE 466) 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. Prerequisite: ME 450 or ECE 365.
470-3 Stress Analysis and Design - (Same as CE 470). Three dimensional torsion and bending; stress and strain transformations; yield criteria and plasticity theory; finite element method; case studies and engineering design. Prerequisites: 370 or equivalent; CE 242.
472-3 Engineering Fracture Mechanics - Mechanisms of fracture and crack growth; the elastic and plastic crack-tip stress fields; case studies and design analysis. Not for graduate credit. Prerequisites: 370, CE 242.
474-3 Mechanics of Composite Materials - Micro- and macromechanical behaviors of lamina; micro- and macro-mechanical behaviors of laminate, laminated plates; case studies and design. Not for graduate credit. Prerequisite: 370, CE 242.
478-3 Numerical Control programming - Theory/ implementation of numerically controlled machine tools.
projects include manual/computer assisted programming and machining. Design principles are discussed in the context of geometry creation. Prerequisite: 370 with C or better, or consent of instructor.

482-2 Mechanical Engineering Design I—Problem solving methodology used in design, analysis and synthesis of mechanical and thermal systems; exploring, selecting, documenting, writing and presenting a project proposal. Not for graduate credit. Prerequisite: ME 350, 370 and 380.

484-2 Mechanical Engineering Design II—Application of engineering principles and sciences to the design of mechanical systems or processes; production of working prototypes or simulated models; writing and presenting final project reports. Not for graduate credit. Prerequisite: 482.
492-1 to 6 Topics in Mechanical Engineering - Selected topics of special interest in mechanical engineering. May be repeated to a maximum of 6 hours so long as no topic is repeated. Not for graduate credit. Prerequisites: senior standing in mechanical engineering and consent of department chair.

\section*{Military Science (MSC)}

101-2 Introduction to Military Science - [EH] Introduction to the Army and critical thinking. Issues and professional competencies central to a commissioned officer's responsibilities. Establish a framework for understanding officership, leadership, and Army values. Includes subjects such as goal setting, time management, and health and fitness.
102-2 Introduction to Military Operations - Introduction to the profession of arms and professional competence. Study of the modern battlefield and its relationship to leadership, team building, and stress management. Individual communication skills and group dynamics are stressed. Comprehends the Army as a values based organization.
122-2 Survivor Training - Students learn survival and leadership skills to include: Locate food/water, make shelter, conduct land navigation, climate adjustment, first aid, rappelling, and water survival.
201-3 Applied Military Leadership — Detailed instruction and practical exercises in leadership, team building, problem solving, planning, organizing and decision-making. Army Values and Warrior Ethos and their relationship to Army Leadership and the American people. Prerequisites: 101, 102, or prior service and instructor approval.
202-3 Army Doctrine and Team Development - Army Doctrine, the Law of Land Warfare and cultural awareness are covered. Instruction in use of analytical aids in planning, organizing, and controlling a changing environment. Team building and tactical decisions are studied. Prerequisites: 101, 102, 201 or prior service and instructor approval.
222-3 The Art of War - History and evolution of warfare from the Ancient Greeks to contemporary warfare. Key military leaders and campaigns will be analyzed.

301-3 Advanced Leadership and Management - [EH] Platoon operations. Review of skills, techniques and concepts required by the small-unit leader: troop leading procedures, land navigation skills, tactical organization, communications skills, and offensive tactics. Prerequisites: 201, 202 or prior service and instructor approval.

302-3 Small-Unit Leadership and Tactics - Review of skills, techniques, and concepts required by the small-unit leader: risk management, troop-leading procedures, fire-
control skills, motivation skills, communications skills, tactical analysis, and offensive tactics. Prerequisites: 201, 202, 301 or prior service and instructor approval.

401-3 Leadership and Management - Mission command and Army operations, training management, Army leader ethics, communications, leadership skills, staff organization and coordination, as well as counseling skills. Explores practical aspects of military law. Not for graduate credit. Prerequisites: 301, 302 and instructor approval.
402-3 Officership - Mission command at the company grade level. Development of interpersonal skills required for effective management with particular emphasis on the military environment. Reviews various roles of the newly commissioned Army officer. Not for graduate credit. Prerequisites: 301, 302, 401 and instructor approval.

490-3 Independent Study - Students accomplish a task or project based on initial counseling and consideration of student learning goals and department capabilities. Develops student's ability to work with minimal supervision, establish goals, meet deadlines, and execute project management.
495-3 Special Topics in Military Science - Advanced and specialized topics of current concern to the field of military science. Examples may include advanced survival training, military mountaineering and rappelling, advanced military career fields, and other significant topics.

\section*{Music (MUS)}

100-0 - Convocation - [FPA] Exposure to a wide variety of musical repertory as performed by students from the Department of Music.
101-0 to 3 Special Topics in Music - [FPA] Special topics in music. May be repeated twice for a maximum of 6 hours provided no topic is repeated.
111-3 Introduction to Music History/Literature - [BFPA, IFAH] [IAI No. F1 900] Elements of music. Important composers, periods, styles and forms of music.
112 Class Applied Woodwinds - [FPA] Introductory methods for teaching selected woodwind instruments (saxophone, clarinet, flute, oboe, bassoon) in elementary and secondary schools.

113-1 Class Applied Brass - [FPA] Introductory methods for teaching these instruments in elementary and secondary schools.
114-1 Class Applied Percussion — [FPA] Introductory methods for teaching these instruments in elementary and secondary schools.
115a,b-1 each Class Applied Voice - [FPA] Training in singing, diction, and teaching voice students. Introductory. Must be taken in sequence.
116-1 Class Applied Strings - [FPA] Introductory techniques and methods for teaching selected string instruments (violin, viola, cello, bass) in elementary and secondary schools.
121a-1 each Class Applied Piano - [FPA] Practical instruction for passing proficiency examination in piano which is required for all music concentrations. Must be taken in sequence. Concurrent enrollment in MUS 125A required.
121b-1 each Class Applied Piano - [FPA] Practical instruction for passing proficiency examination in piano which is required for all music concentrations. Must be taken in sequence. Concurrent enrollment in MUS 125A required.

Prerequisite: 121A and 125A with grades of \(C\) or better. Concurrent enrollment in MUS 125B required.
124-3 Foundations of Music - [BFPA, DFAH] Overview of the principles and procedures applicable to reading, writing, and perception of music including, rhythm, pitch, notation, scales, keys, intervals, chord structures; symbols and performance terms with reference to application to musical form and design.
125a-4 each Theory of Music - [BFPA, DFAH] Fundamentals of music through sight singing, dictation, written and keyboard harmony. Must be taken in sequence. Lab required. Concurrent enrollment in MUS 121A is required.
125b -4 each Theory of Music - [BFPA, DFAH] Fundamentals of music through sight singing, dictation, written and keyboard harmony. Must be taken in sequence. Lab required. Prerequisite: MUS 125A with a grade of C or better. Concurrent enrollment in MUS 121B.
139a,b-2 each Diction for Singers - [FPA] Knowledge of diction through use of the International Phonetic Alphabet and its application to song literature. (a) English, Italian, German; (b) German and French. Must be taken in sequence. Prerequisite: admission to 140q, permission of instructor.
140, 240, 340, 440a-x - 2 or 4 each Private Applied Music - [FPA] Offered at four levels in areas listed. Credit is given at 2 or 4 hours at each level. Partial junior recital required of performance majors. Full senior recital required for performance majors and partial senior recital required for music education majors. Consult with advisor 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. Concurrent enrollment in major ensemble 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 permission of instructor. a) Violin, b) Viola, c) Cello, d) String Bass, e) Flute, f) Oboe, g) Clarinet, h) Bassoon, i) Saxophone, j) Percussion, k) Piano, I) Horn, m) Trumpet, n) Trombone, o) Tuba, p) Baritone, q) Voice, r) Organ, s) Harpsichord, t) Harp, u) Guitar, w) Conducting, x) Accompanying.
141, 241, 341, 441d-u - 2 or 4 each Private Jazz - [FPA] Individual instruction in performance of various jazz styles. Offered at four levels in 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 at each level. Students with concentration in performance usually take 4 hours. Concentrations in music education and all secondary concentrations usually take 2 hours. Prerequisites: for 141, permission of instructor; for higher levels, two semesters at previous level on same instrument. d) Bass, i) Saxophone, j) Percussion, k) Piano m) Trumpet, n) Trombone, q) Voice, u) Guitar.
144-0 or 1 Women's Glee - [FPA] Non-auditioned chorus open to singers campus-wide who desire a quality experience featuring outstanding repertoire. May be repeated up to 8 hours.
165a,b-1 each Piano Practicum - [FPA] Keyboard harmony, sight reading, transposition, improvisation, technique, ensemble skills. Must be taken in sequence. Required for all keyboard majors.
201-1 Introduction to Music Education - [BFPA] Explore music teaching as a vocation. Off-campus visits to schools required outside class time: Freshman standing or permission of instructor.

212a,b-2 each Applied Composition - [FPA] Original composition. Theory/Composition majors must earn a grade of \(B\) or better. Prerequisite: 125 b with a grade of \(B\) or better or permission of instructor.
221a,b-1 each Class Applied Piano - [FPA] Practical instruction for passing piano proficiency required for all music concentrations. Must be taken in sequence. Prerequisite: 121b or instructor permission.
222-0 or 1 University Band - [FPA] Wind/Percussion ensemble. No audition required. May be repeated.
225a,b-4 each Theory of Music - [BFPA, DFAH] Advanced harmonic techniques, modulation, altered chords, chromatic harmony, counterpoint, introduction to contemporary harmonic principles. Must be taken in sequence. Prerequisites: a) 111, 125b b) 225a.
227-2 Introduction to Composition - [FPA] Introduction to materials and methods of composition, including notation, melody, harmony, rhythm, philosophy, and style. Weekly composition studio class required. Prerequisite: 225a with grade of \(B\) or better, or permission of instructor.
230-1 Beginning Improvisation - [FPA] Theory and techniques, functional harmony, melodic form, special scales, tune studies, ear training, development of style. Repeatable to 4 hours. Prerequisite: permission of instructor.
231-2 Jazz Keyboard Theory - [FPA] Jazz Keyboard theory is designed for (but not limited to) Jazz Performance majors as a jazz theory course using piano keyboard and computer as the facilitator.

233-0 or 1 Guitar Ensemble - [FPA] May be repeated. Prerequisite: permission of instructor.
240a-x - 2 or 4 Private Applied Music - [FPA] See 140.
241d-u - 2 or 4 Private Jazz — [FPA] See 141.
244-0 or 1 Community Choral Society - [FPA] Performs literature from all eras. Open to all students. May be repeated.
300-3 Music in the Elementary Classroom - [BFPA, DFAH] Music methods for the elementary classroom teacher. Not for music education major: (see 301a).
301a-c -2 each Music Education Methods - Elementary, Secondary (Vocal), Secondary (Instrumental) - [FPA] Teaching music: (a) Elementary. (b) Secondary-Vocal and General; (c) Secondary-Instrumental. For music concentration only. Must be taken in sequence. Prerequisite: \(112,115 \mathrm{a} / \mathrm{b}, 116,201,221 \mathrm{a} / \mathrm{b}, 318 \mathrm{a} / \mathrm{b}, 225 \mathrm{~b}\) and Cl 200 or CIED 100 all with grades of \(C\) or better.
305-3 Non-Western Music - [BFPA, DFAH, EGC] Basic elements of music and perceptive listening as they relate to non-Western music. Examines the music culture of several non-Western societies.
309-3 Orchestration - [BFPA, DFAH] Writing for orchestral instruments. Prerequisite: 225 b or permission of instructor.
312a,b - 2 each Applied Composition - [BFPA, DFAH] Original composition. Must be taken in sequence. Weekly seminar required. Prerequisite: 227 or permission of instructor.
318a,b-2 each Conducting - [FPA] (a) General fundamental conducting patterns, conducting experience, musical terminology; (b) choral and instrumental conducting experience; rehearsal techniques; analysis of literature; suitable for all levels of ability. Must be taken in sequence. Prerequisite: (a \& b) 225b, (b) 318a.

322-0 or 1 Wind Symphony - [FPA] May be repeated. Prerequisite: audition with instructor.
326-3 each Analysis - [FPA] Exploration of important musical forms and styles from both a theoretical and historical context. Prerequisite: MUS 225b with grade of C or better.
330-1 Intermediate Improvisation - [BFPA, DFAH] Theory and techniques, functional harmony, melodic form, special scales, tune studies, ear training, development of style. May be repeated up to 6 hours. Prerequisite: permission of instructor.
331-2 Jazz Keyboard Theory - [BFPA, DFAH] Course is designed for (but not limited to) Jazz Performance majors as a jazz theory course using the piano keyboard and computer as the facilitator. Prerequisite: 231b or instructor permission.
333-0 or 1 Jazz Combo - [FPA] Small Jazz ensemble performance experiences which stress improvisation. Jazz styles ranging from swing to contemporary jazz/rock fusion. Difficulty levels vary according to the abilities of students. May be repeated. Prerequisite: by audition with instructor.
337-3 Evolution of Jazz Styles - [FPA] For music majors. Historical research and analysis of particular styles of jazz innovators.
338-3 Jazz - [BFPA, DFAH,EUSC] Jazz forms and styles: development, illustrations, performance.
\(340 \mathrm{a}-\mathrm{x}\) - 2 or 4 Private Applied Music - [FPA] See 140.
341d-u - 2 or 4 Private Jazz - [FPA] See 141.
342- 0 or 1 Musical Theater Ensemble - [FPA] Participation in a musical theater production under the auspices of the theater and/or music departments. May be repeated. Prerequisite: audition with instructor.
355a-d - 0 or 1 each Chamber Music Ensembles - [FPA] (a) Brass; (b) Woodwinds; (c) Strings; (d) Percussion. May be taken in any sequence. Any part may be repeated for up to 8 semesters. Prerequisite: permission of instructor.
357a, b-3 each History of Western Music - [BHUM, DFAH, EGC] (a) [AAI No. F1 901] Antiquity through early classic period. Must be taken in sequence. Prerequisites: 225b minimum grade of C .
\(365-0\) or 1 Piano Ensemble - [FPA] Vocal and instrumental accompanying; chamber music and piano duo literature. May be repeated up to 8 times. Requires consent of instructor.
377-1 University Symphony Orchestra - [FPA] May be repeated. Prerequisite: audition with instructor.
390-0 Junior Recital - [FPA] Public recital by candidates for major in performance. Prerequisite: MUS 140/141-340/341 all instruments and voice.

395a,b-3 each Music Business - [BFPA, DFAH] Survey of Music Industry through study of music publishing, copyright, licensing, artist management, record production and merchandising, concert promotion, arts administration, advertising and music in retail.
400a-t-0 Senior Assignment - Specific projects are assigned per degree program and are embedded in upper-level coursework. (a) B.A. Music; (b) Music Business; (c) Music Composition; (e) Music Education; (h) Music History/Literature; (j) JazzPerformance; (p) Music Performance; (t) Music Theory. Prerequisite: Senior standing or permission of instructor.
400z-0 to 3 Specific Projects in Music - Designed for students who will be involved with a specific project: traveling to perform, present, or to develop specific skills related to major.

401-2 Psycho-Physiology of Music - [FPA] Human capacities, their relationship to musical potentials and development. Acoustical foundations of music. Prerequisite: permission of instructor.
409a,b - 2 each Jazz Arranging - [FPA] Basic skills of arranging for combo; big band; studio orchestra. Writing project required for each course section. Not for graduate credit. Prerequisites: 225b, 231b, or permission of instructor; for 409b: 409a with C or better.

411a-g -2 each Music Literature - [FPA] (a) Symphonic; (b) Choral; ; (c) Chamber; (d) Opera; (e) Special Areas; (f) Vocal; (g) 20th Century. Study of period, composer, style or medium. May be repeated so long as topic is different. Not for Graduate credit. Prerequisite: 225 b or permission of instructor.
412a,b-4 each Applied Composition - [BFPA, DFAH] Original composition. Must be taken in sequence. Prerequisite 312 b or permission of instructor.
413a,b-2 each Piano Literature - [FPA] (a) Baroque to early Romantic; (b) Romantic and Contemporary. Prerequisite: 357b or permission of instructor.
415-2 Class Applied Voice - [FPA] Singing, diction, and voice pedagogy for music majors with minimal vocal experience.
419-2 Vocal Teaching Techniques and Materials - [BFPA] Principles of vocal production and methods of teaching voice. Prerequisite: 225b with a grade of C or better. Music majors, senior level in specialization-voice performance.
420-1 Music Education Practicum - [FPA] Shop laboratory course. Selection adjustments, maintenance, and repair of musical instruments.

\section*{422-1 Wind Ensemble - May be repeated. Not for graduate credit.}

426a-2 Advanced Music Theory: Music since 1900 - [FPA]
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. Prerequisite: 326 \& 357b
430-1 Advanced Improvisation - [FPA] Variety of jazz structures. Real-time composition and analysis. Students should know principles of note selection, time-feel, phrasing and articulation as developed in 330. May be repeated up to 6 hours. Not for graduate credit. Prerequisite: 225b and 330(2) or equivalent.
\(433-0\) or 1 Concert Jazz Band - [FPA] May be repeated up to 8 hours. Not for graduate credit. Prerequisite: audition with instructor.

436-2 Jazz Education - [FPA] Teaching jazz at elementary, secondary, and college levels, both group and individual instruction. Prerequisite: 225b or permission of instructor.
439-2 Recording Techniques - [FPA] Technical understanding of equipment used in basic digital recording studios: microphones; equalization; mixing; hard disk recording and 24 track recording formats.
440a-x-2 or 4 Private Applied Music - [FPA] See 140. Prerequisite: 225 b .
441d-u-2 or 4 Private Jazz — [FPA] see 141.
441x 2 to 4 Private Applied Accompanying - 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

\section*{Music (MUS)}
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.
442-3 Counterpoint - [BFPA, DFAH] Sixteenth and Eighteenth century contrapuntal techniques. Prerequisite: MUS 225b with C or better, or permission of instructor.
444-0 or 1 Concert Choir - [FPA] Emphasis on unaccompanied literature and larger choral works. Touring choir. May be repeated. Not for graduate credit. Prerequisite: audition with instructor.
460a,b- 0 to 2 each Opera Workshop - [FPA] Skills, techniques, and literature used in performance and production of operatic scenes, operas, operettas. May be repeated for up to 16 hours.
461a,b-3 each Piano Teaching Techniques and Materials [BFPA, DFAH] (a) Methods; (b) Materials. Problems of private studio teaching and college level teaching. Must be taken in sequence. Prerequisite: (b) 340 k or permission of instructor.
465-2 Development and Teaching of Strings - [FPA] String education in Elementary and Secondary schools. Techniques of heterogeneous and homogeneous string teaching. Resource aids. May be repeated up to 8 hours. Prerequisite: permission of instructor.
466-0 or 1 Madrigal Singers - [FPA] Emphasis on Renaissance Literature. Touring choir. May be repeated to a maximum of 4 hours. Not for graduate credit. Prerequisite: audition with instructor.
472 a,b-3 each Arranging - [FPA] (a) Instrumental; (b) Choral. Basic skills of arranging for large ensembles. Writing project required. May be repeated so long as topic is different. Prerequisite: 309a with a grade of \(B\) or better, or permission of instructor.
481-1 to 3 Readings in Music Theory - [FPA] May be repeated for up to 6 hours. Prerequisite: permission of instructor.
482-1 to 3 Readings In Music History/Literature - [FPA] May be repeated for up to 6 hours. Prerequisite: permission of instructor.
483-2 Readings in Music Education - [FPA] May be repeated for up to 6 hours. Prerequisite: permission of instructor.
485-2 Piano Technology for the Pianist-[FPA] A hands on look at the acoustics and mechanics of the piano, including regulation, tuning, maintenance, and purchasing. Not for graduate credit. Prerequisite: MUS 225a,bor permission of instructor.
487-2 Computer Music Workshop for Teachers - [FPA] Designed for in-service teachers of music wishing to explore hardware and software currently available for use in schools. A hands-on, project-oriented approach is utilized. Limited enrollment. Prerequisite: permission of instructor.
490-0 Graduation Recital - [FPA] (Performance specialization) Public recital by candidates for major in Music Performance and Music Education. Prerequisite: Grade of C or better in MUS 140/141-440/441 A-X.
495-12 Supervised Internship in Music Business - [FPA] Involves at least 15 weeks ( 10 weeks for summer internships) of full-time (minimum 4-5 hours per day) work experience with
music industry under supervision of faculty and/or person in music industry. Not for graduate credit. Prerequisite: 395(6).
499-1 to 3 Independent Study - [FPA] Independent research under the supervision of a faculty specialist. May be repeated up to 6 hours. Prerequisite: permission of instructor.

\section*{Nursing (NURS)}

199-0 Nursing Cooperative Education Internship - Supervised work activity with hospitals, agencies, or organizations providing a learning environment for nursing students. Students will receive a grade of pass or no credit.
200R-0 Accelerated RN/BS Program Immersion — This program immersion equips students with the program, technology, and library skills needed to be successful in the Accelerated RN/BS Program.

\section*{231-4 Examination of the Role of the Professional Nurse-}

Focus on the examination of various roles, functions, and tools of the nurse. Use of therapeutic communication, clinical reasoning, evidence, and components of patient-centered care.
234-3 Human Development Across the Lifespan - Study of human growth and development and variations from conception to old age. Includes development of physiological, psychological, sociocultural, moral, ethical and spiritual systems. Prerequisites: PSYC 111 or consent of instructor for non-majors. Advisor registration required.
240-4 Pathophysiology - [LS] Applies major concepts from sciences and humanities to explain health alterations in individuals of all ages. Organized according to Gordon's functional health pattern categories. Prerequisites: BIOL 240 a,b and BIOL 250; CHEM 120a,b/124a,b or CHEM 120n/124n or equivalents; admission to the School of Nursing or consent of instructor. Advisor registration required.
240R-4 Pathophysiology (RN to BS only) — [LS] Applies major concepts from sciences and humanities to explain health alterations in individuals of all ages. Prerequisites: BIOL 240 a,b and BIOL 250; CHEM 120 or equivalents with a grade of C or better. Advisor registration required.
246-6 Foundation and Assessment in Nursing Practice Fundamental concepts and health assessment skills used in nursing practice as organized by Gordan's Functional Health Patterns. Includes classroon, lab, and practicum experiences.

\section*{299-0 Nursing Cooperative Education Internship}
- Supervised work activity with hospitals, agencies, or organizations providing a learning environment for nursing students. Students will receive a grade of pass or no credit. Advisor registration required.
308-1 to 8 Special Topics in Nursing - Selected topics of special interest, such as complex physiologic/ psychological concepts, transcultural nursing, nursing history, policy formation, legal aspects of nursing practice, gerontological nursing. Prerequisites: completion of Semester 5 nursing courses. Advisor registration required.
335R-3 Health Assessment Strategies to Promote Wellness (RN to BS only) - Health assessment, health literacy for health education and promotion. Prerequisites: 240 R with grades of C or better. Advisor registration required.
341 A- 2 Pharmacology for Nurses- Adult MedicineExamine pharmacotherapeutic agents used in the treatment of illness and the promotion, maintenance, and restoration of wellness in diverse individuals across the lifespans.

\section*{Nursing (NURS)}

341B-2 Pharmacology for Nursing- Specialty CoursesExamine pharmacotherapeutic agents used in the treatment of illness and the promotion, maintenance, and restoration of wellness in diverse individuals across the lifespan.

\section*{350R-3 Movies and Mental Illness: Understanding} Psychopathology - This course focuses on the portrayal of mental illness in films. Contemporary social issues such as stigma and discrimination will be examined. Prerequisites: completion of PSYC 111, Nursing major: completion of NURS 352, NURS 353, NURS 354, or NURS 355 or Psychology major: junior or senior level with grades of C or better. Advisor registration required.
351-2 Basic ECG Interpretation - Identify dysrhythmias. Identify waveforms and associated physiologic processes. Analyze and interpret ECG rhythms and dysrhythmias. Prerequisites: completion of 240 a and 240 b with grades of C or better. Advisor registration required.
352-5 Nursing Care of the Young and Middle Aged Adult - Nursing management of responses to actual and potential health problems that typically occur during the young and middle-adult years of life. Prerequisites: completion of 240, \(241,242,243,244\) and 245 with grades of \(C\) or better. Advisor registration required.
353-5 Care of the Older Age Adult - Focuses on the nursing management of human responses to actual and potential health problems that typically occur in older adults. Prerequisites: \(240,241,242,243,244\), and 245 with grades of C or better. Advisor registration required.
354-5 Care of Women and Childbearing Families - Nursing management of human responses to common actual and potential health problems of women and childbearing families. Prerequisites: completion of \(240,241,242,243,244\) and 245 with grades of C or better. Advisor registration required.
355-5 Care of Children and Adolescents - Nursing management of human responses to actual and potential health problems that typically occur during childhood and adolescence. Prerequisites: completion of \(240,241,242,243,244\) and 245 with grades of C or better. Advisor registration required.
399-0 Nursing Cooperative Education Internship - Supervised work activity with hospitals, agencies, or organizations providing a learning environment for nursing students. Students will receive a grade of pass or no credit. Advisor registration required.
472-1 or 3 Nursing Research - Emphasis on research process and interpretation of findings for use as a knowledgeable consumer in developing evidence based professional nursing practice. Prerequisites: \(352,353,354\), 355 with grades of C or better or consent of instructor. Advisor registration required.
472R-3 Scholarly Inquiry: Connecting Research to Practice (RN to BS only) - Emphasis on utilizing the principles of nursing research to integrate all levels of evidence to develop projects to improve patient and/or system outcomes. Includes completion of Capstone I. Prerequisites: STAT 107 or equivalent, \(240 \mathrm{R}, 335 \mathrm{R}\), and 475 R with grades of C or better. Advisor registration required.
474-5 Care of Persons with Mental Health Needs Nursing management of the person with actual or potential mental health needs. Not for registered nurses. Not for graduate credit. Prerequisites: \(352,353,354\) and 355 with grades of C or better, or consent of instructor. Advisor registration required.

\section*{Nursing (NURS)}

475-5 Care of Populations - [EH, EUSC]Nursing management of the populations' response to actual and potential health problems. Not for graduate credit. Prerequisites: \(352,353,354\) and 355 with grades of C or better, or consent of instructor. Advisor registration required.
475R-5 Care of Populations (RN to BS only) - [EH, EUSC] Nursing management of the populations' response to actual and potential health problems. Not for graduate credit. Prerequisites: ENG 101, ENG 102, SPC 101 or 103, RA 101, PHIL 320 or 321,240 , and 335 R or equivalents with grades of C or better. Advisor registration required.
476-5 Care of Persons with Complex Needs - Nursing care of the individuals of all ages with complex health problems that involve the acute and chronic aspects of functional health problems. Not for Registered Nurses. Not for graduate credit. Prerequisites: \(352,353,354\) and 355 with grades of C or better, or consent of instructor. Advisor registration required.
479-1 Senior Assignment I - Synthesizing the portfolio experience and integrating the best aspects of the baccalaureate experience. Prerequisite: completion of required courses at sophomore and junior level with grades of C or better. Advisor registration required.
479A-1 Senior Assignment I -Focus of the course is to synthesize the portfolio experience and integrate the best aspects of the baccalaureate experience. Prerequisite: completion of required courses at sophomore and junior level with grades of C or better. Advisor registration required. (ABS only)

\section*{480R-4 Nursing Leadership in Healthcare Systems}
(RN to BS only) - This online course explores the role of the nurse as a leader and manager of nursing resources and professional development in a complex healthcare environment; includes clinical capstone III. Prerequisites: \(240 \mathrm{R}, 335 \mathrm{R}, 472 \mathrm{R}, 475 \mathrm{R}, 484 \mathrm{R}\) with grades of C or better. Advisor registration required.
481-3 Nursing Leadership and Management - Role of the nurse as a leader and manager of nursing resources. Includes topics related to professional development. Not for graduate credit. Prerequisites: 472 with a grade of C or better and concurrent enrollment in 474,475 or 476 . Advisor registration required.

\section*{482-4 Transition to Professional Practice Role -} Preceptored experiential course exploring the facets of practice as a professional nurse. Responsible for care provision of groups of people. Not for graduate credit. Prerequisites: \(352,353,354\), and 355 with grades of C or better or consent of instructor. Advisor registration required.
4821-4 Professional Practice Role - Experiential course exploring the facets of practice as a professional nurse. Responsible for care provision of groups of people within a precepted clinical experience.Prerequisites: \(352,353,354\), and 355 . GPA of 3.0 or above in nursing courses. Advisor registration required.
484R-3 Quality, Safety and the Professional Nurse (RN to BS only) - Focus is on knowledge, skills and attitudes required to analyze, develop and implement safe patient care practice. Includes completion of Capstone II. Prerequisites: \(240 \mathrm{R}, 335 \mathrm{R}, 472 \mathrm{R}, 475 \mathrm{R}\) with grades of C or better. Advisor registration required.
489-2 Senior Assignment II - Demonstrating the integration of experiences of baccalaureate and professional education through oral and written communication. Not for

\section*{Nutrition (NUTR) Operations Research (OR) Pharmaceutical Sciences (PHPS)}
graduate credit. Prerequisite: NURS 479 with a grade of C or better. Advisor registration required.
498-1 to 6 Independent Study - Guided study in nursing topics; organized to meet objectives of individuals or small groups of undergraduate students in a particular area of interest. Not for graduate credit. Total earned hours may not exceed 6. Prerequisite: consent of instructor. Advisor registration required.

\section*{Nutrition (NUTR)}

205-3 Food Science - Basic principles of food preparation. Emphasis on food chemistry and function of ingredients.
210-3 Food and Culture - Cultural eating patterns and nutrition-related health problems of various ethnic/racial groups will be explored. Culture and counseling strategies will be emphasized.
319-3 Nutrition Biochemistry - Biochemical mechanisms of nutrition and metabolism.
327-3 Lifecycle Nutrition - Examine nutritional needs and issues throughout the lifespan with special emphasis on preconception, pregnancy, lactation, infancy, childhood, adolescence, and aging.
401-3 Nutrition Education and Counseling - This course teaches communication skills essential for professional practice in development, use, and evaluation of methods and materials for teaching nutrition to different audiences.

408-3 Food Service Management 1 - Food Sanitation and safety, management of human resources and supervision. Emphasis on applications to health-care facilities.
409-3 Large Quantities Food Preparation - This course provides the application of concepts and principles of quantity food preparation and service.
410-3 Food Service Management 2 - This course studies food service subsystems from an organizational and leadership perspective.
411-3 Introduction to Medical Nutrition Therapy - Using nutrition care process as a framework, students learn how to provide nutrition services to patients.
464-3 Senior Seminar in Nutrition - In-depth review and application of issues related to the profession of nutrition.

\section*{Operations Research (OR)}

440-3 Operations Research: Deterministic Models (Same as IE 415) Linear programming, problem formulation, simplex algorithm, transportation and network problems, duality theory, sensitivity theory. Prerequisite: knowledge of FORTRAN, MATH 250 with a grade of C or better, or consent of instructor.
441-3 Operations Research: Stochastic Models - (Same as IE 461) Probabilistic models, elementary queuing theory with single or multiple server systems, use of queues in facility designs, elementary decision theory. Markov processes and decision-making. Prerequisite: STAT 380 or STAT 480a with grades of C or better.
442-3 Operations Research: Simulation - (Same as IE 468) Design of simulation models using a high level simulation programming language. Applications in production, inventory, queuing, and other models. Prerequisites: Knowledge of a programming language and IE 365 or IE 461 or OR 441 or STAT 380 or consent of instructor.

495, 1-3 Independent Study - 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. Prerequisite: written consent of advisor and instructor.

\section*{Pharmaceutical Sciences (PHPS)}

700-4 Principles of Drug Action I - Addresses the chemical and physical properties of drug action. Emphasis placed on absorption, distribution, metabolism and elimination of drugs, receptor theory, structure-activity relationships and toxicology. Not for graduate credit. Prerequisite: Open to Pharmacy students only or by consent of dept chair.
701-2 Principles of Drug Action II - Addresses the chemical and physical properties of drug action. Emphasis placed on drug action for the central nervous system, hormones, metabolic syndrome, microbial diseases and cancer. Not for graduate credit. Prerequisite: Open to pharmacy students only or by consent of department chair.
702-3 Biochemical Principles of Pharmacy — Addresses molecular biology basis for drug action and human diseases. Biochemical pathways, enzyme structure and regulation, and metabolism of nutrients and food constituents covered. Prerequisite: Open to pharmacy students only or by consent of department chair.
703-2 Principles of Pharmacogenomics - 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 students only or by consent of department chair.
704-2 Biopharmaceutics and Drug Delivery I - Addresses drug absorption process, Fickian mass transport concepts and mathematical models. Common dosage forms and delivery systems are also presented. Not for graduate credit. Prerequisite: Open to Pharmacy students only or by consent of department chair.
705-2 Biopharmaceutics and Drug Delivery II - Addresses drug product pre-formulation, formulation, and manufacture including influence on patient product performance.
Physicochemical factors relevant to drug administration, problem solving, and patient counseling emphasized.
Prerequisite: Open to pharmacy students only or by consent of department chair.
707-2 Pharmacy Skills and Techniques - Addresses the mathematical and kinesthetic skills necessary for pharmacy practice. Laboratory sessions provide an environment to practice compounding skills. Prerequisite: Open to pharmacy students only or by consent of department chair.
720-3 Biopharmaceutics and Drug Delivery IIIAddresses the physicochemical \& manufacturing factors affecting drug absorption, distribution, metabolism and elimination. The mathematical modeling for determining a patient's drug dosage regimen is covered. Not for graduate credit. Prerequisite: Open to pharmacy students only or by consent of department chair.

722-3 Microbiology \& Immunology - A study of the microbiology of infectious diseases and principles of immunology. The pharmacology and therapeutics of immunologic disorders are also covered. Not for graduate credit. Prerequisite: Open to pharmacy students only or by consent of department chair.

\section*{Pharmacotherapeutics (PHPT) Pharmacy Administrative Sciences (PHAS) Pharmacy Electives (PHEL)}

745-2 Pharmaceutical Biotechnology — Survey of biotechnology therapeutics developed using modern biological approaches and review of basic science including mechanism of action at the biochemical level. Prerequisite: Open to Pharmacy students only. Prerequisite: Open to pharmacy students only or by consent of department chair.

\section*{Pharmacotherapeutics (PHPT)}

724-5 Integrated Pharmacotherapeutics: Cardiovascular - Addresses pathophysiology, pharmacology, medicinal chemistry, and therapeutics of the cardiovascular system. Designing, implementing, monitoring, evaluating and adjusting care plans emphasized. Not for graduate credit. Prerequisites: Open to School of Pharmacy Students only.
725-5 Integrated Pharmacotherapeutics III: Infectious Diseases - Addresses pathophysiology, pharmacology, medicinal chemistry, and therapeutics of infectious diseases. Designing, implementing, monitoring, evaluating and adjusting care plans emphasized. Not for graduate credit. Prerequisites: Open to School of Pharmacy Students only.
726-4 Integrated Pharmacotherapeutics: Endocrine/ Metabolic/Renal - Addresses pathophysiology, pharmacology, medicinal chemistry, and therapeutics of the endocrine, metabolic, and renal systems. Designing, implementing, monitoring, evaluating and adjusting care plans emphasized. Not for graduate credit. Prerequisites: Open to School of Pharmacy Students only.

727-4 Integrated Pharmacotherapeutics: GI/ Rheumatology/Pulmonary - Addresses pathophysiology, pharmacology, medicinal chemistry, and therapeutics of the gastrointestinal, pulmonary and musculoskeletal systems. Designing, implementing, monitoring, evaluating and adjusting care plans emphasized. Not for graduate credit. Prerequisites: Open to School of Pharmacy Students only.
740-5 Integrated Pharmacotherapeutics: Psychiatry and Neurology - Addresses pathophysiology, pharmacology, medicinal chemistry, and therapeutics of psychiatric and neurological disorders. Designing, implementing, monitoring, evaluating and adjusting care plans emphasized. Prerequisites: Open to School of Pharmacy Students only.
741-4 Integrated Pharmacotherapeutics: Oncology and Hematology — Addresses pathophysiology, pharmacology, medicinal chemistry and therapeutics of oncologic and hematologic disorder. Designing, implementing, monitoring, evaluating and adjusting care plans emphasized. Prerequisites: Open to School of Pharmacy Students only.
742-2 Integrated Pharmacotherapeutics: Women and
Men's Health - Addresses pathophysiology, pharmacology, medicinal chemistry and therapeutics of women's and men's health problems. Designing, implementing, monitoring, evaluating and adjusting care plans emphasized. Prerequisites: Open to School of Pharmacy Students only.
743-2 Integrated Pharmacotherapeutics: Other Topics Addresses pathophysiology, pharmacology, and therapeutics of various disorders not covered in previous therapeutics courses. Designing, implementing, monitoring, evaluating and adjusting care plans emphasized. Prerequisite: Open to Pharmacy students only.

\section*{Pharmacy Administrative Sciences (PHAS)}

708-3 Health Care Systems - Covers health care providers and networks, principles for managing the medication use system and resource management, quality assessment
strategies, pharmacy benefits and insurance systems. Prerequisite: open to pharmacy students only or by consent of department chair.

\section*{709-2 Health Care and Financial Management -} Addresses principles of business, marketing, strategic planning and financial management. The economic and political environment of the American health care system addressed. Prerequisite: open to pharmacy students only or by consent of department chair.

716-1 Ethical Issues in Healthcare - This course is structured as an interprofessional course where pharmacy students will collaborate with dental students to discuss ethical issues encountered in health care. Codes of professionalism and ethics will be introduced. Ethical principles and the ethical decision making process will be addressed.

728-2 Human Resources Management — Addressing principles for recruiting, hiring, training, developing, supervising, motivating, retaining, and evaluating professional and non-professional staff. Principles of effective leadership are covered. Prerequisite: open to pharmacy students only or by consent of department chair.

733-3 Pharmacy Law - Covers legal requirements for medications and pharmacy practice. Ethical principles needed for pharmacy practice are also covered. Prerequisite: open to pharmacy students only or by consent of department chair.
753-2 Management Selective: Community — Designed to provide an understanding of those topics relevant to the management and administration of a community pharmacy as a small business. Prerequisite: open to pharmacy students only or by consent of department chair.
755-2 Management Selective: Institutional — Designed to provide a foundational knowledge base and develop management and leadership skills relevant to institutional pharmacy practice. Prerequisite: open to pharmacy students only or by consent of department chair.

\section*{Pharmacy Electives (PHEL)}

400-3 Introduction to Organic Medicinal Chemistry Introductory course in medicinal chemistry which addresses the relationship of chemical structure to biological activity. Not open to professional Pharmacy students. Prerequisites: CHEM 241A and 241B, CHEM 351 or 451A, BIOL 150 and 151, with C or better for all prerequisites.
402-3 Introduction to the Pharmaceutical Sciences Introduces the core principles in the pharmaceutical sciences: Medicinal Chemistry, Pharmacology, Pharmaceutics, and Drug Therapy. Not open to professional Pharmacy students. Prerequisite: Previous credit with a grade of C or better, or concurrent enrollment in CHEM 241a or equivalent.
760-3 Orientation to Teaching - Explores learning and motivation theories, teaching philosophies, the culture of higher education, the scholarship of teaching and learning, and the design of learning units. Prerequisite: open to pharmacy students only or by consent of department chair.
761-3 Instructional and Assessment Strategies Introduces various instructional and formative and summative assessment strategies with applications to the design of a learning unit. Prerequisites: open to pharmacy students only or by consent of department chair and PHEL 760 with C or better.

763-3 Drug Induced Diseases - latrogenic events secondary to drug therapy including medication errors, adverse drug events, drug-drug, and drug-disease interactions

\section*{Pharmacy Electives (PHEL)}
using an organ-system approach. Prerequisite: open to pharmacy students only or by consent of department chair.
764-2 Pain \& Palliative Care - In-depth overview of pain management, hospice, and palliative care practice and health system models. Prerequisite: open to pharmacy students only or by consent of department chair.
765-3 Pediatric Pharmacotherapy - Addresses the pharmacotherapy of select childhood disease states for ensuring the proper care of pediatrics and adolescents. Prerequisite: open to pharmacy students only or by consent of department chair.
766-3 Diabetes Care and Experiences - Addresses medical nutrition therapy, pharmacotherapy, advanced monitoring considerations and devices for the diabetic patient. Prerequisite: open to pharmacy students only or by consent of department chair.
767-2 Histopathology - A look at normal and diseased tissues, with an emphasis on the pharmacological applications to the pathological states.
768-2 Addiction - Provides a review of addiction medicine as it relates to the pharmacy professional and to serve a prevention function within the profession. Prerequisite: open to pharmacy students only or by consent of department chair.
769-2 Introduction to the Drug Discovery Process Introduces the basic framework involved in designing a drug, taking it through the approval process, and bringing it to market.
770-3 Medicinal Chemistry: Theory and Practice - An introductory course in medicinal chemistry addressing the relationship of chemical structure to pharmacological action. Emphasis on drug-receptor interactions and drug targets.
771-2 Medical Devices and Supplies - Overview of medical devices and supplies used by patients in home and/or clinical settings. Prerequisite: open to pharmacy students only or by consent of department chair.
772-2 Introduction to Nuclear Pharmacy - Introduction to the specialty of nuclear pharmacy. The topics presented are radiopharmaceuticals, radioactive decay, instrumentation, production of radionuclides, radiation protection, and radiation biology. Prerequisite: open to pharmacy students only or by consent of department chair.
773-2 Advanced Pharmacogenomics - Extension of the principles of pharmacogenomics from PHPS 703, conducting an in depth examination of genetic effects on drug metabolism and adverse events. Prerequisite: open to pharmacy students only or by consent of department chair.
774-3 Advanced Infectious Diseases Pharmacotherapy - In-depth overview of antimicrobials, infectious diseases, and treatment guidelines. Prerequisites: open to pharmacy students only or by consent of department chair and PHPT 725 with C or better.
775-2 Perspectives of Mental Health - Enhances familiarity with the mental health system, psychopharmacology and the treatment of mental illnesses, and to define the role of pharmacists in providing mental health care.
776-2 Critical Care Pharmacotherapy - Pathophysiology and therapeutic management of commonly encountered acute intensive care medical problems.

\section*{777-2 Application of Clinical Guidelines in Ambulatory}

Care - Designed to review practice guidelines for common

Pharmacy Electives (PHEL)
ambulatory care disease states and allow students to expand and apply their therapeutic knowledge. Restriction: Must be enrolled in one of the following majors: Pharmacy and must be in the third professional year. Prerequisite: PHPR 713, 724, \(726,727,740\) and 742.
778-2 Sterile Pharmaceutical Product Preparation - Indepth examination of the skills and knowledge needed in the preparation of sterile products. Restrictions: Must be enrolled in one of the following majors: Pharmacy.
779-2 Advanced Self Care - This course is a study of nonprescription drugs. Emphasis will be placed on selection of the appropriate nonprescription drug for a patient and patient counseling. Prerequisite: open to pharmacy students only or by consent of department chair.
780-2 Managed Care Pharmacy - Fundamental concepts in managed care pharmacy and the impact on the health care system.
781-2 Methods in Drug Discovery - Examines how drugs are discovered and brought to the clinic. Focus on current technologies for drug research, with emphasis on computational methods.
782-2 Advanced Cardiovascular Pharmacotherapy This elective will allow students to become more familiar with disorders of the cardiovascular system through lecture, primary literature review and pharmaceutical care plan development. Prerequisite: open to pharmacy students only or by consent of department chair.
783-2 Acute Care Pharmacotherapy - This course develops patient care skills in health system clinical pharmacy using case-based patient scenarios to emphasize dynamic drug and disease state management. Prerequisites: open to pharmacy students only or by consent of department chair and PHPT 724, PHPT 725, PHPT 726, PHPT 727 with C or better.

\section*{784-3 Spanish Language and Culture for Health}

Professionals - (Same as IS 402) Expand knowledge of Spanish language and culture with emphasis on preparing to work in health related fields. Prerequisite: SPAN 101 and 102 with a grade of C or better, score of at least 355 on Spanish proficiency test, or approval from instructor.
785-3 Compounding - Pharmaceutical topics are developed in the context of drug product formulation and pharmaceutical compounding. Lab exercises reinforce topics covered in lecture.
786-3 Personalized Medicine - Detailed analysis of pharmacogenomic variation affecting molecular kinetics and dynamics, FDA genotype-driven biomarker advice, and inherited susceptibilities to adverse outcomes in pharmacotherapy. Prerequisite: open to pharmacy students only or by consent of department chair.
787-3 Global Health - (Same as IS 403) Focuses on biological and psych-social-economic aspects of global health issues from a population perspective. Opportunity to work with other health professionals to address challenges.
788-2 Advanced Clinical Hematology/Oncology Overview - Provides additional education in clinical oncology. Students will learn about topics that are not addressed in the Integrated Therapeutics course on this topic. Prerequisite: Concurrent enrollment in PHPT 741
789-2 Medicinal Plants and Tropical Diseases - Combines lectures, readings and projects with a field-based experiential component. The topics will cover a broad perspective including

\section*{Pharmacy Electives (PHEL)}
natural resources and tropical diseases. Prerequisite: open to pharmacy students only or by consent of department chair.
790-2 Community Pharmacy Application and Skills - A course focusing on the application of community pharmacy practice topics. Rapid diagnostic testing, patient counseling, verification of prescriptions and business aspects will be emphasized. Prerequisite: open to pharmacy students only or by consent of department chair.

791-2 Pharmacy Advocacy and Leadership Development - This course will focus on developing the student's leadership skills and communication skills as an advocate for the profession of Pharmacy.

\section*{Pharmacy Experiential Programs (PHEP)}

714-1 Introductory Pharmacy Practice Experience I: Professional Role Observations - Introduction to the practice of pharmacy with experiences in both community and institutional pharmacy practice. The purpose is to enhance awareness of the role of pharmacists in these practice settings. Not for graduate credit. Prerequisite: Open to pharmacy students only.

\section*{715-1 Introductory Practice Experience II: Service}

Learning - Students provide a health-related service in a community setting and gain social and civic responsibility awareness. Not for graduate credit. Prerequisite: Open to pharmacy students only.
730-2 Introductory Pharmacy Practice Experiences III - Students gain experiences in community or health system pharmacy. Options for other practice settings such as long term care or home IV therapy exist. Students develop skills for pharmacy practice. Not for graduate credit. Prerequisite: open to pharmacy students only.
731-2 Introductory Pharmacy Practice Experience IV Students gain experiences in community or health system pharmacy. Options for other practice settings such as long term care or home IV therapy exist. Not for graduate credit. Prerequisite: open to pharmacy students only.

732-1 Pharmacy Rounds I — Students participate in weekly seminar presentations over either the fall or spring semesters where taking sides on a contemporary issue in pharmacy practice is developed. Not for graduate credit. Prerequisite: open to pharmacy students only.

746-1 Pharmacy Rounds II - Participate in independent and professional development through a variety of suggested pharmacy learning activities and processes to promote lifelong learning. Prerequisite: open to pharmacy students only.
747-1 Pharmacy Rounds III - Students participate in the practical applications of pharmacy practice, with an emphasis on evidence-based medicine and integration of disease state management. Prerequisite: open to pharmacy students only.
751-1 Advanced Pharmacy Practice Experience
Preparation - Prepares students for advanced pharmacy practice experiences in general, and the capstone experience in particular. Prerequisite: open to pharmacy students only.
752-0 Performance-Based Assessment - III - The performance-based assessment is intended to be an evaluation of skills and abilities for a student at their current level of education. Prerequisites: open to pharmacy students only and must be in the third professional year.
780-6 Advanced Pharmacy Practice: Community Pharmacy - Places students in a community pharmacy practice environment where they can apply their didactic knowledge, develop core competencies, and gain patient care

\section*{Pharmacy Experiential Programs (PHEP)}
experience. Prerequisite: open to pharmacy students only and must be in the fourth professional year.

\section*{781-6 Advanced Pharmacy Practical Experience:}

Hospital - Places students in a hospital practice environment where they can apply their didactic knowledge, develop core competencies, and gain patient care experience. Prerequisite: open to pharmacy students only and must be in the fourth professional year.

\section*{782-6 Advanced Pharmacy Practical Experience:}

Ambulatory - Places students in an ambulatory care practice environment where they can apply their didactic knowledge, develop core competencies, and gain patient care experience. Prerequisite: open to pharmacy students only and must be in the fourth professional year.
783-6 Advanced Pharmacy Practical Experience: Acute Care - Places students in an acute care setting where they can apply their didactic knowledge, develop core competencies, and gain patient care experience. Prerequisite: open to pharmacy students only and must be in the fourth professional year.

\section*{784-6 Advanced Pharmacy Practical Experience:}

Specialized - Places students in a specialized practice environment where they can apply their didactic knowledge, develop core competencies, and gain patient care experience. Prerequisite: open to pharmacy students only and must be in the fourth professional year.

\section*{785-6 Advanced Pharmacy Practical Experience:}

Specialized - Places students in a specialized practice environment where they can apply their didactic knowledge, develop core competencies, and gain patient care experience. Prerequisite: open to pharmacy students only and must be in the fourth professional year.
786-6 Advanced Pharmacy Practical Experience:
Specialized - Places students in a specialized practice environment where they can apply their didactic knowledge, develop core competencies, and gain patient care experience. Prerequisite: open to pharmacy students only and must be in the fourth professional year.

\section*{789-3 Advanced Pharmacy Practical Experience:}

Capstone - The capstone experience requires the student to develop and complete a scholarly, pharmacy-related project. Prerequisite: open to pharmacy students only and must be in the fourth professional year.
795-0-4 Independent Study - Provides students with the opportunity to pursue research and study in an area of interest in pharmaceutical sciences or pharmacy practice. May be repeated for a maximum of 4 hours. Prerequisite: open to pharmacy students only or by consent of department chair.
799C-0 Pharmacy Internship; Community — Students gain experience in community, chain or independent pharmacy practice. Not for graduate credit. Prerequisite: Enrolled in Pharmacy School.

799H-0 Pharmacy Internship; Health System — Students gain experience in health system institutional pharmacy practice. Not for graduate credit. Prerequisite: Enrolled in Pharmacy School.

799L-0 Pharmacy Internship; Long Term Care - Students gain experience in long-term care pharmacy practice. Not for graduate credit. Prerequisite: Enrolled in Pharmacy School.

7990-0 Pharmacy Internship; Other Practice Settings Students gain experience in other more nontraditional practice sites. Not for graduate credit. Prerequisite: Enrolled in Pharmacy School.

\section*{Pharmacy Practice (PHPR)}

706-2 Introduction to Pharmacy Practice - Addresses communication and counseling skills needed for pharmacy practice, the pharmaceutical care planning process, basic drug information about top drug products, and medical terms.
Not for graduate credit. Prerequisite: Open to pharmacy students only or by consent of department chair.

710-3 Biomedical Literature Evaluation — 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.
711-2 Drug Information - Develops ability to retrieve and evaluate literature and to utilize information resources for pharmacy practice. Drug use policy for medication management is also addressed. Prerequisite: Open to pharmacy students only or by consent of department chair.
713-4 Self Care and Alternative Medicines - Addresses use of nonprescription medications and herbal products used for self-care. Patient counseling and problem solving skills are emphasized. Prerequisite: Open to pharmacy students only or by consent of department chair.
721-2 Clinical Pharmacokinetics - Students gain experiences in using mathematical models to design drug dosage regimens desired for optimal clinical outcomes. Not for graduate credit. Prerequisite: Open to pharmacy students only or by consent of department chair.

\section*{735-3 Physical Assessment \& Patient Care Skills -}

Develops physical assessment, laboratory tests interpretation and patient care skills for drug therapy and disease state management. Not for graduate credit. Prerequisite: Open to pharmacy students only or by consent of department chair.
744-2 Health Promotion and Literacy - Prepares students to provide care to a diversity of individuals by understanding and respecting differences including attention to health literacy concerns. Prerequisite: open to pharmacy students only or by consent of department chair.
748-2 Medication Therapy Management Services - An introduction to the core elements of Medication Therapy Services (MTMS) and application of MTMS principles to patient care plans. Prerequisite: open to pharmacy students only.

749-1 Infectious Disease Prevention and Immunization Training - Students receive specialized training for prevention of infectious diseases controlled through immunization. Prerequisite: open to pharmacy students only.

\section*{Philosophy (PHIL)}

111-3 Introduction to Philosophy - [BHUM, IFAH] [IAI No. H4 900] Eras, branches, and problems of philosophy, including metaphysics; theory of knowledge; ethics.

207-3 Probability and Decision - [BICS, SKLG] Study and practice of critical thinking and correct problem solving methods concerned with conditions of uncertainty: basic probability calculus and decision theory and their applications.
213-3 Introduction to Deductive Logic - [BICS, DFAH] Formal techniques for analyzing correct deductions. Propositional, syllogistic, class, and predicate logic with quantifiers: applications to philosophical problems.
220-3 Religion, Reason and Humanity - [BHUM, DFAH] Introduction to fundamental issues in study of religion, and
relationship to religion, morality and human nature: Existence of God, evil, and after life.

222-3 Environmental Ethics - [BHUM] Ethical issues arising from human interaction with the natural environment.
225-3 Contemporary Moral Issues - [BHUM] This course explores contemporary moral controversies such as abortion, euthanasia, torture, capital punishment, international justice, and sexual morality.

226-3 Philosophy and Film - [BHUM] Analysis of selected films with respect to philosophical issues and aesthetic, moral, metaphysical, and epistemic concerns.
228-3 Philosophy and Literature - [BHUM] An examination of various philosophical problems and literary texts. Sample topics include the nature of justice, human freedom, moral psychology, and the good life.
230-3 Atheism: A Philosophical Analysis - [BHUM, DFAH] An analysis of positive and negative atheism, its rationale, and its implications.
233-3 Philosophies and Diverse Cultures - [BHUM, DFAH, EGC, IC] [IAI No. H4 903N] Representative thinkers, texts, and movements outside the Western philosophical tradition, e.g., from India, East Asia, Africa, Latin America and the Middle East.

300-3 Ancient Philosophy - [BHUM, DFAH, EGC, IC] Major thinkers and movements from c. 600 BCE to c. 30 CE .
301-3 Medieval Western Philosophy - [BHUM, DFAH, EGC, IC] Major thinkers and movements from c. 4th century through 16th century.
303-3 Nineteenth Century Western Philosophy - [BHUM, DFAH, EGC, IC] Major thinkers and movements of 19th century.
304-3 Eighteenth Century Philosophy - [BHUM, DFAH] Major thinkers and movements from 18th century Europe.

305-3 Existentialism - [BHUM, DFAH, EGC] A study of philosophical problems concerning the meaning of life. Topics include meaning, freedom, consciousness, subjectivity, human existence, fear, death, moral tradition.
306-3 American Philosophy - [BHUM, DFAH] Major thinkers and movements; e.g., Puritanism, revolution and democracy, transcendentalism, pragmatism, Royce, Santayana, Whitehead, and contemporary criticism.

307-3 Seventeenth Century Philosophy - [BHUM, DFAH] Major thinkers and movements from 17th century Europe.
308-3 Twentieth Century European Philosophy - [BHUM, DFAH, EGC, IC] Representative thinkers of contemporary continental philosophy, such as Husserl, Heidegger, Sartre, Beauvoir, Merleau-Ponty, Ricoeur, Derrida, Foucault, and others.
309-3 Twentieth Century Analytic Philosophy - [BHUM, DFAH] Representative thinkers of analytic movement, such as Frege, Moore, Russell, Ryle, Wittengenstein, and others.
310-3 Theories of Knowledge - [BHUM, DFAH]
Conceptions, sources, limits, and methods of knowing.
314-3 Philosophy of Science - [BHUM, DFAH] Investigation of the nature and methods of physical and social science, and their importance for individuals and society.
320-3 Ethics - [BHUM, DFAH] [IAI No. H4 904] Theories of virtue, obligation, and value; discussions of individual and social morality.

\section*{Philosophy (PHIL)}

321-3 Ethics in the Medical Community - [BHUM, DFAH] Ethical issues arising in health care contexts and practices.
323-3 Engineering, Ethics, and Professionalism [BHUM, DFAH] Issues arising in and affecting professional engineering. Safety assessment, liability, codes, employer/ employee relationships, alleged special responsibilities to protect the public. Prerequisite: junior standing.
325-3 Philosophy of Art - [DFAH] Significance of art as human activity; nature and standards as evidenced in problems of criticism; relation of art to theory and knowledge.
330-3 Metaphysics - [BHUM, DFAH] Problems such as personal identity, mind-body relationship, causality, nature of reality.
331-3 Philosophy, Science and Religion - [BHUM, DFAH] Historically and conceptually important interactions between philosophy, science and religion from the beginning of the scientific revolution to the present.
333-3 Philosophy of Religion - [BHUM, DFAH] [IAI No. H4 905] Problems in epistemology, metaphysics, psychology, and sociology of religion. Questions about divine existence, mystical experience, human suffering, immortality.
334-3 World Religions - [BHUM, DFAH, EGC, IC] [IAI No. H5 904N] Historical and comparative study, particular attention to such non-Christian faiths as Hinduism, Buddhism, Confucianism, Taoism, and Islam.
335-3 Islamic Thought - [BHUM, DFAH, EGC, IC]A scholarly examination of theological and philosophical ideas within the Islamic tradition, from its origins to contemporary schools of thought.

336-3 Christian Thought - [BHUM, DFAH, EGC] Scholarly treatment of historical development of Christian doctrines and thought.
337-3 American Indian Thought - [BHUM, DFAH, EUSC, IGR] Investigation of philosophical issues expressed through oral tradition and cultures of selected indigenous American traditions and in writings of contemporary American Indian thinkers.
340-3 Social and Political Philosophy - [BHUM, DFAH, EGC] Philosophical problems of social and political theory and conduct.
341-3 Marxist Philosophy - [BHUM, DFAH] A critical survey of Marxistideas, their historical antecedents, and attempts at their implementation from the nineteenth century to the present.
343-3 Philosophy of Law - [BHUM, DFAH] (Same as POLS 391) Philosophical discussion of legal problems and issues in contemporary society such as rights, justice, freedom, responsibility, and punishment.
344-3 Women and Values - [BHUM, DFAH, EUSC, IGR] (Same as WMST 344) Examines women's philosophical contributions to traditional areas of value theory including ethics; social, legal and political philosophies; and philosophies of art and religion. Prerequisite: one prior philosophy or women's studies course.
345-3 Women, Knowledge and Reality - [BHUM, DFAH, EUSC] (Same as WMST 345) The course surveys various feminist theories of knowledge, with particular attention to science and how gender influences our claims to knowledge.
346-3 Feminist Theory - [BHUM, DFAH, EUSC, HUM, IGR] (Same as WMST 346) Social philosophy from feminist perspective. Major theoretical works of women's movement. Prerequisite: WMST 200 strongly recommended.

347-3 Philosophy of Race - [BHUM, DFAH, EUSC, IGR] Conceptual analysis of racism, the metaphysics of race, and the moral and political challenges posed by a racialized social order.
348-3 Law and Society - (Same as CJ 348 and POLS 392) Examines the nexus of culture, dispute management and law. We will explore law as a social construct, focusing on law's everyday impact on citizen's lives.
350-3 Philosophy of Mind - [BHUM, DFAH] Explores the relationship between the common sense view and the scientific view of such mental phenomena as thought, free will, and consciousness. Prerequisite: PHIL 106 or consent of instructor.
390-3 Philosophy Here and Abroad - [BHUM, DFAH, EGC] Variable content course with a study abroad component. Participation in the study abroad is required for completing the course. Repeatable to 6 credit hours. Prerequisite: consent of instructor.
411-3 Advanced Logic - [BICS, DFAH] Metatheory of first order logic and modal logic. May include other topics in advanced logic such as set theory, probability theory, or fuzzy logic.
415-3 Philosophy of Language - [BHUM, DFAH] A study of philosophical problems concerning language. Includes topics such as meaning, reference, truth, semantic puzzles, speech acts and metaphor. Prerequisite: junior or senior standing or consent of instructor.
440-3 Classical Political Theory - [BHUM, DFAH, EGC, IC] (Same as POLS 484) Works of major political thinkers from ancient times to Renaissance, including Plato, Aristotle, St. Augustine, St. Thomas, and Machiavelli. Prerequisite: junior standing or higher.
441-3 Modern Political Theory - [BHUM, DFAH, EGC, IC] (Same as POLS 485) Works of major political thinkers from Renaissance to present, including Hobbes, Locke, Rousseau, Hegel, Marx, Mill, and Nietzsche. Prerequisite: junior standing or higher.
480-3 Senior Assignment - Independent research on philosophical topics. Required of all philosophy majors.
481-3 Media Ethics - [DFAH, HUM] Critical examination and analysis of main values, issues, and arguments associated with media functions, performance, business practices, and with public perceptions of the media. Prerequisite: junior standing.
490-3 Philosophy Seminar - 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 above PHIL 106 , or consent of instructor.
495-1 to 3 Independent Readings - Independent study on tutorial basis. Undergraduate students normally limited to 3 hours; graduate students normally limited to 9 hours. Prerequisite: consent of instructor and department chairperson.
496-3 Advanced Topics in Ethical Theory - [BHUM, DFAH, HUM] Variable content course on topics in ethical theory. Including, but not limited to, topics in metaethics, normative ethics and existential ethics.
498-3 Legal Theory - [DFAH, DSS, HUM] (Same as POLS 498) 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. Prerequisite: PHIL 111 or POLS 390.

\section*{Physics (PHYS)}

111-3 Concepts of Physics - [BPS, INSM] [IAI No. P1900] Introduction to our understanding of the universe and how it is achieved. Includes selections from: motion, energy, heat, fluids, electricity, magnetism, sound, light, atoms. Prerequisite: a grade of C or better is required in all prerequisites. One year of high school algebra or AD 095 or equivalent; and one year of high school geometry or AD 085 or equivalent.
112-1 Conceptual Physics Laboratory - [BPS,DNSM, EL, LNSM] Weekly introductory laboratory dealing with mechanics, heat, electricity, sound and light. Emphasis placed on measurements and data analysis. Prerequisite: concurrent enrollment in 111.

115-3 Energy and the Environment - [BPS, DNSM] [IAI No. P1 901] Problems and prospects of meeting national and worldwide energy demands. Scientific background, role, and environmental impact of fossil fuel, nuclear, solar, geothermal, and other technologies. Prerequisites: a grade of C or better is required in all prerequisites. One year of high school algebra or AD 095 or equivalent; and one year of high school geometry or \(A D 085\) or equivalent.

116-3 Music and Acoustics - [BPS, DNSM] [IAI No. P1 901] Vibrations; nature and propagation of sound waves; musical pitch and intervals; tone quality, analysis, and synthesis; instruments; speech; ears and hearing; psychological aspects; other topics. Prerequisites: a grade of C or better is required in all prerequisites. One year of high school algebra or AD 095 or equivalent; and one year of high school geometry or AD 085 or equivalent.
117-3 Light and Color - [BPS, DNSM] [IAI No. P1 901] Nature of light; ray and wave phenomena; optical devices; the eye; color theory; lasers and holography; applications to art, photography, and other visual media. Prerequisites: a grade of C or better is required in all prerequisites. One year of high school algebra or AD 095 or equivalent; and one year of high school geometry or AD 085 or equivalent.

118-3 Astronomy — [BPS, DNSM] [IAI No. P1 906] Introduction to observation; seasons; light; telescopes; orbits; solar system; stellar structure, evolution and classification; galaxies and cosmology. Includes in-class activities and supplemental viewing sessions. Prerequisites: a grade of C or better is required in all prerequisites. One year of high school algebra or AD 095 or equivalent; and one year of high school geometry or AD 085 or equivalent.
118L-1 Astronomy Laboratory - [BPS, INSM, EL] An experiential laboratory course utilizing both software and realtime observation concerning astronomical objects.
120-3 Frontiers In Physics - [BPS, DNSM] Introductory Course designed to highlight, through examples, how progress and discoveries are made in physics. Topics selected from historical and/or contemporary physics. May include seminar. Prerequisites: MATH 125 with grade of C or better, or permission of the instructor.
131-4 College Physics I: Mechanics and Heat - [BPS, INSM] This course is the first semester of a two semester sequence. Designed to meet pre-medical and biological science requirements. Topics include mechanics, fluids, energy and heat and gravitation. Prerequisites: MATH 125 or MATH 150 or MATH 152.

131L-1 College Physics I Laboratory: Mechanics and Heat - [BPS, EL, INSM] This course is a laboratory for College Physics I. Topics include physical measurements,
data analysis, lab reporting and error analysis. Prerequisites: MATH 125.

132-4 College Physics II: Electricity, Magnetism and Optics - [BPS, DNSM] This course is the second semester of a two semester sequence. Designed to meet pre-medical and biological science requirements. Topics include waves and sound, electrostatics, circuits magnetism, EM waves, optics and modern physics theory. Prerequisite: a grade of \(D\) or better in PHYS 131.

132L-1 College Physics II Laboratory: Electricity, Magnetism and Optics - [BPS, EL, DNSM, LNSM] A lab consisting of experiments designed to complement PHYS 132: physical measurements, data analysis, presentation and error analysis. Prerequisite: a grade of D or better in PHYS 131L.
151-4 University Physics I - [BPS, INSM] [IAI No. P2 900] Calculus-based course designed to meet needs of engineering and science students: Kinematics; dynamics; planar motion; work and energy; momentum; rotational motion; gravitation; fluids. Prerequisites: a grade of C or better is required in all prerequisites. MATH 152 or concurrent enrollment and concurrent enrollment in PHYS 151L.
151L-1 University Physics I Laboratory - [BPS, EL, INSM, LNSM] [IAI No. P2 900L] Physics measurements; data analysis and presentation, error analysis; velocity; acceleration; force and moments; work and kinetic energy, fluids. Prerequisites: concurrent enrollment in 151.

152-4 University Physics II — [BPS, DNSM] [IAI No. P2 900] Calculus-based course designed to meet needs of engineering and science students: bulk properties of matter, oscillations and waves, electric charge; electric fields; Gauss' law; potentials; circuits; magnetic fields; electromagnetic waves. Prerequisites: a grade of C or better is required in all prerequisites; 151 and concurrent enrollment in 152L.
152L-1 University Physics II Laboratory - [BPS, DNSM, EL, LNSM] [IAI No. P2 900L] Physics measurements; data analysis and presentation, error analysis. (a) thermal and bulk properties of matter, simple harmonic motion and waves, electromagnetism, simple circuits, optics. Prerequisites: concurrent enrollment in 152.
192-1 to 3 Freshman Project in Biomedical Physics - With guidance, a freshman investigatory or independent study project in bio- or biomedical physics. Open to all students of other disciplines and to 100-level physics students.
193-1 to 3 Freshman Project in Photonics and Laser Physics - With guidance, a freshman investigatory or independent study project in photonics physics. Open to all students of other disciplines and to 100-level physics students.

196-1 to 3 Freshman Project in Astronomy — With guidance, a freshman investigatory or independent study project in astronomy. Open to all students of other disciplines and to 100-level physics students.
197-1 to 3 Freshman Project in Experimental Physics With guidance, a freshman investigatory or independent study project in experimental physics. Open to all students of other disciplines and to 100-level physics students.
198-1 to 3 Freshman Project in Theoretical Physics - With guidance, a freshman investigatory or independent study project in theoretical physics. Open to all students of other disciplines and to 100-level physics students.
201-4 University Physics III - [BPS, DNSM]
Electromagnetic waves. Physical optics: interference,

\section*{Physics (PHYS)}
diffraction. Introductory special relativity. Thermodynamic laws. Maxwell Boltzmann distributions, equipartition theorem, black-body radiation. Evidence for photons. Bohr atom, matter waves. Prerequisite: a grade of C or better in 151 and 152 .
201L-1 University Physics III Laboratory - [BPS, DNSM, EL, LNSM] Laboratories covering selected topics from electromagnetic waves, physical optics, introductory special relativity, thermodynamic laws and introductory quantum physics. Prerequisite: Concurrent enrollment in 201.

208-3 Space Physics - [DNSM, PS] Mechanics of orbital and sub-orbital flight. Physical, chemical and geologic characteristics of solar system objects determined by exploration and remote sensing. Prerequisite: A grade of C or better is required in 131 and MATH 150.
230-3 Planetary and Solar System Astronomy — Orbital mechanics, telescopes, physical processes, atmospheres, planets, moons, ring systems, outer Solar System, comets, Kuiper belt, formation of planetary systems, extra-solar planets. Prerequisites: Grade of C or better in PHYS 132 and 152.
240-3 An Introduction to Biomedical Physics [BPS, DNSM] Physics applied to human biology and medicine. Applications of mechanics, thermodynamics, electromagnetism; properties of nerves, membranes and fluids; ultrasound, \(x\)-ray, nuclear medicine and MRI.. Prerequisites: Grade of C or better in all of: PHYS 132 or 152, MATH 150

251-4 Waves - [BPS, DNSM] Oscillations, linear approximations. Normal Modes, Fourier analysis. Standing waves, travelling waves, reflection, transmission, sound, electromagnetic waves. Wave packets, bandwidth theorem. Introduction to Fourier Transforms, applications. Prerequisite: A grade of C or better in 132 or 152. Corequisite: MATH 250.

292-1 to 3 Sophomore Project in Biomedical Physics With guidance, a sophomore investigatory or independent study project in bio- or biomedical physics. Prerequisites: Grade of C or better in either PHYS 152 or 132 and permission of the instructor.

293-1 to 3 Sophomore Project in Photonics and Laser
Physics - With guidance, a sophomore investigatory or independent study project in photonics physics. Prerequisites: Grade of C or better in PHYS 152 and permission of the instructor.
296-1 to 3 Sophomore Project in Astronomy - With guidance, a sophomore investigatory or independent study project in Astronomy. Prerequisites: Grade of C or better in PHYS 152 and permission of the instructor.
297-1 to 3 Sophomore Project in Experimental Physics - With guidance, a sophomore investigatory or independent study project in experimental physics. Prerequisites: Grade of C or better in PHYS 152 or PHYS 132 and permission of the instructor.
298-1 to 3 Sophomore Project in Theoretical Physics - With guidance, a sophomore investigatory or independent study project in theoretical physics. Prerequisites: Grade of C or better in PHYS 152 or PHYS 132 and permission of the instructor.
303-3 Thermal Physics - [DNSM, PS] Introduction to thermodynamics; fluids; kinetic theory; statistical distribution functions; applications. Prerequisites: 152, MATH 250.

304-4 Introduction to Quantum Physics - [BPS, DNSM] History of Quantum Physics. Matter waves, uncertainty principle, Schrödinger solutions for confined particles, hydrogen atom. Atomic, nuclear, and solid-state physics. Applications include lasers and semiconductors. Prerequisites: a grade of C or better in 201, 201L, 251; MATH 250.

312-3 Intermediate Physics Laboratory - [PS] Experimental methods in modern physics: modern experimental techniques computer-aided data acquisition; numerical methods; detectors and sensors; data and error analysis. Prerequisite: 304 or concurrent enrollment.
314-3 Modern Data Acquisition and Analysis in Physics [BPS, DNSM, EL] A course in the use of modern computeraided data acquisition and analysis in Physics. Prerequisites: Grades of C or better in each of: PHYS 201, 201L, 251 or permission of the instructor.

\section*{318-3 Theory and Applications of Electronic}

Measurements - [DNSM, BPS, EL] Principles of modern electronic measurements and computer interfacing techniques. Transistor circuits; digital electronics; op-amps; sensors; digital/analog and analog/digital conversions; computer aided data acquisition. Includes weekly two-hour laboratory. Prerequisite: A grade of C or better in either PHYS 132 or PHYS 152.

320-3 Special Relativity - [DNSM, PS] Michelson-Morley experiment; Lorentz transformations; relativistic description of space and time; relativistic kinematics and dynamics; relativistic development of electricity and magnetism. Prerequisites: a grade of C or better in 201, 201L, 251; MATH 250.
321-4 Introduction to Classical Mechanics - [BPS, DNSM] Newtonian mechanics in Cartesian, non-Cartesian coordinate systems. Conservative fields, conservation laws. Forced oscillations, resonance. Introduction to Lagrangian mechanics. Noninertial reference frames. Central forces, orbital dynamics. Prerequisites: a grade of C or better in 201, 201L, 251; MATH 250.

323-4 Statistical Mechanics - [PS] Laws of thermodynamics; equipartition theorem; free energy; Maxwell relations; entropy; Boltzmann statistics; Bose-Einstein statistics; Fermi-Dirac statistics; Ising model; information theory. Prerequisites: a grade of C or better in 201, 201L, 251; MATH 305.

340-3 Biological Physics - [BPS, DNSM] An intermediate course in biophysics and biophysical methods. Topics vary, may include diffusive processes, molecular and cellular biophysics, structural analysis methods, nanobiotechnology and others. . Prerequisite: Grade of C or better in all of: PHYS 201, 240, 251, CHEM 241A.

343-3 Stellar Astronomy - [BPS, DNSM] Basics of interaction of radiation with matter. The Sun, properties of stars, stellar atmospheres, stellar interiors, interstellar medium, formation, evolution of stars and stellar remnants. Prerequisites: Grade of C or better in PHYS 201, 230, 251.

375-1 Seminar - [PS] Selected topics in theories and applications. May be repeated to a maximum of 3 hours, provided no topic is repeated. Pass/№ Credit only. Prerequisite: consent of instructor.
376-1 Career Preparation in Physics - Seminar on: Exploration of post-baccalaureate options in industrial, corporate and academic physics and applied physics. Employment trends. Resume writing. Choosing and applying to graduate programs. Prerequisite: Grade of C or better in both of PHYS 201 and PHYS 251.
390-3 Junior Physics Honors - [DNSM, PS] Directed by student's Physics Honors Program advisor in independent study format on topics chosen jointly by student and advisor. Prerequisites: 304,321 , admission to the Physics Honors Program.

392-1 to 3 Junior Project in Biomedical Physics — With guidance, a junior investigatory or independent study project in bio- or biomedical physics. Prerequisites: Grade of C or better in all of PHYS 201, 240, 251 and permission of the instructor.
393-1 to 3 Junior Project in Photonics and Laser Physics - With guidance, a junior investigatory or independent study project in photonics and/or laser physics. Prerequisites: Grade of C or better in all of PHYS 201, 251 and 410 and permission of the instructor.

396-1 to 3 Junior Project in Astronomy/Astrophysics - With guidance, a junior investigatory or independent study project in Astronomy/Astrophysics. Prerequisites: Grade of C or better in all of PHYS 201, 230, 251 and permission of the instructor.
397-1 to 3 Junior Project in Experimental Physics - [PS] With guidance, a junior project in experimental physics. Prerequisite: Grade of C or better in each of: PHYS 201, 201L, 251 and permission of the instructor.
398-1 to 3 Junior Project in Theoretical Physics - [PS] With guidance, a junior project in theoretical physics. May be repeated for a maximum of 6 hours. Prerequisite: Grade of C or better in each of: PHYS 201, 201L, 251 and permission of the instructor.
405a,b-3 each Introduction to Electromagnetic Field Theory - [DNSM, PS] Vector treatment of the theory. (a) electrostatics in vacuum and in matter; steady currents. (b) magnetism; magnetic materials;electromagnetic radiation. Prerequisites: a) 321 or 323 with a grade of C or better; (b) 405 a with a grade of C or better.
406-4 Electromagnetic Fields and Waves - [DNSM, BPS] 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. Prerequisites: Grade of C or better in PHYS 152 and PHYS 251 or consent of instructor.

410-3 Optics - [BPS, DNSM] Nature of light; photometric quantities; geometrical optics; interference and diffraction; polarization; introduction to lasers; optical properties of materials. May include laboratory component. Prerequisites: a grade of \(C\) or better is required in all prerequisites; 201, 201L, 251 and MATH 305.
415a,b-3 each Wave Mechanics and Atomic Physics - [DNSM, PS] (a) Foundations of quantum mechanics: wave functions; expectation values; operators; Schrödinger equation; simple applications including step potentials and harmonic oscillator; perturbation theory. (b) Topics pertinent to atomic and molecular systems: angular momentum; hydrogen atom; electron spin; atomic transitions and spectra; exclusion principle; multi-electron atoms; molecular structure. Prerequisites: (a) 304, MATH 305; (b) 415 a.
416-4 Principles of Quantum Mechanics - [BPS, DNSM] 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.. Prerequisites: a grade of C or better in each of: PHYS 304 and one of 321 or 323 ; MATH 321 or MATH 355.

419-4 Introduction to Theoretical Physics - [DNSM, PS] Mathematical techniques: vectors; tensors; matrices; differential equations; special functions; boundary value problems; other selected topics. Prerequisites: 304, MATH 305.
430-3 Physics and Astronomy Education Research - [PS] Questions, methodology, data analysis and results of physics
and astronomy education research. Prerequisites: a grade of C or better in 201, 201L, 251.

431-3 Instructional Strategies for Particle and Rigid Body Motion - [PS] Pedagogical innovations, assessments, and inquiry-based activities will be developed for particle and rigid body motion. Addresses Illinois Professional Teaching Physics - Designation Standard \#2. Prerequisites: 151 and Cl 200 , or certified K-12 teacher, or physics graduate status.

\section*{432-3 Instructional Strategies for Physical Waves} and Thermodynamics - [PS] Pedagogical innovations, assessments and inquiry-based activities will be developed for physical waves and thermodynamics. Addresses Illinois Professional Teaching Physics - Designation Standard \#3 and \#4. Prerequisites: 323 and Cl 200 , or certified K-12 teacher, or physics graduate status.

\section*{433-3 Instructional Strategies for Electricity and}

Magnetism - [PS] Pedagogical innovations, assessments and inquiry-based activities will be developed for particle and rigid body motion. Addresses Illinois Professional Teaching Physics - Designation Standard \#2. Prerequisites: 152 and Cl 200 , or certified K-12 teacher, or physics graduate status.
434-3 Instructional Strategies for Astronomy - [PS]
Pedagogical innovations, assessments, and inquiry-based activities will be developed for astronomy. Address Illinois Professional Teaching Earth and Space Science Standards \#3 and \#4. Prerequisites: 118 and Cl 200 , or certified K-12 teacher, or physics graduate status.

\section*{438-1 Physics and Astronomy Education Research}

Seminar - [PS] Seminar discussing current issues in physics and astronomy education research. May be repeated for a maximum of 4 hours, provided no topic is repeated.
439-1 to 3 Physics Project for Educators - [PS] Physics curriculum development project with the topic and educational level decided in consultation with the instructor. Not for physics undergraduate majors. Prerequisites: teaching certificate or instructor permission.
442-3 Topics in Medical Physics - [BPS, DNSM] Topics variable, may include: Medical imaging: Physics of \(x\)-ray, CT, PET MRI and ultrasound techniques, radiotherapy, nuclear medicine, radiation protection, electrophysiological measurements, biomechanics, mathematical modeling. Prerequisites: Grade of C or better in all of: PHYS 201, 240, 251, CHEM 241A or permission of the instructor.
444-3 Galaxies and Cosmology - [BPS, DNSM] Nature and evolution of galaxies. Extragalactic distance scales, expansion of Universe, active galaxies, quasars, introduction to cosmological models of the early Universe. Prerequisites: Grade of C or better in PHYS 201, 230, 251, 321, 343 or permission of the instructor.
450-3 Solid-State Physics - [BPS, DNSM] Crystal structures and binding; lattice vibrations; electronic states; band theory of solids; semiconductors; optical properties of solids; other selected topics. Prerequisites: Grade of C or better in both of: PHYS 304 and PHYS 323.
471-3 Laser Physics and Technology - [BPS, DNSM] 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. Prerequisites: Grade of C or better in all of: PHYS 201, PHYS 201L, PHYS 251, PHYS 410 or permission of instructor.

472-3 Photonics Laboratory - [BPS, DNSM, EL]A lecture/laboratory course in experimental techniques in photonics. May include: beam characterization, detectors, interferometers, optical fiber theory and applications, coupling techniques, fiber-optic communication.. Prerequisites: Grade of C or better in all of: PHYS 201, PHYS 201L, PHYS 251, PHYS 410 or permission of instructor.
480-2 to 3 Selected Topics in Physics - [PS] Classroom instruction in a topic of special interest not covered in other courses. May be repeated to a maximum of 6 hours, provided no topic is repeated. Prerequisite: consent of the instructor.
490-3 Senior Physics Honors - [DNSM, PS] Directed by student's Physics Honors Program advisor in independent study format on topics chosen jointly by student and advisor. Not for graduate credit. Prerequisites: 390, 405a or 406.
492-1 to 3 Senior Project in Biomedical Physics - With guidance, a senior investigatory or independent study project in bio- or biomedical physics. Prerequisites: Grade of C or better in all of PHYS 240, 251, 304 and permission of the instructor.
493-1 to 3 Senior Project in Photonics and Laser Physics - With guidance, a senior investigatory or independent study project in photonics and/or laser physics. Prerequisites: Grade of C or better in all of PHYS 201, 251 and 410 and permission of the instructor.
494-3 Methods of Teaching Physics in the Secondary
School - [PS] Current teaching and resource materials. Ways to teach different topics in physics, problem-solving techniques, and societal issues. Preparing for laboratory activities. Safety concerns. Not for Physics majors or graduate credit.
495-3 Physics Honors Thesis - [PS] Research project directed by student's advisor; results to be written in thesis form and presented at a departmental seminar. Prerequisites: Grade of C or better in all of PHYS 230, 251, 410 and permission of the instructor.
496-1 to 3 Senior Project in Astronomy/Astrophysics With guidance, a senior investigatory or independent study project in astronomy/astrophysics. Grade of C or better in each of: PHYS 201, 251, 318 and permission of the instructor.
497-2 to 3 Senior Project in Experimental Physics - [PS] With guidance, a senior project in experimental physics. May be repeated for a maximum of 6 hours. Prerequisite: Grade of C or better in each of: PHYS 201, 251, 318 and permission of the instructor.
498-2 to 3 Senior Project in Theoretical Project - [PS] With guidance, a senior project in theoretical physics. May be repeated to a maximum of 6 hours. Prerequisite: Grades of C or better in each of: PHYS 201, 251, 321 and permission of the instructor.
499a-3 Senior Assignment in Physics: Part I- [PS] Directed study toward completing the senior assignment. Includes a written proposal, data acquisition, and an oral presentation. Prerequisite: 30 credit hours of physics courses and consent of instructor.
499b-2 Senior Assignment in Physics: Part II- [PS] Directed study toward completing the senior assignment. Includes data acquisition and analysis, written report, poster presentation and oral presentation. May be repeated to a maximum of 4 hours. Prerequisite: credit for 499a and consent of instructor.

\section*{Political Science (POLS)}

111-3 Introduction to Political Science - [BSS, EGC, ISS, II] [AAI No. S5 903] Institutional, behavioral, ideological comparisons of major types of political systems and processes; approaches and systems.
112-3 American National Government and Politics [BSS, DSS] [IAI No. S5900] Principles and practices of American political systems, constitutions, governmental institutions, political parties, interest groups, elections. Public participation; resultant policies.
292-3 Legal Research, Analysis, and Writing - [BICS, DSS, EL] Instruction and practice in researching statutory law, case law, and legal commentary; analyzing research results; communicating conclusions through written legal memoranda and briefs.

300-3 Introduction to Political Analysis - [BSS, DSS] Survey of models and quantitative techniques for organizing and analyzing data about politics; emphasis on applications; use of appropriate computer programs. POLS majors only. Prerequisite: 112
310-1 to 4 Readings in Political Science - Individualized instruction through specialized program designed by instructor and student. Normal assignment 1,000 pages per credit hour; requirements determined prior to registration. For majors and minors only. Prerequisites: 111, 112, consent of instructor.
320-3 Introduction to Public Administration - [BSS, DSS] Processes and problems of managing government agencies, political context, policy impact, effects of bureaucratic organization; managing personnel and finances, evaluating effectiveness, controlling discretion. Prerequisite: 112 or consent of instructor.
340-3 The Presidency - [BSS, DSS] Presidential powers and responsibilities, political, legal, constitutional, administrative. Evolution of presidency, its relationships to Congress and Judiciary. Impact on political system. Prerequisite: 112 or consent of instructor.
341-3 The Congress and Legislation - [BSS, DSS] Legislative organization and processes: Constitutional responsibilities and political dynamics. Impact on political system. Prerequisite: 112 or consent of instructor.
342-3 Issues in American Public Policy - [BSS, DSS] Public policies in such areas as taxing and spending, civil rights, welfare, health education, environment; explanations for adoption; problems of implementation; evaluation of impact.
343-3 American State Governments - [BSS, DSS] Comparative survey, historic and cultural influences, role of parties, interest groups, legislature, governors, and courts; impact on provision of state services. Prerequisite: 112 or consent of instructor.
344-3 Urban Politics - [BSS, DSS] Examination of political systems in American cities over time, including the role of political machines, suburban sprawl, economic development, demographic change, poverty, and federalism. Prerequisite: POLS 112 or consent of instructor.
345-3 Parties and Interest Groups - [BSS, DSS]
Characteristics of party system and its components, its interrelationships with interest groups and their impact on the political system, recent changes. Prerequisite: 112 or consent of instructor.

346-3 Public Opinion - [BSS, DSS] Formation, transmission, maintenance of political attitudes and opinions;
role of political elites and mass media; implications and consequences for American political system. Prerequisite: 112 or consent of instructor.

350-3 Western European Political Systems - [BSS, DSS, EGC, II] Western European countries: historical development, regime types and institutional setups, electoral systems, political party systems, ideologies, state structure and political culture. Prerequisite: 111 or consent of instructor.
351-3 Eastern European Political Systems in Transition [BSS, DSS, EGC, II] Historical development, political culture, governmental processes, political participation, problems and prospects. Prerequisite: 111 or consent of instructor.

352-3 Politics of Development - [BSS, DSS] Examination of the factors leading to successful democratic transitions with a focus on less developed countries, including political structures, history, culture, behavior, and global impact. Prerequisite: 111 or consent of instructor.

354-3 Women and Cross-National Politics - [BSS, DSS,EUSC, IGR] Women as citizens and as political leaders in the areas of politics, labor, peace, war, and violence. Prerequisite: 111 or consent of instructor.
355-3 Political Systems of Latin America - [BSS, DSS, EGC, III Selected political systems: historical context, political culture, governmental processes, political participation; problems and prospects. Prerequisite: 111 or consent of instructor.
356-3 Political Systems of Asia - [BSS, DSS, EGC, II] Chinese, Japanese, and Indian political systems: historical context, political cultures, governmental processes, political participation; problems and prospects. Prerequisite: 111 or consent of the instructor.
370-3 Introduction to International Relations - [BSS, DSS, EGC, II] [IAI No. S5 904N] Past and contemporary nation-state system; foreign policy behavior and processes, power, national interests, war, international law, organizations, economy, global problems and prospects. Prerequisite: 111 or consent of instructor.
371-3 International Political Economy - [BSS, DSS] Examination of the interaction of economics and politics, focusing on the effect of international economic issues on politics between and within nations and societies. Prerequisite: 111 or consent of instructor.

385-3 Introduction to Political Theory - [BSS, DSS] Basic concepts of political theory (e.g. justice, liberty, equality); forms of political systems; ideas of major political theorists. Prerequisite: 111 or consent of instructor.
386-3 American Political Ideas and Their Origin - [BSS, DSS] Sources of contemporary political ideas; colonial, revolutionary, and constitution-building periods; era of democratization, industrialization, civil war and early twentieth century. Prerequisite: 111 or 112 or consent of instructor.
390-3 The Judicial System - [BSS, DSS] Development, organization, and operation of federal and state court systems. Roles, powers, limits of judges and courts, and other institutions with which they interact. Prerequisite: 112 or consent of instructor.

391-3 Philosophy of Law - [BHUM, DFAH] (same as PHIL 343) Philosophical discussion of legal problems and issues in contemporary society such as rights, justice, freedom, responsibility, and punishment.
392-3 Law and Society - (Same as CJ 348 and PHIL 348) Examines the nexus of culture, dispute management and law.

We will explore law as a social construct, focusing on law's everyday impact on citizen's lives.
400-3 Political Science Senior Assignment - Course will address broad theme and seminar will serve as vehicle for developing student understanding of core political science concepts. Required for majors in Political Science. Prerequisite: POLS 300 with a grade of C or better, satisfactory completion of 75 credit hours, and Political Science Major.
410-3 to 6 Legal Internship - Assignment as paralegal assistant to legal aid attorneys, public defenders, and prosecuting officers under supervision of professional legal officers. Ten hours per week for 3 credit hours. Not for graduate credit. Prerequisite: 390 or consent of instructor.
411-3 to 6 Internship in Government - Assignment as paraprofessional in legislative or administrative offices assisting, and under supervision of regular professional employees. Ten hours per week for 3 credit hours. Not for graduate credit. Prerequisites: senior standing, political science major.
429-1 to 3 Topics in Public Administration - [BSS, DSS] 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. Prerequisite: 320 or consent of instructor.
430-3 Review for Teacher Certification - Review of major concepts and processes necessary for teaching political science at the secondary education level. Prerequisites: open only to Political Science Teacher Certification (K-12) students with permission of instructor.
440-3 African American Politics-[BSS, DSS, EUSC, IGR] Examination of the politics of African Americans. Description and analysis of the effect of political officials and institutions on African Americans and vice versa. Prerequisite: 112 or consent of instructor.
441-3 Women \& Politics in America - [BSS, DSS, EUSC, IGR] (Same as WMST 441) Consideration of politics and power in gender roles, family, class, occupation, and research, women and the political system and women and public policy. Prerequisite: 112 or consent of instructor.
443-3 Politics of Poverty - [BSS, DSS, EUSC, IGR] This course examines the intersection of politics and poverty: political ideologies related to poverty, means of measuring poverty, poverty trends and demographics, and anti-poverty policies. Prerequisite: 112.
445-3 Voting and Elections - [BSS, DSS] Political-legal, sociological, psychological bases of voting behavior; theories of electoral outcomes and consequences. Prerequisite: 112 or consent of instructor.
449-1 to 3 Topics in American Politics - [BSS, DSS] 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. Prerequisite: 112 or consent of instructor.
459-1 to 3 Topics in Comparative Politics - [BSS, DSS, EGC, II] 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. Prerequisite: 111 or consent of instructor.
472-3 International Organizations - [BSS, DSS, EGC, III Past and present international organizations, origins, structure, decision-making processes, functioning of United Nations and its specialized agencies, problems and prospects. Prerequisite: 370 or consent of instructor.

473-3 United States Foreign Policy - [BSS, DSS, EGC, IIJ Formulation, implementation, content, general policy patterns, international, domestic sources, policy instruments, regional dimensions and implications. Prerequisite: 370 or consent of instructor.
479-1 to 3 Topics in International Relations - [BSS, DSS, EGC, II] 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. Prerequisite: 370 or consent of instructor.
484-3 Classical Political Theory - [BSS, DSS, EGC, IC] (Same as PHIL 440) Works of major political thinkers from ancient times to the Renaissance, including Plato, Aristotle, St. Augustine, St. Thomas, and Machiavelli. Prerequisite: junior standing.
485-3 Modern Political Theory - [BSS, DSS, EGC, IC] (Same as PHIL 441) Works of major political thinkers from the Renaissance to the present, including Hobbes, Locke, Rousseau, Hegel, Marx, Mill, and Nietzsche.
489-1 to 3 Topics in Political Theory - [BSS, DSS] Major issues in political theory or works of one major political thinker. Prerequisite: 385 or consent of instructor.
495-3 Constitutional Law: Powers of Government - [BSS, DSS] Analyzes Supreme Court decisions regarding judicial, legislative, and executive power and the relationship between states and federal government in range of policy areas. Prerequisite: 390 or consent of instructor.
496-3 Constitutional Law: Civil Rights and Civil Liberties - [BSS, DSS] 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. Prerequisite: 390 or consent of instructor.

497-3 Environmental Law - [BSS, DSS] Examines regulatory framework that has developed around the protection of various aspects of the environment over the past thirty years. Prerequisite: 111 or consent of instructor.
498-3 Legal Theory - [DFAH, DSS, SS] (same as PHIL 498) 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. Not for graduate credit. Prerequisite: 390 or PHIL 111 .
499-3 Topics in Public Law - [BSS, DSS] 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. Prerequisite: 390 or consent of instructor.

\section*{Production (PROD)}

315-3 Operations Management - Study of manufacturing and service operations management. Covers process and product design, quality management, planning/control of materials and capacity, and project management. Prerequisite: MS 251, accounting, CMIS, economics or finance, business administration majors.
490-1 to 6 Independent Study in Operations Management - Topical areas in greater depth than regularly titled courses permit. Individual or small group readings or projects. May be repeated by permission to a maximum of 6 hours. Prerequisites: consent of instructor and department chairperson.

\section*{Psychology (PSYC)}

111-3 Foundations of Psychology - [BSS, ISS] [|AI No. S6 900] History; psychological methods and techniques; biological foundations of behavior; learning; motivation; development; personality; social; psychopathology.
200-3 Careers in Psychology - [SS] To provide students with information that will help them pursue a career in psychology by incorporating such activities as lectures and small group exercises. Prerequisite: 111 with a \(C\) or better and declared major in Psychology.
201-3 Child Psychology - [BSS, DSS] [AAI No. S6 903] Biological and psychological development of child from birth through puberty. Prerequisite: 111.
203-3 Adolescent Psychology - [BSS, DSS] Biological and psychological development of adolescent; relationship between childhood development and adolescent behavior. Prerequisite: 111.
204-3 Adult Development and Aging - [BSS, DSS] [IAI No. S6 905] Examination of psychological and psychosocial factors in development throughout adulthood; myths and realities of aging. Prerequisite: 111 .
206-3 Social Psychology - [BSS, DSS] [IAI No. S8 900] Individual behavior in social situations; social perception; attitude formation and change; social influence; group processes; prejudice and discrimination; aggression; altruism. Prerequisite: 111.
208-3 Cognitive Psychology - [BSS, DSS] A broad survey of cognitive psychology. Topics include attention, perception, memory, language, reasoning and decision making.
Prerequisite: 111
220-3 Research Design and Statistics I-[SS] Methods for designing psychological studies and the statistics used to describe and interpret the data. Focus on non-experimental method. Prerequisite: 111 with a C or better and declared major in Psychology.
221-3 Research Design and Statistics II - [SS] Methods for designing psychological studies and the statistics used to describe and interpret the data. Focus on non-experimental method. Prerequisites: 111 and 220 with a C or better and declared major in Psychology.
303-3 Health Psychology - [BSS, DSS, EH] This course provides an introduction to the field of health psychology, which is concerned with the roles of behavioral and psychosocial factors on health and disease. Prerequisite: 111 with a grade of C or better, 314 with a grade of C or better, or BIOL 140, or BIOL 240A and 240B.
305-3 Psychology of Gender - [BSS, DSS, EUSC, IGR] (Same as WMST 305.) Psychological and cultural history of gender; changing sex roles; socialization; sexuality; issues related to mental health, stereotyping, cognition. Prerequisite: 111.
311-3 Learning and Memory - [SS] Survey in topics related to conditioning, memory, and their integration. Students encouraged to have taken PSYC 208, 220 and 221. Prerequisite: 111
312-3 Sensation and Perception - [SS] Topics include the sensation and perception of visual, auditory, touch, smell, and taste information. Discussion of the biological and cognitive factors related to these senses. Prerequisites: PSYC 111, 208, 220 and 221 with minimum grade of C .

313-3 Motivation - [SS] Biological, social, personality aspects of motivation in seminar and student-conducted experiments. Prerequisite: 220 and 221.
314-3 Physiological Psychology - [BSS, DSS] Biological foundations of behavior; structure and function of brain related to personality; behavior; health. Prerequisite: 111 or consent of instructor.

\section*{320-3 Introduction to Industrial/Organizational}

Psychology - [BSS, DSS] Psychological principles and methods of analysis applied to problems in contemporary work settings. Prerequisite: 111.
340-3 Theories of Personality - [BSS, DSS] Review and critical evaluation of major theories and supporting evidence. Prerequisite: 111.

365-3 Group Dynamics and Individual Behavior - [BSS, DSS] Small group interaction, including topics of group structure and function; group problem-solving, leadership, etc. Prerequisite: 111.
388-0 Psychology Internship - Psychology-related work in a business, government or not-for-profit setting under the supervision of a field supervisor. Prerequisites: consent of instructor; GPA above 2.5.
389-0 Psychology Co-Op - [COOP] Psychology-related work in a business, government or not-for-profit setting under the supervision of an employer. Prerequisites: consent of instructor; GPA above 2.5.

407-3 Multicultural Issues in Psychology - [EUSC, IGR, SS] Students will develop a critical framework for looking at the concept of "culture" in contemporary America. Students will explore how culture impacts psychological services. Prerequisite: 111.
409-3 History and Systems of Psychology - [BSS] Important antecedents of contemporary scientific psychology; issues, conceptual development, major schools and systems. Prerequisites: junior or senior standing, 111, or consent of the instructor.
420-3 Applied Behavior Analysis - [SS] Learning principles; evaluation methods; techniques of managing and modifying human behavior, based upon operant and respondent conditioning. Prerequisite: 111.

421-3 Psychological Tests and Measurements - [SS] Principles of psychological measurement, test construction and evaluation; problems in assessment and prediction. Prerequisite: 220.
431-3 Psychopathology - [BSS, DSS] Overview of psychological disorders like those described in the most recent edition of the DSM. Prerequisite: 111 , minimum grade C or better.

\section*{442-3 Adlerian Psychology: Theory and Application -} [BSS, DSS] In-depth summary of theory and application of Alfred Adler and Rudolf Dreikurs, applied to mental health and human relations in family, school, clinic, and workplace. Prerequisite: 111 and junior, senior, or graduate standing.
450-3 Clinical Psychology - [SS] Introduces concepts in clinical psychology such as psychotherapy, assessment, current controversies, and ethical and cultural issues. Not for graduate credit. Prerequisite: PSYC 111 or instructor permission.
461-3 Advanced Social Psychology - [SS] In-depth readings course on current issues in social psychology. May include social cognition; attitudes; attraction; social influence; aggression; and other issues. Prerequisite: 206 or consent of instructor.

473-3 Personnel Psychology - [SS] Psychological principles and techniques used in job selection, placement, training, employee evaluation. Prerequisite: 320 or MGMT 341.
474-3 Organizational Psychology - [SS] Relationship between organizational functioning and job satisfaction; motivation; performance; psychological climate in work setting. Prerequisite: 320 or consent of instructor.
478-3 Psychology of Stress and Stress Management - [BSS, DSS] Physiological, psychological, social, and organizational factors involving stress, are covered, as are theories and models of stress and stress management. Prerequisite: 111 or equivalent, minimum grade of C .

487-3 Psychology of Aging - [SS] Biological, psychological and sociocultural factors in development and aging; age changes in learning, memory, intelligence, personality; special issues such as retirement, Alzheimer's disease, elder abuse. Prerequisite: 204 or graduate standing.
491-1 to 6 Research in Psychology - [SS] Research under faculty supervision. Only 9 hours of 491, 492, 493, and 496 (no more than 6 hours in any one course) may be applied toward major in psychology, 3 hours toward minor in psychology. Prerequisites: consent of instructor and chairperson; must have completed at least 18 hours of psychology; GPA above 2.5.
492-1 to 6 Readings in Psychology - [SS] Readings under faculty supervision. Only 9 hours of 491, 492, 493, and 496 (no more than 6 hours in any one course) may be applied toward major in psychology, 3 hours toward minor in psychology. Not for graduate credit. Prerequisites: consent of instructor and chairperson; must have completed at least 18 hours of psychology; GPA above 2.5.
493-1 to 6 Field Study in Psychology — [SS] Supervised experiences in clinics, agencies and other professional settings. Only 9 hours of 491, 492, 493, and 496 (no more than 6 hours in any one course) may be applied toward major in psychology, 3 hours toward minor in psychology. Not for graduate credit. Prerequisites: consent of instructor and chairperson; must have completed at least 18 hours of psychology; GPA above 2.5.
494-3 Capstone Seminar in Psychology — Students will integrate critical thinking, communication and research skills by examining significant issues in various areas of psychology, culminating in a group research project. Prerequisites: 221 with a grade of C or better and senior standing and declared Psychology major.
495-1 to 3 Selected Topics in Psychology - [SS] Offered occasionally when needed. May be repeated to a maximum of 9 hours so long as no topic is repeated. Prerequisite: consent of instructor.
496-1 to 3 Undergraduate Teaching Assistantship in Psychology - [SS] Provides experience/exposure to psychology teaching at the undergraduate level under supervision of the instructor of record for students who have successfully completed the given course. Only 9 hours of 491, 492,493 , and 496 (no more than 6 hours in any one course) may be applied toward major in psychology. Prerequisite: consent of instructor and major standing.

\section*{Public Administration and Policy Analysis (PAPA)}

410-1 Introduction to Microcomputing - Introduction to personal computers and development of skills in using word processing and database applications common to the public sector.

411-1 Spreadsheet Applications - Development of skills in spreadsheet construction and public sector applications.
412-1 Introduction to SPSS—Skills in using SPSS-PC: importing files; data entry; data analysis; exporting files. Prerequisite: concurrent enrollment in 420 and consent of instructor.

420-3 Quantitative Analysis - Research design; descriptive statistics; hypothesis testing; nonparametric statistics; analysis of variance; correlation; regression. Prerequisite: concurrent enrollment in 412 and consent of instructor.

499-1 to 3 Seminar in Public Administration - [DSS] 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.

\section*{Quantitative Reasoning (QR)}

101-3 Quantitative Reasoning- [FQR] Focuses on mathematical reasoning and real-life problems. Including: management science, coding, social choice and decision making, size and shape, and modeling.

\section*{Reasoning and Argumentation (RA)}

101-3 Reasoning and Argumentation - [FRA, SKLG] Students will learn to analyze, critically evaluate, and construct arguments. Topics include organizing information, detecting fallacies, analyzing meaning, and using effective methods of argumentation.

\section*{Russian (RUSS)}

101-4 Elementary Russian I — [FL, SKFL] Listening, speaking, reading, and writing within context of Russian culture. Lab included.

102-4 Elementary Russian II - [EGC, IC, FL, SKFL] Continuation of 101. Lab included. Prerequisite: 101.
104-8 Elementary Russian - [EGC, IC, FL, SKFL] Intensive instruction in listening, speaking, reading, and writing within context of Russian culture. Equivalent to 101 and 102. Must enroll for all 8 credit hours. Lab included. Check with department chairperson to determine if course will be offered.

201-4 Intermediate Russian I — [DFAH, FL, SKFL] Continued practice in listening, speaking, reading, and writing. Grammar review. Cultural and literary readings, compositions. Lab included. Prerequisite: 102 or consent of instructor.
202-4 Intermediate Russian II - [DFAH, FL, SKFL] [IAI No. H1 900] Continuation of 201. Lab included. Prerequisite: 201 or consent of instructor.

220-3 Intermediate Russian Conversation - [DFAH] Practice in intermediate-level conversation. Focus on pronunciation and fluency. Prerequisite: 102 or equivalent.
499-3 Readings in Russian - [DFAH] Selected areas of language, literature, and culture. Individual work or small groups supervised by Russian faculty. Not for graduate credit. Prerequisites: 202 and consent of instructor.

\section*{Science (SCI)}

241a-3 Foundations of Science - [BLS,EL] General background in science. Laboratory emphasis on process skills, hands-on activities, and projects suitable for children in grades K-8. (a) chemistry, biology, and design projects. Prerequisites:
(a) CIED 100 with a grade of C or better, or Cl 200 , or SPE 200, or SPE 100. (previous or concurrent enrollment).

241b-3 Foundations of Science - [BPS, EL] General background in science. Laboratory emphasis on process skills, hands-on activities, and projects suitable for children in grades K-8. (b) physics, earth science, and design projects. Prerequisites: CIED 100 or SPE 100 with a grade of C or better. (previous or concurrent enrollment).
401-2 to 4 Selected Topics in Physics - 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. Prerequisite: consent of instructor.

405-2 top 4 Selected Techniques in Physics - 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. Prerequisite: two years of college science and mathematics.

411-2 to 4 Selected Topics in Chemistry - 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. Prerequisite: two years of college science and mathematics.

414-1 to 3 History of Chemistry - Topics in history of chemistry. May be repeated to a maximum of 6 hours so long as no topic is repeated. Prerequisite: consent of instructor.

415-2 to 4 Selected Techniques in Chemistry - 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. Prerequisite: two years of college science and mathematics.
421-2 to 4 Selected Topics in Biology - 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. Prerequisites: two years of college science and mathematics.
425-2 to 4 Selected Techniques in Biology - 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. Prerequisite: consent of instructor.
431-2 to 4 Selected Topics in Earth and Environmental Science - 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. Prerequisite: consent of instructor.
435-2 to 4 Selected Techniques in Earth and Environmental Science - Modern experiments, demonstrations, and equipment; advances in technology; laboratory management and safety. Primarily for teachers of science. Prerequisites: two years of college science and mathematics.
442-1 to 4 Special Topics in Teaching Science in Elementary School - 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.
Prerequisite: two years of college science and mathematics.

451-3 Integrated Science - Laboratory-based integrated science course. Interactions of the sciences: earth and space, physical, life sciences and mathematics. Research project, paper, and presentation. Prerequisites: completed 24 semester hours of science credit; 2.5 or higher GPA.

\section*{452-1 to 4 Special Topics in Teaching Science in the} Secondary School - 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. Prerequisite: consent of instructor.
462-1 to 4 Special Topics in Teaching Science in College - 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. Prerequisite: two years of college science and mathematics.
489-1 to 3 Independent Study in Science Education 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. Prerequisite: consent of instructor.

\section*{Social Work (SOCW)}

200-4 Foundations of Social Work I- [BSS, DSS] Introduction to the profession by examining the skills, knowledge and perspectives in social work. Emphasis on values, ethics, and populations at risk. Includes 40 hours at a social service agency.

201-3 Foundations of Social Work II-[DSS] Examination of social welfare settings including their functions, clientele, and methods of service provision at all client systems levels. Prerequisite: consent of program director.
211-3 Micro Skills of Counseling - Basic counseling skills such as empathy, paraphrasing, and focusing will be taught, with one lecture and one lab session per week. Prerequisite: consent of program director.
301-3 Introduction to Social Welfare Policy - Analysis of problems faced by individuals, families, groups, and communities; relationships between definitions of problems and society's responses to them, especially policy. Prerequisites: 211 with a minimum grade of B, ECON 111, HIST 201, POLS 112.

302-3 Human Behavior in the Social Environment IPerspectives on human functioning from a range of theories with social work application to individuals, families and groups; emphasis on developmental perspectives and human diversity. Prerequisites: 211 with a minimum grade of B, PSYC 111, BIOL 111.

303-3 Human Behavior in the Social Environment IIPerspectives on human functioning from a range of theories with social work application to neighborhoods, organizations and communities; emphasis on developmental perspectives and human diversity. Prerequisites: 211 with a minimum grade of B, ANTH 111.

315-3 Social Work Practice with Individuals and Families
- Problem solving model for generalist social work practice. Applications for working with individuals and families. Includes weekly lab. Prerequisites: 211 with minimum grades of B.
316-3 Social Work Group Practice - Study of generalist social work practice with groups; survey of selected group intervention models. Includes weekly lab. Prerequisite: 211 with a minimum grade of \(B\).

357-3 Juvenile Delinquency - [DSS] Reviews the causes, prevention, treatment and laws and policies related to juvenile delinquency and the structure of the juvenile justice system. Not for graduate credit.
370-3 Child Welfare - [DSS] Examination of child welfare including models of intervention, types of abuse and neglect, functions of case management and issues of cultural diversity. Prerequisite: 200, junior or senior standing.
386-3 Health Care Issues in Social Work - [DSS] Examines contemporary health issues such as hypertension, diabetes, childhood obesity, with emphasis on HIV/AIDS and how these diseases relate to populations at risk. Not for graduate credit. Prerequisites: BIOL 111; junior or senior standing.
388-3 Chemical Dependency - [DSS] Examines the bio-psycho-social perspective of chemical dependency; focusing on drug availability, effects, assessment, interventions, and public policies. Not for graduate credit. Prerequisite: junior or senior standing.
390-3 Diversity and Issues of Social and Economic Justice - [BSS, DSS, EUSC, IGR] Examines backgrounds and needs of diverse populations including persons who are at-risk. Forms of oppression, social and economic justice issues, and values and ethics. Not for graduate credit. Prerequisite: junior or senior standing.
395-1 to 6 Independent Study in Social Work - To be arranged with member of social work faculty. Open to social work majors only. Prerequisites: admission to the major, consent of instructor and program director/coordinator.
400-3 Social Work Practice with Organizations and Communities - Applications of generalist practice principles and selected practice models to social work with organizations and communities. Not for graduate credit. Prerequisites: admission to major.
401-3 Social Welfare Policy Analysis - Selected models of policy analysis with applications to social welfare issues. Special emphasis on legislative processes and lobbying for social change. Not for graduate credit. Prerequisites: admission to major.
454-3 Disability in Society - Overview of issues and services pertaining to disability in American society including biological, psychological, familial and social considerations. Not for graduate credit.
480-3 Research Methods in Social Work - Knowledge and application of qualitative and quantitative research and statistics for social work practice. Includes discussion of ethical issues and practice evaluation. Not for graduate credit. Prerequisite: 200, STAT 107 with grades of \(C\) or better, Admission to major. To be taken concurrently with 482.
481-3 Statistics for Social Work - Understanding and use of descriptive statistics and hypothesis testing for social work practice. Not for graduate credit. Prerequisite: 480 with a minimum grade of C. Corequisite: Must be taken concurrently with 483.

482-4 Field Instruction I — With 483, two consecutive semesters of supervised practicum consisting of a minimum of 400 hours in an approved social work setting. Weekly seminars. Social Work majors only. Not for graduate credit. Prerequisites: consent of director of practica, 2.5 GPA. Corequisite: concurrent enrollment in 480.
483-4 Field Instruction II - Continuation of 482. Not for graduate credit. Prerequisites: 482 with a minimum grade of C. Corequisite: concurrent enrollment in 481.

487-3 Involuntary Clients - [DSS] Examines factors and characteristics that lead to resistance in a variety of fields of practice; examines issues of social control and practice approaches. Not for graduate credit. Prerequisite: junior or senior standing.
488-3 Social Work Practice Models - [DSS] Survey of intervention models for social work practice with individuals, families and groups. Not for graduate credit. Prerequisite: 315 .
491-3 Mental Health - [DSS] Exploration of mental health issues. Specific attention to the use of the DSM, diagnosis of mental illnesses and values and ethics in social work practice. Not for graduate credit. Prerequisite: junior or senior standing.
492-3 Domestic Violence - [DSS] Overview of domestic violence; effects of violence on children, elder abuse and Illinois laws affecting domestic violence. Not for graduate credit.
495-3 Special Topics in Social Work - [DSS] Topics not included in regular course offerings. Topic and prerequisites specified in semester course schedule. May be repeated to a maximum of 9 hours with different topics. Not for graduate credit. Prerequisite: junior or senior standing.

\section*{Sociology (SOC)}

111-3 Introduction to Sociology - [BSS, EUSC, ISS] [IAI No. \(\mathrm{S7} 900\) ] Changes, causes and consequences of group life. Scientific and humanistic study of social processes and institutions, including change, control, religion, education, inequality, health, family.
272-3 Criminology - (Same as CJ 272) [BSS, DSS] [IAI Course No. CRJ 912] An introduction to theory and research on lawmaking, lawbreaking and the reactions to crime and criminality. Prerequisite: 111 and sophomore or higher standing.
300-3 Social Problems - [BSS, DSS, EUSC] [IAI No. S7 901] Extent and causes of a number of current American social problems; how social conditions become problems. Some attention to methods of researching problems.
301-3 Survey of Theory - [BSS, DSS] Major classical theorists including Durkheim, Marx, and Weber, and contemporary schools of thought including functionalism; conflict; exchange; symbolic interaction.
302-3 Social Research Methods - [BSS, DSS]
Fundamentals of measurement, research design, and logic of determining cause-effect relationships. Includes experimental, survey, archival, field research methods. Interrelationships between theory and research. Prerequisite: 301 .
303-3 Statistics with Computer Applications - [DSS, SS] (CJ 303 may be substituted.) Survey of key statistical concepts, their application and interpretation. Using a computer to calculate and graphically display statistics. Creating and manipulating data sets. Hypothesis testing. Prerequisite: 301 .
304-3 Race and Ethnic Relations - [BSS, DSS, EUSC, IGR] [AAI No. S7 903D] Racial and cultural interaction and conflict; causes of prejudice and discrimination; status and participation of minority groups; national and international aspects of majority-minority relations.
308-3 Women, Gender and Society - [BSS, DSS, EUSC, IGR] (Same as WMST 308) Sociological and feminist perspectives on women in American society with an emphasis on institutions that create, maintain, and reproduce gender and gender inequality.

309-3 Social Inequality - [BSS, DSS, EUSC] Extent and causes of social inequality. Attention to consequences of the sustained existence of such inequalities in our everyday lives.
310-3 The Sociological Study of Sexualities and Society - [BSS, DSS] (Same as WMST 310) The sociological studies of sexualities with an emphasis on how sexualities are shaped by and operate within various institutions including medicine, economy, family, and education.
325-3 Sociology of Community Action - [SS] Sociological contexts of participation in social service and activist endeavors; focus on strategies, tactics, organization, and field-work methodology; in preparation for Sociology 326. Prerequisite: sociology major with 9 credit hours of sociology or consent of instructor.
326-3 Internship in Community Action - [SS] Supervised placement in community service or activist setting; acquisition of experience and practical skills, preparing students for continued professional or voluntary community involvement. Prerequisites: sociology major, 325 and consent of instructor.
335-3 Urban Sociology - [BSS, DSS, EUSC, IGR] Rise, development, structure, culture, planning, and problems in early and modern cities. How sociologists study cities; metropolitan areas. Some attention to urban social segregation.
338-3 Industry and Society - [BSS, DSS] Development, changing nature, and social impact of industrial organization; transition from mass production to flexible systems; employee participation and labor-management relations.
390-3 Sociological Perspectives - [BSS, DSS] Topics not included in regular course offerings. May be repeated or taken in multiple 3-credit sections without limit on the total number of credit hours taken, provided no topic is repeated.
391-3 Marriage and Family - [BSS, DSS] [IAI No. S7 902] (Same as WMST 391) Marriage and the family in U.S. society; behavioral change including gender roles, dating and mate selection, love and intimacy, alternative family forms, communication/conflict, divorce/remarriage.
394-3 Sociology of the Black Family - [DSS, EUSC, IGR, SS] (Same as WMST 394) The black family in U.S. society. Historical and sociological study of contemporary black family forms; gender roles; love; intimacy and mate selection; parenting; and well-being of children.

396-1 to 6 Readings in Sociology - [SS] Supervised reading, projects, and field experience in selected areas. May be repeated for up to 6 hours provided no topic is repeated. Prerequisite: consent of instructor and chairperson.
421-3 Individual and Society - [BSS, DSS] Integration of individual and society; role structure and orientation to society; habits, communication, channels of meaning, emergence, presentation and defense of self.
422-3 White-Collar Crime - [BSS, DSS] (Same as CJ 422)
An examination of the nature, extent, and distribution of whitecollar crime as well as its causes, correlates, and control. Prerequisites: SOC/CJ 272 or consent of instructor.
431-3 Employment and Workplace Change - [BSS,
DSS] 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.
433-3 Internship in Employment Relations - [SS] Supervised placement in actual employment setting.

Acquisition of hands-on experience and practical skills, providing head start in meeting career objectives. Not for graduate credit. Prerequisites: \(111,301,302,303,338\) or consent of instructor.
440-3 Sociology of Popular Culture - [BSS] Relevant theories, methodologies, and works of original research. Students apply knowledge gained by analyzing examples from contemporary popular culture.

\section*{444-3 Gender, Ethnicity, and Class in the Workplace -} [BSS, DSS, EUSC, IGR] (Same as WMST 444) Traces the evolution of work for women of different races and classes, and studies what issues women now face in the public and private spheres.
470-3 Sociology of Deviance - [BSS, DSS] (Same as CJ 470) Behaviors such as prostitution, drug use, murder, racism, sexual variances, rape and insanity examined theoretically and empirically.
472-3 Explaining Crime - [BSS, DSS] (Same as CJ 472) Examination of the relationship between classical and contemporary criminological theory, research, and policy. Prerequisite: SOC/CJ 272 or consent of instructor.
474-3 Victims and Society - [BSS, DSS] Sociological analysis of war, crime, inequality, racism, sexism and other victim-generating conditions and processes; a non-lecture, active-learning course. Prerequisites: 111 and senior standing, or consent of instructor.

490-3 Special Topics in Sociology - [DSS, SS] Topics not included in regular course offerings. May be repeated once to a maximum of 6 hours provided no topic is repeated.

493-3 Sociological Research Workshop - [SS] In Sociological Research Workshop, general sociology students will learn how to read and write about the scholarly work of others, develop a research question, write a literature review and develop appropriate theory and methods related to their own research question. Prerequisites: sociology seniors, 111, 301, 302, C or better, and three SOC electives, D or better.
495-3 Senior Assignment Seminar - Conduct a social research project based on proposal developed in 301, 302 and 303. May use survey, participant observation, evaluation/ assessment, or other quantitative or qualitative methods. Not for graduate credit. Prerequisites: 111, 301, 302, 303, 493 with minimum grade of C .

\section*{Spanish (SPAN)}

101-4 Elementary Spanish I — [BICS, FL, SKFL] Listening, speaking, reading, and writing. Culture of Spanish-speaking countries. Lab included.

102-4 Elementary Spanish II - [BICS, EGC, IC, FL, SKFL] Continuation of 101. Lab included. Prerequisite: 101 or placement testing.
104-8 Elementary Spanish - [EGC, IC, FL, SKFL] Intensive instruction in listening, speaking, reading, and writing. Culture of Spanish-speaking countries. Lab included. Equivalent to 101 and 102. Must enroll for all 8 hours credit. Check with department chairperson to determine whether course will be offered.
201-4 Intermediate Spanish I - [BICS, DFAH, FL, SKFL] Continued practice in listening, speaking, reading, and writing. Grammar review. Cultural and literary readings; compositions. Lab included. Prerequisite: 102 or placement testing.

202-4 Intermediate Spanish II - [BICS, DFAH, FL, SKFL] [IAI No. H1 900] Continuation of 201. Lab included. Prerequisite: 201 or placement testing.

301-4 Advanced Spanish — [BICS, DFAH, FL, SKFL] Indepth grammar review. Composition and conversation. Lab included. Prerequisite: 202 or consent of instructor.

302-4 Advanced Spanish — [BICS, DFAH, FL, SKFL] Selected topics in grammar, readings, and composition. Lab included. Prerequisite: 202 or consent of instructor.

304-3 Interpretation - [BICS, DFAH, HUM] Oral translation of selected passages, alternating between English and Spanish; development of precision and clarity in both languages. Prerequisite: 202 or consent of instructor.
305-4 Computer-Assisted Written Translation - [DFAH, HUM] Computerized automatic translation: English/ Spanish and Spanish/English. Lab included. Prerequisites: 202 or consent of instructor, some familiarity with word processing.
306-3 Contemporary Spanish Professional Readings [BICS, DFAH, HUM] Selections from publications related to professions and issues. Prerequisite: 202 or consent of instructor.

307-3 Business Spanish — [BICS, DFAH, EGC, HUM] Oral and written business expression; specialized terminology and idioms. Prerequisite: 202 or consent of instructor.

308-4 Spanish Linguistics - [BICS, DFAH, HUM] The linguistics features of the Spanish language system; including phonology, morphology, pragmatics, sociolinguistics and comparisons among varieties of Spanish and other languages. Required for majors seeking certification to teach Spanish. Prerequisite: 301 or consent of instructor.
311-3 Contemporary Spain - [BHUM, DFAH, EGC, IC] Analysis of significant aspects of Spanish culture to improve intercultural understanding and develop language skills. Prerequisite: 202 or consent of instructor.
312-3 Contemporary Spanish America - [BHUM, DFAH, EGC, IC] Analysis of significant aspects of Spanish-American culture to improve intercultural understanding and develop language skills. Prerequisite: 202 or consent of instructor.
320-3 Advanced Spanish Conversation - [BICS, DFAH, EGC, HUM, IC] Practice in advanced-level conversation. Focus on pronunciation and fluency. Prerequisite: 202, placement testing, or instructor permission.
351-3 Survey of Spanish Literature: Peninsular - [BHUM, DFAH, EGC, IC] Representative prose, poetry, drama. Prerequisite: 202 or consent of instructor.
352-3 Survey of Spanish-American Literature: Colonial Period until the Present - [BHUM, DFAH, EGC, IC] Representative prose, poetry, drama. Prerequisite: 202 or consent of instructor.

\section*{353-3 Survey of Drama in the Spanish Language -} [BHUM, DFAH, EGC] Selected readings, literary and cultural background. Prerequisite: 202 or consent of instructor.
392-3 Spanish in the Community - [BICS, EGC, EUSC, IC, IGR, SKFL, SKOC] Spanish service-learning class in which students are exposed to and volunteer in the Hispanic communities of Illinois and Missouri. Prerequisite: 301 with a grade of A and/or instructor's consent.
400-3 Senior Essay in Spanish — Supervised research and preparation of an extensive scholarly paper in Spanish. Not for

\section*{Spanish (SPAN)}
graduate credit. Usually taken after completion of all major courses. Prerequisite: senior standing or consent of instructor.
412a-3 U.S.A. Hispanics - [BHUM, DFAH, EUSC] Hispanic cultures in the USA. Study of the unique contributions of Mexican Americans through their language, literature and the arts. Prerequisite: 301 or 302 or consent of instructor.

412b- 3 U.S.A. Hispanics - [DFAH, HUM] Hispanic cultures in the USA. Study of the unique contributions of Cuban Americans and Puerto Rican Americans through their language, literature and the arts. Prerequisite: 301 or 302 or consent of instructor.

451-3 Studies in Spanish Literature: Beginnings through 17th Century - [BHUM, DFAH, EGC, IC] Literary analysis of prose, poetry, and drama, 11th through 17th centuries. Not for graduate credit. Prerequisite: 301 or 302 or consent of instructor.
452-3 Studies in Literature in the Spanish Language: 17th through 20th Centuries - [BHUM, DFAH, EGC, IC] Continuation of 451. Not for graduate credit. Prerequisite: 301 or 302 or consent of instructor.

453-3 Seminar in Hispanic Literature - [BHUM, DFAH, EGC, IC] Critical and analytical study of masterpieces. Not for graduate credit. Prerequisite: 301 or 302 or consent of instructor.

454-3 to 6 Seminar - [BHUM, DFAH] 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. Prerequisite: 301 or 302 or consent of instructor.
457-3 Don Quixote - [BHUM, DFAH, EGC, IC] Critical and analytical study of Cervantes' masterpiece. Prerequisite: 301 or 302 or consent of instructor.

461-3 Spanish Stylistics - [DFAH, HUM] Writing style: application of stylistics to development of skill in written expression. Advanced work in principles of grammar and composition. Prerequisite: 301 or 302 or consent of instructor.
471-3 Spanish-American Literature: Short Stories and Novel - [BHUM, DFAH, EGC, IC] Representative works of last four decades of 20th century. Not for graduate credit. Prerequisite: 301 or 302 or consent of instructor.

491-3 to 6 Cultural and Language Workshop - Spanish [DFAH, EGC, HUM, IC] Comparative or contrastive linguistics, advanced methodology and techniques. In-depth study of foreign cultures, travel-study abroad. Supervised projects in Spanish. May be repeated to a maximum of 6 hours provided that no topic is repeated. Prerequisite: Advanced or graduate standing.
492-3 Service Learning for the Advanced Student - [DFAH, EGC, HUM, IC, IGR] Study abroad in a servicelearning context. Hands-on field study with emphasis on target culture and language, oral and written communication and supervised individual projects. Prerequisite: 301 or permission of the instructor.
499-3 Readings in Spanish - [DFAH, HUM] Selected areas of language, literature, and culture. Individual work or small groups supervised by Spanish faculty. Prerequisites: senior standing and consent of instructor.

\section*{Special Education (SPE)}

100-3 Introduction to People with Disabilities in Society and School - [EUSC, IGR] Surveys historical, philosophical and legal foundations of educating people with disabilities; characteristics and needs of individuals with disabilities; roles and responsibilities of professionals.

\section*{Special Education (SPE)}

290-3 Language Development and Acquisition for Educators - Developmental milestones and theory of communication development in both typically developing children and in children with disabilities. Identification and characteristics of developmental and acquired communication disorders. Prerequisites: SPE 100 or SPE 400 or concurrent enrollment or consent of instructor.

400-3 The Exceptional Child - Psychology, identification, and methods of teaching individuals with exceptionalities, including individuals with learning disabilities. Prerequisites: Admission to teacher education program or instructor approval.
401-1 Field Practicum I in Special Education — Supervised early practicum allows candidates to observe and participate in a special education classroom. Prerequisites: SPE 100 with a grade of B or better and admission to the Special Education program. Must be taken concurrently with SPE 405, 430, and 450.
402-2 Field Practicum II in Special Education Supervised practicum allows candidates to participate in special education classrooms containing a range of disabilities. Prerequisites: admission to the Special Education program and SPE 405,430 , and 450 with grades of C or better. Must be taken concurrently with SPE 416, 417a, and 471.

405-3 Foundations of Special Education - Introduction to problems, characteristics and issues that impact the development of persons with disabilities. Prerequisites: SPE 100 with a grade of \(B\) or better and admission to the Special Education program. Must be taken concurrently with SPE 401, 430 and 450.

\section*{412-3 Assessment for Instructional Decision Making in} Special Education - Emphasizes processes and procedures for obtaining, interpreting, and analyzing information to facilitate effective educational decision-making. Prerequisite: SPE 402, \(416,417 \mathrm{a}, 470\) and 471 with grades of C or better. Must be taken concurrently with 417b, 418, 421 and 422.
415-3 Instructional and Assistive Technology — Overview of use of instructional and assistive technology. Course will review hardware, software, Internet technologies and application of assistive technology. Not for graduate credit. Prerequisites: SPE 100 with a grade of B or better and admission to the Special Education program.
416-3 Functional Curriculum Methods - Overview of functional curriculum methods for students with severe/ multiple disabilities. Not for graduate credit. Prerequisites: SPE 401, 405,430 , and 450 with grades of \(C\) or better. Must be taken concurrently with 402, 417a and 471.
417a-3 Introductory Reading and Language Arts Methods in Special Education - Candidates will learn and apply foundational theory and methods for teaching reading and language arts to students with disabilities. Prerequisites: SPE \(401,405,430\) and 450 with grades of \(C\) or better; Must be taken concurrently with 402, 416 and 471.
417b-3 Advanced Reading and Language Arts Methods in Special Education - Candidates will learn and apply advanced methods of assessment and instruction in reading and language arts for teaching students with disabilities. Prerequisites: SPE 402, 415, 416, 417a, 470 and 471 and EPFR 315 and 320 with grades of \(C\) or better. Must be taken concurrently with SPE 412, 418, 421 and 422.
418-3 Field Practicum III in Special EducationSupervised practicum requiring the application of knowledge and skills in teaching students with disabilities. Requires 180 hours in the field. Not for graduate credit. Prerequisites: SPE

402, 416, 417a and 471 with grades of \(C\) or better. Must be taken concurrently with SPE 412, 417b, 418 and 422.
421-3 Mathematics Methods in Special EducationPreparation of preservice teachers with knowledge and skill in the use of effective teaching techniques in mathematics for persons with disabilities. Not for graduate credit. Prerequisites: SPE 402, 416, 417a, 471 with grades of C or better. Must be taken concurrently with SPE 412, 417b, 418 and 422 .

422-3 Adaptations and Accommodations in Content Area Instruction - This course will provide pre-service teachers with the knowledge and skills to provide effective adaptations and accommodations for students with disabilities in contentarea instruction. Prerequisites: SPE 402, 415, 416, 417a, 470, 471 and EPFR 315 and 320 with grades of \(C\) or better. Must be taken concurrently with SPE 412, 471b, 418 and 421.
430-3 Classroom Management and Behavior Support in Special Education - Designing effective learning environments and individualized behavior support plans, and applying research-based behavioral practices. Not for graduate credit. Prerequisites: SPE 100 with a grade of B or better and admission to the Special Education program. Must be taken concurrently with SPE 401, 405 and 450.
440-3 Infants and Toddlers with Special Needs and Their Families - 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. Prerequisite: SPE 400.
441-3 Assessment of Preschool Children with Special Needs - Instruments for assessment of academic, cognitive, perceptual-motor development., diagnosis and remediation. Prerequisite: SPE 440.
442-3 Methods and Procedures for Teaching Early Childhood Students with Special Needs - Knowledge and skills needed to provide educational services and supports to early childhood students with disabilities and their families. Prerequisite: SPE 440.

\section*{450-3 Instructional Planning and Professional}

Collaboration in Special Education - Covers content in service delivery models, program planning and collaboration. Not for graduate credit. Prerequisites: admission to the Special Education Program. Must be taken concurrently with SPE 401, 405 and 430.
470-3 Transition Planning - Overview of transition planning and programming for students with disabilities. Not for graduate credit. Prerequisite: SPE 100 with a grade of B or better and admission to the Special Education program.
471-3 School and Family Partnerships for Special Education - Examines educational, psychological, and political issues that arise when developing collaborative relationships between schools and families. Not for graduate credit. Prerequisites: SPE 100 with a grade of B or better and admission to the Special Education program. SPE 401, 405,430 and 450 with grades of C or better. Must be taken concurrently with SPE 402, 416 and 417 a.
481-3 Senior Seminar Special Education — Professional, ethical and legal concerns of assessment; instruction, evaluation, behavior management, and technologies. Not for graduate credit. Prerequisite: all general education and special education requirements except SPE 499. Must be taken concurrently with SPE 499.

496-1 to 6 Readings and Independent Study in Special Education - Specific problem areas in education of individuals with disabilities. Topic conditions of study approved via contract. Not for graduate credit. Prerequisite: consent of instructor.
498-3 to 6 Workshop: Selected Topics In Special
Education - Topical workshop on concepts, strategies, and concerns in special education. May be repeated to a maximum of 6 hours.

499-12 Special Education Student Teaching - Teaching students with social and emotional disorders under immediate supervision of cooperating teacher and general supervision of university instructor. Not for graduate credit. Prerequisite: completion of all required coursework. Must be taken concurrently with 481 .

\section*{Speech-Language Pathology and Audiology (SPPA)}

201-3 Human Communication and Its Disorders Introduction to speech, language and swallowing disorders in people of all ages including assessment and treatment techniques. Prerequisite: Student must have completed 42 hours of college level work.
231-3 Phonetics - Basic orientation to speech sounds including their individual differences, descriptions and transcriptions of typical and disordered speech. Declared majors only. Prerequisites: Completion of SPPA 201 with a grade of \(B\) or better or concurrent enrollment.
310-3 Fundamentals of Language Analysis - This course provides an introduction to human language with emphasis on clinical language analysis, specific to speech-language pathology and audiology majors. Declared majors only. Prerequisites: Completion of SPPA 201 with a grade of \(B\) or better or concurrent enrollment..

312-3 Normal Language and Speech Acquisition - Typical development of language, theory and milestones including phonology, morphology, syntax, semantics, and pragmatics. Declared majors only. Prerequisites: Completion of SPPA 201 with a grade of \(B\) or better or concurrent enrollment..
320-3 Anatomy and Physiology of the Speech and Hearing Mechanism - Structure and function of normal communication system. Declared majors only. Prerequisites: Completion of SPPA 201 with a grade of \(B\) or better or concurrent enrollment.
321-3 Hearing Science - Study of the properties of sound, including theories related to auditory physiology and perception. Prerequisites: Completion of SPPA 231 and 320 with grades of C or better.
322-3 Speech Science - Basic orientation to the physiological components underlying the propagation, acoustics, and perception of the speech signal in normal human communication. Prerequisites: Completion of SPPA 231 an 320 with grades of C or better.
351-3 Communication Disorders Associated with Genetic Syndromes - Describes the characteristics of the speech, language and hearing disorders associated with a number of genetic syndromes. Prerequisite: BIOL 111 or equivalent.
399X-3 Clinical Language Analysis in Speech-Language Pathology and Audiology - This course will provide future speech-language pathologists and audiologists with a theoretical framework for understanding the structure of

English and analyzing the language samples of language disordered clients. Prerequisite: Declared majors only. SPPA 201 with a grade of \(B\) or better or concurrent enrollment.
400-1 to 3 Independent Study in Speech Pathology and Audiology - Investigative consideration of relevant topics not covered extensively in regular curriculum. May be repeated to a maximum of 9 hours. Prerequisite: consent of instructor.
401-0 Speech Language Pathology and Audiology Co-op - Cooperative experience in speech-language pathology and audiology. Prerequisites: Declared majors only. Approval from Career Development Services.
402-0 Speech Language Pathology and Audiology Internship - Internship in speech-language pathology and audiology. Prerequisites: Declared majors only. Approval from Career Development Services.
414-1 to 3 Special Topics in Speech-Language Pathology - The purpose of this course is to expose SPPA majors to a variety of topics unique to speech-language pathology and audiology. May be repeated to a maximum of 6 hours. Prerequisites: Completion of SPPA 201 with grade of B or better.

441-3 Speech Sound Disorders Child - An introduction to speech sound disorders in children; etiology, characteristics, assessment, and treatment; a theoretical and practical perspective. Not for Graduate Credit. Prerequisites: Completion of SPPA 312, 321, and 322 with grades of C or better.
442-3 Introduction to Voice, Fluency, and Motor Speech Disorders - Characteristics of voice, fluency and motor speech disorders including basic diagnostic and intervention strategies. Not for graduate credit. Prerequisites: Completion of SPPA 312, 321 and 322 with grades of \(C\) or better.
444-3 Language Disorders Across the Life Span Etiology, assessment, and intervention with individuals from infancy through adulthood with language disorders. Not for graduate credit. Prerequisites: Completion of SPPA 312, 321 and 322 with grades of C or better.
445-3 Language Disorders of Adults - Etiology, assessment, and intervention with individuals with acquired communication disorders. Prerequisites: Completion of SPPA 312 and 320.
446-3 Clinical Observation and Procedures in Communication Disorders - Basic orientation to clinical procedures and observations for therapeutic intervention. Not for graduate credit. Prerequisites: Completion of SPPA 312, 321 and 322 with grades of \(C\) or better.
449-1 to 3 Clinical Practicum in Speech-Language
Pathology - Supervised clinical practice with individuals with a variety of speech and language disorders. May be repeated to a maximum of 9 hours. Graded Pass/No Credit. Not for graduate credit. Prerequisites: Completion of SPPA 441, \(442,444,446\) and 461 with grades of \(C\) or better.
450-3 Clinical Procedures in Medical and Educational
Settings - Role of the speech-language pathologist in medical and educational settings including legal, organizational, and professional issues related to service delivery options. Not for graduate credit. Prerequisites: Completion of SPPA 441, 442 and 444.
452-3 Assessment Procedures in Speech-Language Pathology and Audiology - Advanced procedures in obtaining, recording, and evaluating assessment results. Not for graduate credit. Prerequisites: Completion of SPPA 441, \(442,444,446\) and 461 with grades of \(C\) or better.

461-3 Basic Audiometry - Principles and techniques of pure tone and speech reception and immittance audiometry testing. Not for graduate credit. Prerequisites: Completion of SPPA 312, 321 and 322 with grades of C or better.
469-3 Clinical Procedures for Individuals with Hearing Disorders - Clinical course in audiological assessment, interpretation, and management. Course includes supervised clinical labs in audiometric test procedures and hearing screenings on- and off-campus. Prerequisites: Completion of SPPA 461, 3.0 GPA.
471-3 Aural Rehabilitation - Management of persons with hearing impairments including auditory training, speech reading, and counseling. Not for graduate credit. Prerequisites: Completion of SPPA 441, 442, 444, 446 and 461 with grades of C or better.

\section*{481-3 Problems and Characteristics of Children with} Hearing Impairments - Characteristics of speech, language, social, emotional and educational problems of children with hearing impairments. Definitions, current management and service delivery models. Not for graduate credit.
497-3 Neuroanatomy and Physiology — The brain and neural systems as they relate to normal and disordered communication and its application to clinical case studies. Not for graduate credit. Prerequisites: SPPA 441, 442, 446 and 461 with grades of \(C\) or better, or concurrent enrollment.
498-3 Augmentative and Alternative Communication Examination of the transdisciplinary field of augmentative and alternative communication (AAC) as well as to the assistive technologies and diagnostic/treatment approaches critical for AAC. Prerequisites: Completion of SPPA 444, 446 and 452 or equivalent.
499-2 Senior Assignment Seminar - Analytical and critical study of topics related to research, professionalism, and clinical practice in speech language pathology. Not for graduate credit. Prerequisites: SPPA 441, 442, 444, 446 and 461 with grades of C or better.

\section*{Statistics (STAT)}

107-3 Concepts of Statistics - [BICS, PS, SKST] Basic concepts of descriptive statistics; probability distribution and inferential statistics (estimating parameters and testing hypotheses); sampling, experimental design, correlation and regression, consumer price index. Credit may not be granted for both 107 and 244. Prerequisite: one and one half years of high school algebra or AD 095 with grade of C or better.
244-4 Statistics - [BICS, PS, SKST] [IAI No. M1 902] Summarizing data, including distributions, change and growth, relationships. Basics of survey design and experimental design. Inferential statistics, including confidence intervals and hypothesis testing. Credit may not be granted for both 107 and 244. Prerequisite: MATH 120 or 125 or 150 with grade of C or better.
380-3 Statistics for Applications - [BICS, PS, SKST] Descriptive statistics, basic probability rules and distributions, inferences for means, variances and proportions, design and analysis of experiments, regression analysis. Prerequisite: MATH 152 with grade of C or better.
410-3 Statistical Analysis - [PS] Design of surveys and experiments. Inferential statistics, including confidence intervals and hypothesis testing. Simple and multiple regression. May not be used to satisfy requirements of a mathematics or statistics major specialization or minor.

Prerequisites: MATH 150 with grade of C or better or consent of instructor.

478-3 Time Series Analysis - [PS] Statistical analysis of time series. Regression and exponential smoothing. BoxJenkins methodology. Prerequisites: 380 or 480b with grades of \(C\) or better.

480a,b-3 each Introduction to Mathematical Statistics - [PS] Mathematical statistical theory. Probability models, distributions of random variables, sampling distributions, generating functions, central limit theorem and limiting distributions, parameter estimation, statistical hypotheses, linear models. Must be taken in sequence. Prerequisite: a) MATH 250 with grade of \(C\) or better b) 480a with grade of \(C\) or better.

\section*{481-3 Design and Analysis of Experiments with} Applications to Science and Engineering - (Same as IE 464) [PS] 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. Prerequisite: 380 or \(480 \mathrm{a}, \mathrm{b}\) with grades of C or better.

482-3 Regression Analysis - [PS] Inference in simple, multiple, polynomial and non-linear regression. Stepwise regression, subset selection; residual analysis, transformations and diagnostics. Prerequisite: 380 or 480a,b with grades of C or better or consent of instructor.

483-3 Sample Surveys - [PS] Simple random sampling, stratified sampling, one-stage and two-stage cluster sampling. Ratio, regression, difference estimation. Estimation of population size. Prerequisite: 380 or 480a,b with grades of C or better or consent of instructor.
484-3 Reliability Engineering - (Same as IE 463) [PS] Probabilistic models for the reliability of coherent systems, statistical models for lifetimes of components and for repairable systems, reliability estimation and production, MIL standards. Prerequisites: 480a,b or IE 365 with grades of C or better.
485-3 Stochastic Processes - [PS] Markov chains with applications, Poisson processes, Markov processes with discrete states in continuous time, renewal theory and queuing theory, Brownian motion and stationary processes. Prerequisites: 480a with grade of \(C\) or better.

486a,b-3 each Actuarial Mathematics - [PS] Utility theory, risk models, survival distributions, life tables. Life insurance models, life annuities, premium calculation, valuation theory for pension plans. Prerequisite: MATH 340 and either 380 or 480a with grades of C or better.
488-3 Design and Control of Quality Systems - (Same as IE 465) [PS] Quality design by experimental design; determination of process capability; quality control using statistical control charts; acceptance sampling. Prerequisite: \(480 \mathrm{a}, \mathrm{b}\) or IE 365 with grades of C or better.
490-1 to 3 Topics in Statistics - Selected topics in statistics. May be repeated to a maximum of 6 hours. Prerequisite: consent of instructor.
495-1 to 3 Independent Study - [PS] 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. Prerequisite: written consent of advisor and instructor.

\section*{Study Abroad (SAB)}

200-6-16 Study Abroad - University-approved study abroad in a country and institution of the student's choice. Prerequisites: good standing and sophomore status.

300-6-16 Study Abroad - University-approved study abroad in a country and institution of the student's choice. Prerequisites: good standing and sophomore status.
400-6-16 Study Abroad — University-approved study abroad in a country and institution of the student's choice. For undergraduate or graduate credit. Prerequisites: good standing and sophomore status.

\section*{Theater (THEA)}

111-3 The Dramatic Experience - [BFPA, IFAH] (IAI No. F1 907) Introductory course to give student understanding of how essential components of theater work together to produce the dramatic experience.

112a-3 Core: Acting I - Introduction to Acting - [DFAH, FPA] Fundamentals of acting combining improvisational exercises with method approach to developing role; emphasis on relaxation, imagination, concentration, objectives. Open to non-majors.
112b-3 Core: Acting II - Creating a Role - [DFAH, FPA] Beginning work in scene study and monologues; emphasizing serious, internal realistic acting techniques applicable to both stage and TV/film. Prerequisite: 112a.

114a,b-3 each Core: Forms Of Dramatic Action - [DFAH, FPA] Principles of dramatic action as exemplified in selected plays. Relationships between theatrical process and dramatic form in tragedy and comedy. Theatre majors only.
141-3 Film Analysis - [DFAH, FPA] Fundamentals of film analysis studied as a skill essential to the understanding of narrative visual media.
150-3 Core: Scene Design and Construction - [DFAH, FPA] Designing and executing of scenery used in theater productions. Laboratory and production work are required.
160-3 Core: Costume Design and Construction - [DFAH, FPA] Designing and executing of costumes used in theater productions. Laboratory and production work are required.
170-3 Core: Lighting and Sound - [DFAH, FPA] Designing and executing of lights and sound used in theater productions. Laboratory and production work are required.
199-0 Theater Production - [FPA] Practical work on University Theater productions. Backstage work in scenery, lighting, costumes, props, sound, or makeup. Work to be arranged for individual needs and interests.

201a,b-3 each Core: History of the Theater - [DFAH, FPA] [IAI No. F1908] Drama, performance, architecture, design, and cultural environment of (a) Primitive, Greek, Roman, Medieval, Renaissance; (b) Restoration, Eighteenth century, Romantic, Modern. Prerequisite: 114a,b.
205-1 to 3 Theater Business Management Practicum [DFAH, FPA] Principles of management systems organization and practice as applied to performing arts units. Mission development, personnel selection, funding, budgeting, promotion, operational continuity. Internship.
210a-3 Acting III - Comedy and Characterization [DFAH, FPA] Exercises and scene work introducing external techniques for physical/vocal characterization and comedy. Prerequisites: 112a,b.

\section*{Theater (THEA)}

210b-2 Improvisation - [DFAH, FPA] Building the imagination and extending vocal and physical skills through use of improvisation exercises, scenes, and stories. Prerequisite: consent of instructor.
215a-3 Movement and Voice for the Stage - [DFAH] Principles of stage movement and theatrical vocal technique: vocal production, vocal and physical characterization, introduction to dialect study and stage combat. Prerequisites: \(112 a, b\) and consent of instructor.

215b-3 Stage Combat - [DFAH, FPA] Basic empty-handed combat for the stage. Safety stressed and choreography explored. Weaponry may be introduced. Prerequisite: consent of instructor and good physical health.
220-3 Core: Directing for the Stage - [DFAH, FPA] Elements of director's craft: interpretation, composition and blocking, design and technical considerations, working with actors and directing a scene. Prerequisites: 112a, 150, 160, or 170.

230-2 to 3 Rehearsal and Performance - [FPA] Acting practicum in stage productions developed for public performance. Role analysis, ensemble playing, rehearsal and performance discipline. May be repeated with consent of instructor. Prerequisite: must be cast in theater production.
235-2 Introduction to T'ai Chi Ch'uan — [FPA] "Slow motion" exercise that promotes relaxation, circulation, balance, flexibility. Includes principles and postures from short form of Yang style T'ai Chi Ch'uan.

241-3 Classic Film - [DFAH, FPA] Highlights of narrative film history with emphasis on periods and movements which have had enduring influence on contemporary film. Prerequisite: 141 or consent of instructor.
250-3 Theater Graphics - [DFAH, FPA] Basic theatrical drawing-studio. Perspective rendering, drafting, water color techniques, figure drawing. Prerequisite: one year of beginning art studio or consent of instructor.
255-2 Scene Painting for the Theater - [FPA] Traditional and contemporary techniques including layout, cartooning, lining, textures, color. Studio work. Prerequisite: 150; 160 recommended.

265-2 Theater Makeup - [FPA] Design and application techniques using pancake, grease paint, prosthetics, crepe hair. Projects include character, old age, ethnic, fantasy makeup. Prerequisite: consent of instructor.
275-2 Sound for the Theater - [FPA] Sound control, microphone amplification, acoustics, sound effects. Practical operation with microphones, turntables, tape decks, and loudspeakers.

276-1 to 3 Projects in Stage Management - [FPA] Practical experience serving as stage assistant director and/or stage manager for University or Student Experimental Theater productions. May be repeated to a maximum of 9 hours. Prerequisites: 150, approval of director of production, and consent of instructor.

290-1 to 3 Special Projects - [FPA] Individual work in any area of theater. May be repeated to maximum of 6 hours. Prerequisite: consent of instructor.

295-1 to 3 Theater Practicum - [FPA] Practical work on University Theater productions. Backstage work in scenery, lighting, costumes, props, sound, or makeup. Work to be arranged for individual needs, interests. May be repeated to a maximum of 6 hours. Prerequisite: consent of instructor.

298-3 Introduction to Theater Education in Secondary
School - [FPA] Philosophies of arts education, focusing on teaching theater arts in secondary school. Planning and executing of lesson plans and productions in secondary school. Prerequisite: must have passed the designated basic skills test ACT or TAP.

\section*{309-3 Musical Theater Workshop - [DFAH, FPA]}

Preparation and performance of musical comedy scenes in a variety of styles: acting, singing, dancing ensemble, solo work. May be taken twice. Prerequisite: must have completed all Theater and Dance core courses. This restriction does not apply to non-Theater and Dance majors or minors.

310a-3 Acting IV - Period Styles - [FPA] A variety of theater genres are explored through their language, physicalization, history, and dramatic literature. Scenes/ monologues performed from each period/style. Prerequisites: THEA 112b and 215a.

310b-3 Acting V - International/Experimental Styles [EGC, FPA, IC] Utilization of international and experimental performance techniques, designed to promote global and contemporary aesthetics and abilities. Prerequisite: Junior standing or consent of instructor.
312-3 Multi-Cultural Theater in America - [DFAH, EUSC, FPA, IGR] Facilitate understanding of multicultural theater in America through discussion, performance, and play readings centered around artists of different ethnic backgrounds.
315a-3 Dialects for the Stage - [FPA] Foreign and American dialects. Scenes and monologues performed in dialect. International Phonetic Alphabet (IPA) introduced. Prerequisite: THEA 112a.

315b-3 Advanced Movement - [FPA] Character masks, neutral masks, and other movement techniques are used for characterization, awareness, body, and stage presence. Prerequisites: THEA 112b, 215b.
350-3 Scene Design — [DFAH, FPA] Advanced study of rendering techniques. Design projects, critique sessions, and research techniques. May be taken twice. Prerequisite: THEA 250.
360-3 Costume Design - [DFAH, FPA] Theory, rendering techniques, history of dress and costume construction techniques, research for period silhouettes and character presentation. Laboratory work on University Theater productions required. Prerequisite: THEA 160.
370-3 Advanced Lighting Design - [DFAH, FPA] Lighting concepts and sensitivity to lighting environments. Lighting plans, light plots, schedules and section drawings. Laboratory work on University Theater productions required. Prerequisite: THEA 170.

394-3 Playwriting - [DFAH, FPA] Provides a close acquaintance with a range of theatrical strategies explored by playwrights and a workshop forum for the development of students' own writing. Prerequisites: ENG 102, sophomore standing.

398-3 Advanced Studies in Theater Education in
Secondary School - [FPA] Practical application and execution of teaching theater in the secondary school. Practical work in theater productions at the middle school or high school level. Prerequisites: 298; must have completed all Theater and Dance core courses. This restriction does not apply to non-Theater and Dance majors or minors. Must also have passed the designated basic skills test ACT or TAP.

399-1 to 3 Special Topics in Theater - [DFAH, FPA] Varied Content. Topics related to theater and/or dance. May be repeated up to 6 hours as long as no topic is repeated. Prerequisites: consent of instructor.
410-3 Acting as a Career - [DFAH, FPA] Information and skills necessary to gain professional work as an actor or acting teacher. Auditions, photographs, interviews, cold readings, commercials, voice tapes, introduction to television acting. Not for graduate credit. Prerequisite: Senior performance major or consent of instructor.
412-3 Acting for the Camera - [DFAH, FPA] Acting principles and techniques. Exercises, commercials, and scenes from television scripts will be video-taped and critiqued for on-camera effectiveness. Not for graduate credit. Prerequisites: THEA 112a.
420-3 Projects in Directing - [DFAH, FPA] Direction of plays staged for performance. Analysis of script, development of director's prompt book, rehearsal procedure, collaborative work with designers. Done under faculty supervision. May be repeated to a maximum of 6 hours. Not for graduate credit. Prerequisites: THEA 220 and consent of instructor.
430-2 to 3 Rehearsal and Performance - [FPA] Acting practicum in stage productions developed for public performance. Role analysis, ensemble playing, rehearsal, performance discipline. May be repeated with consent of instructor. Not for graduate credit. Prerequisite: must be cast in theater production.
450-1 to 3 Advanced Scene Design Projects - [FPA] Advanced practical work on studio or University Theater productions. May be repeated to maximum of 9 hours. Not for graduate credit. Prerequisites: 350 and consent of instructor.
452-3 Native American Women - [BHUM, DSS, EUSC, IGR] Investigates Native American gender roles, particulary women's roles, from an ethnohistorical perspective. Crosslisted with HIST 452.
460-1 to 3 Advanced Costume Design Projects - [FPA] Advanced practical work on studio or University Theater productions. May be repeated to maximum of 9 hours. Not for graduate credit. Prerequisites: 360 and consent of instructor.
470-1 to 3 Advanced Lighting Design Projects - [FPA] Advanced practical work on studio or University Theater productions. Normally limited to work as lighting designer, assistant lighting designer, or master electrician. May be repeated to a maximum of 9 hours. Not for graduate credit. Prerequisites: 370 and consent of instructor.
475-1 to 3 Advanced Stagecraft Project - [FPA] Advanced practical work on studio or University Theater productions in area of technical theater. May be repeated to a maximum of 9 hours. Not for graduate credit. Prerequisites: consent of instructor; must have completed all Theater and Dance core courses. This restriction does not apply to non-Theater and Dance majors or minors.
480-3 Computers for Theater: Multi-Image Presentations - [DFAH, FPA] Computer image-making techniques related to theater and dance. Class/lab work includes computer graphics, "paint box," three dimensional imagery, ray tracing, video digitizers, computer enhancing, multi-slide presentations. Prerequisites: advanced undergraduate or graduate standing and consent of instructor.
485-1 to 3 Special Projects in Computers - [FPA] Individual or small group project work in computers as related to
performing arts. Computer graphics, computer animation, video enhancing, multi-image slide productions. May be repeated to a maximum of 9 hours. Prerequisites: advanced undergraduate or graduate standing and consent of instructor.
490-1 to 3 Special Projects - [FPA] Individual work for advanced students in any area of theater. May be repeated to a maximum of 6 hours. Not for graduate credit. Prerequisite: consent of instructor.

495-1 to 3 Theater Practicum - [FPA] Practical work in University Theater productions. Backstage work in scenery, lighting, costumes, props, sound, or makeup. Work to be arranged for individual needs, interests. May be repeated to a maximum of 6 hours. Not for graduate credit. Prerequisite: consent of instructor.
498-1-3 Independent Study - [FPA] Individual or small group readings under supervision of a faculty member. May be repeated to a maximum of 6 hours.
499a,b,c-3 Senior Assessment in Theater - [FPA] (a) Performance; (b) Design/Technical; (c) Theater History/ Literature/Criticism. Individual/group projects demonstrating proficiency in theater applications and General Education skills and knowledge. Prerequisite: senior standing and consent of instructor.

\section*{University (UNIV)}

300-3 Exploring Leadership - This course is designed to provide student leaders at SIUE with the knowledge and skills to become effective campus leaders. This course is designed to give students an understanding of the theory and foundation of leadership as well as provide opportunities to explore their identities as leaders and practice leadership skills.

\section*{Women's Studies (WMST)}

200-3 Issues in Feminism - [BSS, DSS, DFAH, EUSC, IGR] Beliefs, values, and commitments of the women's movement and their implications for lives of both women and men. May count for DSS or DFAH, but not both.
300-3 Women's Health - (Same as HED 300) Explores health trends that affect women. Analysis of psychosocial influences on health with particular emphasis on the link between wealth and health.
305-3 Psychology of Gender - [BSS, DSS, EUSC, IGR] (Same as PSYC 305) Psychological and cultural history of gender, changing sex roles, socialization, sexuality, issues related to mental health, stereotyping, and cognition. Prerequisite: PSYC 111.
308-3 Women, Gender and Society - [BSS, DSS, EUSC, IGR] (Same as SOC 308) Sociological and feminist perspectives on women in American society with an emphasis on institutions which create, maintain, and reproduce gender and gender inequality.
310-3 The Sociological Study of Sexualities and Society - [BSS, DSS] (Same as SOC 310) The sociological studies of sexualities with an emphasis on how sexualities are shaped by and operate within various institutions including medicine, economy, family, and education.
313-3 Women in Cross-Cultural Perspective - [BSS, DSS, EUSC, IGR] (Same as ANTH 313) Comparisons of positions, roles, and problems of women in contemporary cultures from selected world areas and socioeconomic levels. Anthropological perspectives on issues of women's studies.

\section*{Women's Studies (WMST)}

315-3 Family and Household Cross-Cultural Perspective - [BSS, DSS, EGC, IC] (Same as ANTH 315) Examines family and household forms in a variety of historical and cultural contexts; explores family experiences through films, narratives and ethnographies.
331-3 Gender and Communication - [DFAH, EUSC, IGR] (Same as SPC 331) Investigation of the influences of gender on the communication process. Activities, exercises and presentations, sensitize students to gender influence on verbal and nonverbal communication.
341-3 African-American Women's Writing - [BHUM, DFAH, EUSC, IGR] (Same as ENG 341) Poems, novels, short stories, essays, dramas, autobiography and other texts by African American women writers during various periods from colonial to contemporary times.

344-3 Women and Values - [BHUM, DFAH, EUSC, IGR] (Same As PHIL 344) Examines women's philosophical contributions to traditional areas of value theory including ethics; social, legal and political philosophies; and philosophies of art and religion. Prerequisite: One prior Philosophy or Women's Studies course.

345-3 Women, Knowledge and Reality - [BHUM, DFAH, EUSC] (Same as PHIL 345) The course surveys various feminist theories of knowledge, with particular attention to science and how gender influences our claims to knowledge.
346-3 Feminist Theory - [BHUM, DFAH, EUSC, IGR] (Same as Major theoretical works of women's movement. Prerequisite: WMST 200 strongly recommended. (Crosslisted with PHIL 346.)

350-3 Women in Social Institutions: A Comparative Approach - [EUSC, IGR, IS] (Same as IS 350) Historical, cultural, and social class differences in contexts of education, family, health care, economics, religion, politics.
351-3 Women in Mass Communications - [DFAH, EUSC, IGR] (Same as MC 351) Early minority and white women journalists' struggles. Social, political, technological contexts. Media as tools of social change. Historical patterns. Positive and negative male influences. Prerequisite: junior standing.

352-3 Women in the Ancient World - [EGC, EUSC, IS, IC, IGR] (Same as IS 352) History, political and social lives, and literary and artistic representations of/by women in ancient Egypt, Mesopotamia, Greece, and Rome. Prerequisites: Junior or Senior Standing.
353-3 Representing Women's Bodies 300-1500 - [EGC, IS, IC] (Same as IS 353) Evolution of the ideological construction of the female body as weak or deformed, and the need to transform it so as to be fully human and attain salvation.

354-3 Women and Cross Cultural National Politics [BSS, DSS, EUSC, IGR] (Same as POLS 354) Women as citizens and as political leaders in the areas of politics, labor, peace, war and violence. Prerequisite: POLS 111 or consent of instructor.

367-3 Gender and Criminal Justice - (Same as CJ 367) Explores issues of gender in criminal justice, particularly with regard to offending, victimization, processing, incarcerating, rehabilitating, and among professionals in the field.
Prerequisite: CJ 201 or SOC 201.
390-3 Special Problems - [DFAH or DSS] Varying topics in the study of gender bearing directly on Women's experience. May be repeated for maximum of 6 hours provided no topic is repeated.

391-3 Marriage and the Family - [BSS, DSS] [IAI No. S7 902] (Same as SOC 391). Marriage and the family in U.S. society; behavioral change including gender roles, dating and mate selection, love and intimacy, alternative family forms, communication/conflict, divorce/remarriage
394-3 Sociology of the Black Family - [DSS, EUSC, IGR] (Same as SOC 394) The black family in U.S. society; historical and sociological study of contemporary black family forms, gender roles, love, intimacy and mate selection, parenting, well-being of children.
428-3 Topics in European Women's History - [BHUM, DSS, EGC, II] (Same as HIST 428) Selected topics in women's history since the Middle Ages. Chronological framework will vary from semester to semester.
440-3 Women in American Social History - [BSS, DSS, EUSC, IGR] (Same as HIST 440) Women from various social classes, ethnic and racial groups, and geographic regions. Social institutions such as family; church; schools; etc. Colonial era to present.
441-3 Women and Politics in America - [BSS, DSS, EUSC, IGR] (Same as POLS 441) Consideration of politics and power in gender roles, family, class, occupation and research; woman and political system and women and public policy. Prerequisite: POLS 112 or consent of instructor.
444-3 Gender, Ethnicity, and Class in the Workplace [BSS, DSS, EUSC, IGR] (Same as SOC 444; only SOC 444 approved for Graduate Credit.) Traces the evolution of work for women of different races and classes, and studies what issues women now face in the public and private spheres. Not for graduate credit.
445-3 American Masculinity - [DSS, EUSC, IGR]
(Same as HIST 445) Gender history exploring the different manifestations of manhood as it has been constructed by Americans from the seventeenth century to the present.
451-3 Gender and Education - [EUSC, IGR] (Same as EPFR 451) Policies and practices related to sex-role stereotyping, teacher expectations and gender, curricular bias, discrimination, personnel policies, strategies for change.

452-3 Native American Women - [DSS, EUSC, IGR] (Same as HIST 452) Investigates Native American gender roles, particularly women's roles, from an ethnohistorical perspective.
455-3 Women and Gender in Islamic History - [DSS, EGR, IC] (Same as HIST 455) Examines the role of women in Islamic history from the pre-Islamic Middle Eastern context through the establishment of classical islamic family law to contemporary reforms.

456-3 Seminar on Women Writers - [BHUM, DFAH, EGC, IC] (Same as FR 456) Fiction, nonfiction, drama, and poetry. Taught in English. For credit in FL, term paper written in French.
473-3 Women in Art - [DFAH, EGC, FPA, IC] (Same as ART 473) History of women artists from the Renaissance to the present. Prerequisites: 225 b with grade of C or better or consent of instructor.
478-3 Studies in Women, Language, and Literature
- [BHUM, DFAH, EUSC, IGR] (Same as ENG 478) Relationships among society, gender, language, and literature: ways women are affected by and depicted in language and literature; literature written by women; feminist criticism. Prerequisite: junior standing or consent of instructor.

\section*{Women's Studies (WMST)}

490-3 Special Problems - Varying topics, in-depth study of gender and women's experience. May be repeated for a maximum of 6 hours provided no topic is repeated. Prerequisite: consent of Women's Studies director.
495-1-3 Independent Study — Individual research in women's experience or feminist theory. Content and format to be arranged with instructor. Prerequisite: consent of Women's Studies director.

499-3 Practicum Women's Studies - Practical learning experience in women-oriented activities or organizations. Ten hours weekly plus readings or paper. Prerequisite: consent of Women's Studies director.


\section*{Southern Illinois University Edwardsville 2015-2016 Undergraduate Catalog Index}

\section*{A}

Academic Advising ........................................................... 49
Academic Calendar ........................................................... 4
Academic Degrees and Programs ...................................... 61
Academic Development .......................................................... 43
Academic Development (AD) Courses ................................ 336
Academic Forgiveness ...................................................... 13
Academic Load .................................................................... 18
Academic Policies and Requirements ................................. 18
Academic Probation (Transfer Students).............................. 10
Academic Progress Policy.................................................... 36
Academic Probation and Suspension ................................... 25
Academic Recognition ....................................................... 25
Accountancy ................................................................ 205
Accounting (ACCT) Courses ............................................ 336
Accounting, Continuing Professional Education...................... 314

Adding Classes ............................................................... 15
Admission ...................................................................... 8
Admission, Early .............................................................. 9
Admission, GED .....................................................................
Admission, Traditional First-Time Freshmen .............................. 8
Admission, Transfer .......................................................... 9
Admission, Visiting Student.................................................... 12
Advanced Placement ..................................................... 20
Aerospace Studies (AS) Courses ....................................... 337
Affirmative Action, Equal Opportunity and ........................... 317
African Studies Minor ............................................................ 190
Air Force ROTC ............................................................... 221
Alcohol and Drug Policies ................................................... 317
Anthropology ................................................................. 76
Anthropology (ANTH) Courses ........................................... 337
Appeals, Financial Aid ......................................................... 38
Application Deadine ........................................................ 8
Application Fee.............................................................. 8
Application for a Major or Minor........................................... 18
Application for Graduation................................................... 26
Applied Communication Studies ........................................... 79
Applied Communication Studies (ACS) Courses .................... 339
Applying for Financial Assistance ....................................... 28
Arabic (ARA) Courses ...................................................... 341
Army ROTC ..................................................................... 221
Art and Design ............................................................ 83
Art and Design (ART) Courses ........................................... 341
Art and Design Building ...................................................... 321
Arts and Sciences, College of ............................................. 75
Arts \& Issues .............................................................. 315
Asian Studies Minor....................................................... 190
Assessment and the Senior Assignment .............................. 71
Athletics, Intercollegiate.................................................... 45
Attendance ................................................................................
Auditing Courses ........................................................... 24

\section*{B}

Bachelor of Liberal Studies (BLS) ......................................... 187
Bill, Paying with Financial Aid ............................................. 29
Biological Sciences ............................................................ 89

Biological Sciences (BIOL) Courses ................................... 344
Birger Hall .................................................................. 321
Black Studies, Minor in ......................................................... 191
Bluff Hall, Prairie Hall and Woodland Hall .............................. 321
Bursar ....................................................................................
Business, School of........................................................... 199
Business Administration .................................................. 209
Business Admininistration Minor ........................................... 214
Business Economics and Finance ........................................... 214

C
Campus Activities Board ...................................................... 44
Campus Visits ................................................................ 4
Career Development Center .................................................. 49
Center for Spirituality and Sustainability............................... 321
Chancellor's Welcome ...................................................... 3
Changes in Registration ................................................. 15
Chemistry ........................................................................... 99
Chemistry (CHEM) Courses ............................................ 348
Chinese (CHIN) Courses .................................................. 350
Civil Engineering .......................................................... 258
Civil Engineering (CE) Courses .......................................... 350
Class Attendance .......................................................... 18
Classical Studies, Minor in ............................................... 192
Classification of Students.................................................. 18
College Level Examination Program (CLEP) ........................... 21
College of Arts and Sciences ............................................... 75
Community Services ....................................................... 315
Computer Management and Information Systems (CMIS) ....... 218

Computer Network .......................................................... 49
Computer Science ......................................................... 261
Computer Science (CS) Courses ...................................... 352
Construction ............................................................................
Construction (CNST) Courses ............................................ 354
Convocation,The SIUE Experience and ................................... 53
Cougar Village...................................................................... 321
Counseling Services ......................................................... 49
Course Descriptions ...................................................... 333
Credit, Transfer .............................................................. 19
Credit by Examination ...................................................... 19
Crime, Notification of Students .............................................. 317
Criminal Justice (CJ) Courses ........................................... 355
Criminal Justice Studies, Sociology and ............................... 174
Culture, Ideas, and Values (CIV) Course .............................. 356
Curriculum and Instruction .................................................... 228
Curriculum and Instruction (CI) Courses .............................. 356

\section*{D}

Dance (DANC) Courses ...................................................... 359
Dean's List (Academic Recognition) ...................................... 25
Degrees and Programs ....................................................... 61
Dental Medicine, School of ............................................. 297
Designations Used in Course Descriptions ............................ 335
Dining Services ............................................................. 50
Disability Support Services ................................................... 50
Diversity, Statement on ..... 7
Double Majors ..... 18
Dropping Classes ..... 16
Dual Admission Program. ..... 10
Dunham Hall ..... 321
E
Email Accounts ..... 49
Early Childhood Center ..... 50,321
Early Childhood Education ..... 229
Earth and Space Science Education ..... 166
Earth Science (ESCI) Courses. ..... 360
East St. Louis Center ..... 314
Economics ..... 110
Economics (ECON) Courses ..... 360
Education, Health and Human Behavior, School of ..... 223
Educational Leadership ..... 237
Educational Outreach ..... 311
Educational Psychology, Foundations and Research (EPFR) Courses ..... 361
Electrical and Computer Engineering ..... 267
Electrical and Computer Engineering (ECE) Courses ..... 361
Elementary Education ..... 232
Eligibility for Financial Aid ..... 28
Employment ..... 32
Engineering Building ..... 321
Engineering, Civil. ..... 258
Engineering, Electrical and Computer. ..... 267
Engineering, Industrial ..... 271
Engineering, Mechanical ..... 274
Engineering, School of ..... 255
English ..... 113
English (ENG) Courses ..... 363
Environmental Resources Training Center ..... 312
Environmental Sciences (ENSC) Courses ..... 366
Environmental Sciences Minor ..... 190
Equal Opportunity and Affirmative Action ..... 317
European Studies/Civilization Minor ..... 192
Exercise Science ..... 237
F
F-1 (Student) Visas ..... 11
Facilities, Other ..... 322
Facilities, University ..... 321
Faculty Emeriti ..... 325
Fair Practice ..... 317
Final Examinations ..... 24
Finance (FIN) Courses ..... 367
Financial Aid ..... 28
Financial Aid, Determining Package ..... 29
Financial Aid, Eligibility ..... 28
Financial Information ..... 28
Financial Information, Additional ..... 39
Fitness Center, Student ..... 322
Foreign Languages and Literature ..... 118
Foreign Languages (FL) Courses ..... 368
Forensic Sciences Minor ..... 193
Forensic Chemistry. ..... 106
Founders Hall and Alumni Hall ..... 321
Fraternities and Sororities ..... 44
French (FR) Courses ..... 368
Freshman Admission .....  8
G
GED Test ..... 9
General Business Administration (GBA) Course ..... 369
General Education ..... 63
General Education, Objectives ..... 63
General Education Requirements ..... 63
General Education Requirements, Honors Program ..... 40
Geography ..... 125
Geography (GEOG) Courses ..... 370
German (GER) Courses ..... 372
Goals, Long-term University .....  7
Grading System ..... 23
Graduate School ..... 305
Graduation ..... 25
Graduation Appeals Committee ..... 26
Graduation, Application for ..... 26
Grants ..... 30
Greek (GRK) Courses ..... 372
H
Health Education ..... 240
Health Education (HED) Courses ..... 373
Heath Insurance Requirement (International Students) ..... 11
Health Service ..... 50
Historical Studies ..... 130
History (HIST) Courses ..... 374
Honors Program ..... 40
Honors Scholars (HONS) Courses ..... 376
Housing, University ..... 55
Humanities (HUM) Courses ..... 376
I
Identification Cards (Cougar Card) ..... 54
Illinois Articulation Initiative ..... 70
Immigration Advisement ..... 51
Independent Student, Definition ..... 28
Industrial Engineering. ..... 271
Industrial Engineering (IE) Courses. ..... 376
Information Technology Services ..... 51
Instructional and Tutorial Assistance ..... 43
Instructional Services ..... 43
Instructional Technology (IT) Courses ..... 378
Integrative Studies ..... 186
Integrative Studies Courses ..... 378
Intercollegiate Athletics ..... 45
Interdisciplinary Minors ..... 190
Interdiscipilinary Studies (IS) Courses ..... 378
International Student Admission ..... 11
International Student Services ..... 51
International Studies, Minor in Peace and ..... 195
International Trade Center ..... 316
Italian (ITAL) Courses ..... 380
K
Kimmel Student Involvement Center ..... 44
Kinesiology and Health Education ..... 237
Kinesiology (KIN) Courses ..... 380
L
Labor and Management Programs ..... 316
Latin American Studies Minor. ..... 193
Latin (LAT) Courses ..... 383
Legal Services ..... 54
Liberal Studies (LIBS) Courses ..... 383
Loans ..... 31
Location, University .....  5
Lovejoy Library ..... 51,321
M
Management (MGMT) Courses ..... 383
Management Science (MS) Courses ..... 384
Marketing (MKTG) Courses ..... 384
Mass Communications ..... 134
Mass Communications (MC) Courses ..... 385
Mathematics and Statistics ..... 138
Mathematics (MATH) Courses ..... 387
Mechanical and Industrial Engineering ..... 271
Mechanical Engineering ..... 274
Mechanical Engineering (ME) Courses ..... 388
Middle Level Education ..... 234
Military Experience Credit ..... 22
Military Science (MSC) Courses ..... 390
Minor in African Studies. ..... 190
Minor in Asian Studies ..... 190
Minor in Black Studies ..... 191
Minor in Classical Studies ..... 192
Minor in Environmental Sciences ..... 190
Minor in European Studies/Civilization ..... 192
Minor in Forensic Sciences ..... 193
Minor in Latin American Studies ..... 193
Minor in Native American Studies. ..... 194
Minor in Peace and International Studies ..... 195
Minor in Pre-Law ..... 195
Minor in Religious Studies ..... 196
Minor in Urban Studies ..... 197
Minor in Women's Studies ..... 197
Minor Programs of Study ..... 62
Mission, University .....  5
Morris University Center ..... 52, 322
Museum/Gallery ..... 52
Music ..... 145
Music (MUS) Courses ..... 390
N
Native American Studies Minor ..... 194
Non-Credit Programs and Services ..... 314
Non-traditional Freshman Admission .....  9
Non-Traditional Credit Programs and Services ..... 311
Notification of Students Involved in Violent Crime. ..... 317
Nursing (NURS) Courses ..... 393
Nursing, Accelerated Bachelor of Science Option ..... 284
Nursing, Non-Degree-Seeking Option ..... 288
Nursing, RN to BS Option. ..... 286
Nursing, School of ..... 277
Nursing, Traditional Option ..... 281
Nutrition ..... 242
Nutrition Courses ..... 395

\section*{0}
Off-Campus Classes ..... 311
Officers and Faculty Emeriti of the University ..... 323
Online Courses ..... 311
Operations Research (OR) Courses ..... 395
P
Parking ..... 53
Parking for Persons with Disabilities ..... 53
Peace and International Studies, Minor in ..... 195
Peck Hall ..... 322
Pharmaceutical Sciences (PHPS) Courses ..... 395
Pharmacotherapeutics (PHPT) Courses ..... 396
Pharmacy Administrative Sciences (PHAS) Courses ..... 396
Pharmacy Building ..... 322
Pharmacy Electives (PHEL) Courses. ..... 396
Pharmacy Experiential Programs (PHEP) Courses ..... 398
Pharmacy Practice (PHPR) Courses ..... 399
Pharmacy, School of ..... 289
Philosophy ..... 156
Philosophy (PHIL) Courses ..... 399
Physics ..... 160
Physics (PHYS) Courses ..... 401
Placement Tests .....  9
Police, University ..... 56
Policies, University ..... 317
Political Science ..... 167
Political Science (POLS) Courses ..... 404
Pre-Law, Minor ..... 195
Probation ..... 25
Production (PROD) Courses ..... 406
Proficiency Examinations ..... 19
Psychology ..... 244
Psychology (PSYC) Courses ..... 406
Public Administration and Policy Analysis (PAPA) Courses ..... 407
Q
Quantitative Reasoning (QR) Courses ..... 408
R
Radio Station, WSIE ..... 316
Re-admission of Former Students. ..... 13
Reasoning and Argumentation (RA) Courses ..... 408
Recreational and Leisure Activities:Campus Recreation ..... 45
Refunds, Tuition and Fees ..... 16
Registration ..... 15
Reinstatement ..... 38
Religious Observances Act ..... 319
Religious Studies, Minor in ..... 196
Rendleman Hall ..... 322
Repeated Courses. ..... 24
Requirements for Secondary Teacher Licensure ..... 235
Residency Status, Determination of ..... 13
Right to Privacy and Non-Disclosure ..... 317
ROTC. ..... 221
Russian (RUS) Courses ..... 408
S
Scholarships, University ..... 33
School of Business ..... 199
School of Dental Medicine ..... 297
School of Education, Health and Human Behavior ..... 223
School of Engineering ..... 255
School of Nursing ..... 277
School of Pharmacy ..... 289
Science (Earth and Space Science Education) ..... 166
Science Building ..... 322
Science (SCl) Courses ..... 408
Second Baccalaureate Degree ..... 26
Secondary Teacher Licensure ..... 235
Senior Assignment, Assessment and ..... 67
Service Center ..... 53
Services for Students ..... 49
SIUE/SWIC Service Office ..... 311
Social Work ..... 171
Social Work (SOCW) Courses ..... 409
Sociology ..... 177
Sociology (SOC) Courses ..... 410
Sociology and Criminal Justice Studies ..... 174
Southern Illinois University Edwardsville .....  5
Spanish (SPAN) Courses ..... 411
Special Education (SPE) Courses ..... 412
Special Education and Communication Disorders ..... 247
Speech Pathology and Audiology ..... 250
Speech-Language Pathology and Audiology (SPPA) Courses ..... 413
Spiritual Development ..... 46
Statistics (STAT) Courses ..... 414
Student Colloquium ..... 40
Student Development and University Activities ..... 44
Student Fitness Center ..... 322
Student Government ..... 44
Student Leadership Development Program .....  44
Student Opportunities for Academic Results (SOAR) ..... 55
Student Social Conduct, Student Academic Conduct, Student Grievance ..... 319
Student Success Center ..... 52, 322
Students' Advocate ..... 46
Study Abroad ..... 42
Study Abroad (SAB) Courses ..... 415
T
Testing Services ..... 43
Theater and Dance ..... 180
Theater (THEA) Courses ..... 415
Transcripts ..... 24
Transfer Admission ..... 9
Transfer Credit ..... 19
Tutorial Assistance, Instructional and ..... 43
U
Undergraduate Research and Creative Activities ..... 41
University Center Board ..... 46
University (UNIV) Course ..... 417
University Facilities ..... 321
University Policies ..... 317
Urban Studies, Minor ..... 197
V
VA Educational Benefits ..... 32
Vadalabene Center ..... 322
Values, University .....  5
Veterans Certification ..... 57
Vision, University ..... 5
Visits, Campus ..... 4
W
Web-Based Courses ..... 311
Wellness Activities ..... 46
Withdrawal with Financial Assistance ..... 29
Withdrawing from the University ..... 16
Women's Studies (WMST) Courses ..... 417
Women's Studies, Minor in ..... 197
WSIE Radio Station ..... 316
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[^0]:    * Students pursuing a bachelor of arts degree will complete 8 courses in Fine and Performing Arts or Humanities including one year of the same foreign language.
    ** MATH 150 and PHYS 111 may be substituted for PHYS 131/131L and 132/132L

