



2007-2008 Undergraduate Catalog

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SIUE is 50!

Since 1957, SIUE has grown from 1,776 students to nearly 13,500. Join us as we reflect upon and celebrate the accomplishments of students, faculty, alumni, and community members who have helped make SIUE the premier Metropolitan University we are today. Visit our Web site for 50th Anniversary event details:

www.siue.edu/50

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Accreditation

Southern Illinois University Edwardsville is accredited by The Higher Learning Commission and 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
Accrediting Council on Education in Journalism and Mass Communications
Accreditation Council for Pharmacy Education (Candidate Status)
American Council for Construction Education
American Speech -Language-Hearing Association
American Dental Association

Association to Advance Collegiate Schools of Business — International
Commission on Collegiate Nursing Education
Council on Accreditation of Nurse Anesthesia Educational Programs
Council on Social Work Education
National Association of Schools of Music
National Association of Schools of Public Affairs and Administration
National Council for Accreditation of Teacher Education
National Association of Schools of Theater
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

The course offerings and requirements of the University are continually under examination and revision. This catalog presents those in effect at the time of publication. Such offerings and requirements may be changed or revoked. This publication is not a contract or offer to

contract. The Board of Trustees, University executive officers, and their agents reserve the right to change information contained herein without notice. From time to time, changes in courses, curriculum, tuition, fees, or other details may be required.



Welcome to the University

On behalf of our faculty and staff, it is my pleasure to welcome you to Southern Illinois University Edwardsville, also known as The **e**. You have made a great choice! Emphasizing teaching, research, and public service programs, Southern Illinois University Edwardsville is a premier Metropolitan University with nearly 13,500 students enrolled. For the second straight year, *U.S. News and World Report* has named SIUE among 15 of America's Best Colleges for our Senior Assignment Program, an integrative learning experience required of all seniors prior to graduation. SIUE also continues to move up in the *U.S. News* rankings of the top tier master's level universities in the Midwest. Founded in 1957, SIUE is a fully accredited public institution, beautifully situated in Edwardsville on 2,660 acres just 25 miles from St. Louis, awarding degrees in 43 baccalaureate and 64 master's programs encompassing the arts and sciences, nursing, education, business and engineering. The Schools of Dental Medicine and Pharmacy award a post-first professional certificate in Dental Medicine, the D.M.D., and Pharm.D. As you review the following pages, you will find that a significant number of our programs are accredited by their national agencies, ensuring that you are receiving an excellent education in your chosen field.

Since 2000, University faculty, staff and administrators have engaged in an extensive self-study leading to statements of SIUE's, Mission, Vision, Values and Diversity, as well as the University's long-term goals. You will find these documents in the following pages. I hope that you will study them carefully. They serve as guiding and governing principles for Southern Illinois University Edwardsville. As you consider your academic progress at SIUE, please don't forget to build in participation in campus life. There are many student-centered activities and leadership opportunities from which to choose, lending balance and creating the wonderful memories you will have of your college experience. These activities are a significant part of your education and an excellent way to make your mark as a Cougar.

Our faculty and staff are dedicated to your success and to helping you get the most from your time at The **e**. If you have questions or need assistance, all you have to do is ask! We're glad you're here and we look forward to helping you develop your potential. Please accept my very best wishes for your success at SIUE.

Vaughn Vandegrift
Chancellor

Visits and Information

Phone: 1-800-447-SIUE or 618-650-3705

Internet: www.siue.edu

E-mail: admissions@siue.edu

Schedule a Campus Visit

Guided walking tours of the campus are offered Monday through Saturday, throughout the year. All tours are directed by undergraduate STARs (STudents Assisting in - Recruiting).

To schedule a campus tour, go to our Web site at www.siue.edu/prospectivestudents or call us at 1-800-447-SIUE or 618-650-3705. Also, you may e-mail an SIUE STAR online at www.siue.edu/prospectivestudents/STARS.shtml.

Catalogs and Class Schedules

Southern Illinois University Edwardsville publishes annual undergraduate and graduate catalogs and fall, spring and summer class schedules. The undergraduate catalog provides information about academic programs, while class schedules provide information about courses offered each term.

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

Academic Calendar — 2007–2008

Summer 2007

May 21 Summer classes begin
May 28 Memorial Day Holiday
June 2 Weekend classes begin
July 4 Independence Day Holiday
July 30-August 4 Final Exams
August 4 Commencement
Note: No weekend classes May 26-27 and June 30- July 1. Final exams for weekend classes are scheduled for August 4 following the last class session.

Fall 2007

August 20 Fall classes begin
August 25 Weekend classes begin
September 3 Labor Day Holiday
November 19-25 Thanksgiving Day Holiday
December 8-14 Final Exams
December 15 Commencement
Note: No weekend classes September 1-2, October 6-7 and November 24-25 unless otherwise specified. Final exams for weekend classes are scheduled for December 8.

Spring 2008

January 14 Spring classes begin
January 19 Weekend classes begin

January 21 Martin Luther King Day-university closed
March 10-15 Spring Break
May 3-9 Final Exams
May 10 Commencement

Note: No weekend classes February 9-10, March 15-16, and March 22-23 unless otherwise specified. Final exams for weekend classes are scheduled for May 3.

Summer 2008

May 26 Memorial Day Holiday
May 27 Summer classes begin
May 31 Weekend classes begin
July 4 Independence Day Holiday
August 2-8 Final Exams
August 9 Commencement

Note: No weekend classes May 24-25 and July 5-6 unless otherwise specified. Final exams for weekend classes are August 2 following the last class session.

Fall 2008

August 25 Fall classes begin
September 1 Labor Day Holiday
September 6 Weekend Classes
November 24-30 Thanksgiving Break Holiday
December 13-19 Final Exams
December 20 Commencement

Note: No weekend classes August 30-31; October 11-12; and November 29-30 unless otherwise specified. Final exams for weekend classes are December 13.

Southern Illinois University

Southern Illinois University is a multi-campus university composed of two institutions, Southern Illinois University Carbondale (SIUC) with a School of Medicine at Springfield, and Southern Illinois University Edwardsville (SIUE), with a School of Dental Medicine at Alton and a Center in East St. Louis. The University, with an annual budget of more than \$701 million, enrolls nearly 35,000 students in programs including two-year technical curricula, two associate's, 124 bachelor's, 116 master's, and 35 doctoral and professional degree programs. SIU was chartered in 1869 as Southern Illinois Normal University, a teachers' college. In 1947, SIU began offering off-campus academic courses in the metropolitan East St. Louis area, which led to the eventual development of a separate institution in Edwardsville.

A modern and comprehensive post-secondary educational institution, Southern Illinois University offers a broad range of academic programs that lead to associate, baccalaureate, master's, specialist, doctoral, and professional degrees.

The instructional, research, and service missions of the two constituent institutions reflect the needs of the geographic areas in which they are located. The University also is committed to serving statewide, national, and international needs. This commitment is reflected in educational activities located off the main campuses in communities throughout the state. It is realized also through research and training exchanges and through worldwide student exchange programs.

A nine-member board of trustees governs Southern Illinois University and sets policy that enables the University to carry out its established missions and goals. The president of Southern Illinois University is its chief executive officer and reports to the Board of Trustees. The University chancellors report directly to the president and are responsible for the internal operation of SIUE and SIUC.

Southern Illinois University Edwardsville

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 counties 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 2½ years of planning, University officials and area residents attended ground-breaking ceremonies for the first permanent buildings.

In the fall of 1965, Southern Illinois University Edwardsville 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 modern 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.

Today, Southern Illinois University Edwardsville is a premier Metropolitan University with nearly 13,500 students enrolled. For the second straight year, *U.S. News and World Report* has named SIUE among 15 of America's Best Colleges for our Senior Assignment Program, an integrative learning experience required of all seniors prior to graduation. SIUE also continues to move up in the *U.S. News* rankings of the top tier master's level universities in the Midwest and was recently recognized by the American Association of Colleges & Universities as one of 16 examples nationwide of what institutions of higher learning must do to ensure a better future for our students. SIUE is a fully accredited public institution located just 25 miles from St. Louis and now featured among the top 150 Illinois Great Places by the American Institute of Architects Illinois Council. The University awards degrees in 43 baccalaureate and 64 master's programs encompassing the arts and sciences, nursing, education, business, and engineering. The Schools of Dental Medicine and Pharmacy award a post-first professional certificate in Dental Medicine, the D.M.D., and Pharm.D. The main campus also includes University Park, a research park established for economic development. The Edwardsville campus is also 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.

At SIUE, we believe 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 the fine swimming, biking and other recreation make SIUE an exciting place. In addition, the campus is situated in a rural area with access to the resources of the metropolitan St. Louis area, located just 20 minutes away.

At SIUE, more than 700 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-two percent of the faculty possess terminal degrees earned at universities in the United States and abroad. In 2006, the faculty received 273 grants or contracts totaling \$20.6 million. The University also emphasizes the instructional responsibilities of the faculty. A [listing of the faculty](#) is included in this catalog.

SIUE offers a broad range of quality educational experiences at affordable tuition rates, an architecturally distinguished campus, the tranquility of rural life, and access to the excitement of a major American city. All of these factors contribute to the quality of educational opportunities at SIUE and make student experiences here everything education should be.

Location

Southern Illinois University Edwardsville 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 13,500 students, Southern Illinois University Edwardsville is large enough to provide for the educational needs of its students, yet sufficiently small to impart a personal approach. 42.5% percent of the students come from Madison and St. Clair counties in Illinois, 6.5% percent from Missouri. The remainder come from almost every other county in Illinois, 42 other states, and 46 nations. Minority students account for 12.4 percent of the total 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-three 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 Honor Society of Phi Kappa Phi, and special recognition of outstanding students at the annual Honors Day Convocation. For more information, please refer to the [Academic Recognition](#) section of this catalog.

University Mission

Southern Illinois University Edwardsville is a public comprehensive university dedicated to the communication, expansion and integration of knowledge through excellent undergraduate education as its first priority and complementary excellent graduate and professional academic programs; through the scholarly, creative and research activity of its faculty, staff and students; and through public service and cultural and arts programming in its region.

University Vision

Southern Illinois University Edwardsville, as a premier Metropolitan University, will be recognized nationally for the excellence of its programs and development of professional and community leaders.

University Values

Recognizing public education as the cornerstone of a democracy, SIUE carries out 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 faculty, staff, students and the larger community
- Environmental stewardship

Excellence

- High-quality student learning
- Continuous improvement and innovation
- Outstanding scholarship and public service
- Standards consonant with the premier status to which we aspire

Integrity

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

Openness

- Inclusion of the rich diversity of humankind in all aspects of University life
- Respect for individual differences
- Intellectual freedom and diversity of thought
- Access for all who can benefit from our programs

Wisdom

- Creation, preservation, and sharing of knowledge
- Application of knowledge in a manner that promotes the common good
- Life-long learning

Statement on Diversity

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. SIUE nurtures an open, harmonious, and hospitable climate that facilitates learning and work. Each member of the University is responsible for contributing to such a campus environment.

SIUE 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, SIUE strives for a student body and a workforce that manifests diversity.

Achieving the Vision: SIUE's Long-Term Goals

The primary focus of SIUE's long-term goals is student learning. Achieving the following goals will help students

become life-long learners and effective leaders in their professions and communities:

Engaged Students and Capable Graduates — Attract a diverse student body including traditional, non-traditional, commuter, and residential scholars and nurture, educate, and graduate students who achieve the objectives for baccalaureate, graduate, and professional degrees.

Innovative, High-Quality Programs — Develop, deliver, and continually improve high-quality academic programs appropriate for a metropolitan university.

Committed Faculty and Staff — Recruit and support a diverse faculty and staff known for providing the highest quality educational opportunity, scholarship, and service.

Harmonious Campus Climate — Foster a harmonious student-centered campus characterized by integrity, cooperation, open dialogue, and mutual respect among individuals with different backgrounds, cultures, and perspectives.

Active Community Engagement — Achieve an integral and indispensable relationship with Illinois and the St. Louis metropolitan area; work cooperatively within SIU to make the whole greater than the sum of its parts.

Sound Physical and Financial Assets — Develop, maintain, and protect the University's assets in a financially, aesthetically, and environmentally responsible manner.

Excellent Reputation — Participate and excel in actions that earn national recognition for quality.

Admission to the University

The University offers educational opportunities to many students. Definitions of admission categories are provided in this section, along with admission criteria and procedures. Counselors within the Office of Admissions (Rendleman Hall, room 2120) 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 will 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 should consult the section on international admissions for 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 2008:

2007 Fall Semester

New freshmen — Priority Deadline: December 1, 2006;
Final Deadline: May 1, 2007
All other students — July 20, 2007

2008 Spring Semester

New freshmen — Priority Deadline: October 1, 2007;
Final Deadline: November 1, 2007
All other students — December 12, 2007

2008 Summer Session

New freshmen — Priority Deadline: March 1, 2008;
Final Deadline: April 1, 2008
All other students — April 25, 2008

2008 Fall Semester

New freshmen — Priority Deadline: December 1, 2007;
Final Deadline: May 1, 2008
All other students — July 25, 2008

2009 Spring Session

New freshmen — Priority Deadline: October 1, 2008;
Final Deadline: November 1, 2008
All other students — December 12, 2008

2009 Summer Semester

New freshmen — Priority Deadline: March 1, 2009;
Final Deadline: April 1, 2009
All other students — April 24, 2009

2009 Fall Semester

New freshmen — Priority Deadline: December 1, 2008;
Final Deadline: May 1, 2009
All other students — July 24, 2009

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 www.siue.edu 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 www.siue.edu. You may obtain a paper admission application from your high school or college counselor or request one online at www.siue.edu/prospectivestudents.

- A 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 6-semesters of course work. A final transcript reflecting all high school course work and graduation verification must also 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.

- B 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.
- C 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 Service Center, Box 1047, Edwardsville, Illinois 62026-1047, by the office or institution that issues the document. Faxed documents are not considered official.

Freshmen Admission

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 will not be considered for admission.

For a complete list of freshman admission criteria, please refer to www.siu.edu/POLICIES/1e1.html.

Early Admission

Capable high school students will be permitted to enroll as degree-seeking 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 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:

1. remedy any English, mathematics or reading deficiencies as indicated by SIUE placement tests, and
2. complete at least one, 3-semester-hour course in each of the following areas:
 - a) science,
 - b) social sciences, and
 - c) foreign language, music, art, theater, dance, or speech.

Courses must be selected from Introductory and distribution general education courses numbered below 300. These courses must be completed with a passing grade or achieve a minimum grade of C on a proficiency 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 a complete list of transfer admission criteria, please refer to www.siu.edu/POLICIES/1e1.html.

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.

- A. 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 2.0 (C) grade point average in such course work at the previous accredited school(s) attended.
- B. The admission criteria for students who have attempted fewer than 30 semester hours in courses at accredited institutions are as follows:
 1. 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 of the appropriate admission category for entering freshmen.
 2. 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 of the appropriate admission category for entering freshmen.

3. All transfer students who have attempted fewer than 30 semester hours also must meet the high school course requirements as described under the appropriate freshman category.

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, et cetera), but the only grade point average calculated will be 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 directly to the Office of Admissions by each institution. All transcripts become the official property of the University and will not be returned or issued to another institution.) Any questions about the acceptability of specific courses for admission and/or for transfer credit should be directed to the Office of Admissions.

SIUE participates in the Illinois Articulation Initiative. More information is available online at www.siue.edu.

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

Students applying for admission in any of the following categories will be admitted through the Office of Admissions. Inquiries should be directed to the Office of Admissions at intladm@siue.edu. Additional information is available online at www.siue.edu.

Students Holding or Requiring F-1 (Student) Visas

Applicants 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 NAFAA: Association of International Educators will be used as guidelines to evaluate foreign academic credentials for academic eligibility, level of placement, and acceptability of transfer credit. In individual cases, appropriate faculty will be consulted for clarification of student credentials.

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 proof of adequate financial resources to the Office of Admissions in advance of admission. A financial certificate and instructions for its completion are included in the application packet. Financial arrangements must be approved by the appropriate deadline below. Questions regarding 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:

Term	Out-of-Country Deadline	In-Country Deadline
Fall	June 1	July 15
Spring	October 1	November 15
Summer	March 1	April 15

Health Insurance Requirement

In support of the Immigration requirements for F-1 and J-1 visa holders, Southern Illinois University Edwardsville (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. Ultimately these students can be dropped from their classes, thus jeopardizing their visa status.

Regulations (22.C.F.R. § 62.14) state that 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 J-1 and F-1 students. No exceptions will be made.

All exchange students (both J-1 and 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 Health Service.

A representative from Health Service will be scheduled to speak to the international students during their Orientation Week, which precedes the start of each semester, to inform students about the insurance policy requirements and procedure. Information will include which insurance policies are acceptable for J1 students, the procedure for obtaining insurance for F1 students, how to show compliance, and penalties for non-compliance.

A hold will be placed on registration of international students until proof of medical health insurance has been provided for the semester. Holds will not be lifted for any reason, including add/drop of classes. By the first day of the semester, international students who do not provide proof of medical health insurance will be dropped from their classes. The class cancellation list will be compiled and sent to the Dean of Students, the Assistant Vice Chancellor for Enrollment Management, the Director of the Career Development Center, and the Director of International Student Services.

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, and acceptability of transfer credit.

Applicants are responsible for making all appropriate arrangements for providing official academic records attesting to all secondary and post-secondary education. Credentials not available in English must be submitted with an original and an attested translation prepared by a professional translator. 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 mailed directly to the Office of Admissions by the registrar or principal of each school attended. 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. Original educational documents not issued in confidence to the University will be returned upon request. 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 www.siue.edu. Materials will be mailed upon request. F-1 applicants must complete their admission application file by the deadline stated in the section on "Students Holding or Requiring F-Visas." Other applicants for spring or summer must complete their admission application file no later than the published deadline.

Applicants Whose First Language is Not English

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

1. Applicants may sit for either the International Testing Program 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.
2. Applicants may sit for an institutional TOEFL examination administered on at SIUE. Institutional TOEFL scores will not be accepted from other institutions. The minimum acceptable score is 550.
3. Applicants may submit a properly certified copy of their General Certificate of Education administered by a British Testing Agency showing a grade of A, B, or C in the subject English Language. Recognized equivalent examinations also will be considered.
4. Applicants may submit academic records certifying that they have graduated from a recognized secondary school, college or university where English is the exclusive language of instruction and is which is located in an English-speaking country.
5. Applicants may submit academic records certifying that they have completed courses totaling at least 6 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.
6. Applicants may sit for University-administered 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 for admission as visiting students by the Director of Admissions.

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 post-secondary 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 degree-seeking 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.

Readmission of Former Students

(Undergraduate)

Former students who have not attended SIUE for one calendar year (i.e., registered and paid fees) must apply for readmission.

Readmission criteria for former students are:

1. 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 were previously 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.
2. 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 adviser.
3. 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 2.0 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 last term of enrollment) **and have:**

- successfully completed 30 baccalaureate-oriented 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

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

Definitions and Conditions

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

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

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

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

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

Students who are not citizens of the United States of America, to be considered residents for tuition purposes, must either be married to residents or have permanent resident status with the United States Immigration and

Naturalization Service, and must comply with all other applicable regulations to establish resident status. Students considered residents for tuition purposes may need to meet additional criteria in order to be eligible for federal student financial assistance.

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

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

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

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

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

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

A student seeking reclassification from non-resident to resident status is liable for the tuition and fees assessed, but, if granted, the change of residency and any tuition change shall apply for the term in which reclassification occurs. In the case of a student classified as a resident

who is reclassified as a non-resident, the change to nonresident status and adjustment of tuition shall apply for the term following the reclassification. If the University has classified a student as a resident on the basis of false or falsified documents furnished by the student, the reclassification to non-resident status shall be retroactive to the first term during which residence status was based on these incorrect documents. The student also may be subject to sanctions under student conduct guidelines.

Appeal of Residency Review Decisions

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

Registration

Registration is generally available to students by March 15 for Summer and Fall terms and by October 15 for the Spring term. Specific registration schedules are published on the Registrar's web site at www.siue.edu/registrar. Online registration is available to students through CougarNet at www.siue.edu/COUGARNET beginning as follows:

Week one	*Undergraduate students with at least 90 earned hours, honors scholars, students with disabilities and athletes.
Week two	*Students with 60-89 earned hours.
Week three	*Students with 30-59 earned hours.
Week four	All remaining students

*New freshman will enroll during scheduled Springboard to Success sessions offered through the Office of Admissions.

All students, with the exception of visiting students, must meet with an academic advisor prior to 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 pre-requisites and class restrictions have been satisfied prior to enrollment. Pre-requisites 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 adviser
- 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 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.

Changes in Registration

Students may make changes to your 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 prior to 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 are officially 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 that class pre-requisites 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 course request form (CRF) 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 will generally be given on the add/drop 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, the approval of the department chair and advisor is also needed to add a class. The only classes which may be added after the second week are those which 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 find it necessary to drop a class 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 class 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. Grade of “W” is automatically assigned.

Weeks 11–13 — Students may drop a class only with approval of the instructor and advisor; 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. Grade of “W” is automatically assigned.

Weeks 6–8 — Students may drop a class only with approval of the instructor and advisor; 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 Web site, www.siu.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 find it necessary 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. Inquiries regarding withdrawal deadlines should be directed to the Service Center. A 100% refund of tuition and fees (with the exception of 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

All withdrawals must generally 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. Inquiries regarding withdrawal deadlines should be directed to the Service Center or the Office of Continuing Education as noted above.

A 100% 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% 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% 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, they 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 will automatically 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 web site at www.siu.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. It is your 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. Failure to complete a program change or withdrawal form within the University deadline may result in your being assigned a failing grade and remaining liable for full tuition and fees.

Academic Load

The normal academic load for students is 16 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 12 hours for summer term; the maximum summer load is 15.

Students on scholastic probation may not take more than 12 hours without approval of the adviser. Students employed full-time should not register for more than six hours.

Students who carry 12 or more hours per semester 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, University-sponsored 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 adviser in Academic Counseling and 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.

A transfer student who has an associate of arts or associate of science degree, and has met the prerequisites for the intended major at SIUE will be accepted to the major program of study upon admission to the University.

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 adviser 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 adviser 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 (Peck Hall 1404) maintains a list of those courses for which out-of-class proficiency examinations are regularly available and provides information pertaining to those exams.

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:

1. 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;
2. 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 A, 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:

Art and Design

- Students scoring 4 or 5 on the AP Art History exam will receive 3 hours credit for ART 111.
- Students scoring 4 or 5 on the AP Drawing, 2-D Design, or 3-D Design Portfolio may arrange to bring their complete portfolio/s to the Art and Design Department for faculty review. If the review is favorable, students may receive 3 hours credit for ART 112a for the Drawing Portfolio, 3 hours credit for ART 112b for the 2-D Design Portfolio and/or 3 hours credit for ART 112d for the 3-D Design Portfolio.

Biological Sciences

With a score of 4 or 5 on the advanced placement test, students may earn 3 hours credit for BIOL 111.

Calculus

- Students scoring 3, 4 or 5 on the AP Calculus AB exam will receive 5 hours credit for MATH 150.
- Students scoring 3, 4 or 5 on the AP Calculus BC exam will receive 10 hours of credit for both MATH 150 and MATH 152.
- Students scoring 3, 4 or 5 on the AP Calculus AB subpart of the Calculus BC exam will receive 5 hours of credit for MATH 150.

Chemistry

With a score of 4 or 5 on the advanced placement test, students may earn 8 hours credit for CHEM 121a and b. With a score of 3, students may earn 4 hours credit for CHEM 121a. Students may petition the Chemistry Department for laboratory credit.

Economics

With a score of 4 or 5 on the Macroeconomics Advanced Placement Program test, students may earn 3 hours credit for ECON 111. With a score of 4 or 5 on the Microeconomics Advanced Placement Program test, students may earn 3 hours credit for ECON 112.

English

With a score of 4 or 5 on the English Language and Composition Advanced Placement Program test, students may receive 3 hours credit for ENG 101. With a score of 4 or 5 on the English Literature and Composition test, students may receive 3 hours credit for ENG 111.

Foreign Languages and Literature

The Department of Foreign Languages and Literature awards Advanced Placement credit on an ad hoc basis. For details, please contact the department directly.

Geography

Students scoring 4 or 5 on the AP Geography exam will receive 3 hours credit for GEOG 111.

History

With a score of 4 or 5 on the AP European History Advanced Placement test, students may earn 3 hours credit for HIST 111a or b, or 3 hours credit for HIST 113 or 114. With a score of 4 or 5 on the AP American History test, students may earn 3 hours credit for HIST 200 or 201.

Music

With a score of 3, 4 or 5 on the Music Theory or the Music Listening and Literature AP tests, students may earn 3 hours of credit for MUS 111.

Physics

- With a score of 4 or 5 on the AP Physics B test, students may earn 10 hours of credit for Physics 206a and b.
- With a score of 4 or 5 on the Physics C test, Mechanics section, students may earn 4 hours of credit for Physics 211a.
- With a score of 4 or 5 on the Physics C test, Electricity and Magnetism section, students may earn 4 hours of credit for Physics 211b.

Political Science

- Students scoring 4 or 5 on the AP United States Government and Politics exam will receive 3 hours credit for POLS 112
- Students scoring 4 or 5 on the AP Comparative Government and Politics exam will receive 3 hours of credit in the comparative politics subfield.

Psychology

With a score of 3, 4 or 5 on the Psychology Advanced Placement test, a student may receive credit for PSYC 111.

Statistics

- Students scoring 3, 4 or 5 on the AP Statistics exam will receive 4 hours credit for STAT 244.

Students should send the results of advanced placement examinations to the Office of the Registrar. Credit earned through Advanced Placement examinations may be applied toward the 124 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:

1. 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](#).
2. Credit will be awarded for a CLEP subject examination when approved by the SIUE department offering a comparable course.
3. Test credit will not be allowed when students previously have received credit for comparable courses or when currently enrolled in a comparable course.
4. 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.
5. When approved, credit will normally be awarded for subject examinations on the basis of the number of credit hours in the pertinent courses.
6. Biological sciences, chemistry, computer science, mathematics and statistics, and physics majors at SIUE will not be awarded CLEP credit after credit has been earned for more advanced work in the subject.

CLEP exams are available by computer only. For information on CLEP test credit and minimum required

scores, please call Testing Services at 618-650-2295 or follow the link to CLEP on the testing Web page at www.siu.edu/IS/TEST. Persons who wish to apply for credit through SIUE should have the results sent to the Office of the Registrar.

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. Those who have served six months or more of active duty may receive an additional 2 hours of credit for military studies. Students must have received an honorable discharge to receive military experience credit.

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 credit for military services experience and work done in military service is done by in The Office of the Registrar, Rendleman Hall, Room 1207.

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.

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

NC No Credit — used for courses taken under Pass/No Credit option; no credit hours earned

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

WR Withdrawal by Registrar

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:

1. 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)
PR = Progress (0 Points)
P = Pass (0 Points)
NC = No Credit (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)
2. 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.
3. The quality hours column is totaled.
4. The quality points column is totaled.
5. Total quality points are divided by the total quality hours. Grade point averages are rounded to the third decimal.

Example

Courses	Quality Hours		Grades		Quality Points
AD 075A	0	x	P (0)	=	0.0
AD 090A	0	x	NC(0)	=	0.0
BIOL 111	3	x	A (4)	=	12.0
SPC 103	3	x	F (0)	=	0.0
THEA 141	3	x	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).

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 adviser. 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

You may request official copies of your SIUE academic record, provided you have fulfilled all financial obligations to the University, by contacting the Service Center. Unofficial copies are available on CougarNet.

Transcripts are released only with your written consent. Telephone and electronic mail requests for transcripts cannot be honored, but faxed requests bearing your signature are acceptable. The fee for official transcripts is \$5 each.

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 written 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 Counseling and 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 suspended, you will be ineligible to attend SIUE for at least 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 Counseling and Advising. You and your advisor in Academic Counseling and Advising must reach agreement upon a plan of action. The Suspension Appeals Committee is administered by Academic Counseling and 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 the seventh Thursday of the term immediately prior to your intended re-instatement term.

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 shall 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:

1. reduction in number of credit hours attempted;
2. change in academic major;
3. enrollment in courses prescribed by the advisor, e.g., writing, reading, study skills;
4. enrollment in courses in which you previously received a failing grade;
5. career counseling;
6. more frequent meetings with advisor;
7. 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).

Honors Convocation, held each spring, recognizes students who have been selected by faculty and staff to receive Honors Convocation awards. To be eligible for Honors Convocation awards, students must have passed 16 hours at SIUE. Courses taken on a Pass/No Credit basis will not apply.

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 degree-seeking students or, subject to the approval of an academic adviser, may elect the requirements that appear in a succeeding catalog. This policy is subject to the following:

1. 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.
2. 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 124 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 in the Service Center at the beginning of their senior year.

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 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 adviser has certified that you will complete degree requirements by the end of the term in which you have applied for graduation. 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 \$35 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.

Bachelor of Arts Foreign Language Requirement

In addition to the University's general requirements for a bachelor's degree, students working toward a bachelor of arts degree must demonstrate, either by examination or by university courses, proficiency in a foreign language equivalent to a year of university-level work. Some academic units may require more than one year of study in a foreign language. Waiver of the foreign language requirement of skills option B of the general education program for students who transferred to SIUE with an associate of arts or associate of science degree from an accredited two-year institution in Illinois does not constitute a waiver of the bachelor of arts degree foreign language requirement.

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 Information

Financial Aid Services

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

- general information by phone or in person;
- one-on-one advising on a walk-in basis;
- review for special circumstances (e.g. death of wage earner, divorce);
- web sites at www.siue.edu/financialaid/ (financial aid) and www.siue.edu/studentemployment/ (student employment);
- online Student Job Finder at www.siue.edu/studentemployment/;
- online record of required documents and awards offered/paid at www.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
- 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, or ERTC or teacher certification;
- be enrolled for at least six hours each semester;
- demonstrate financial need;
- maintain satisfactory academic progress; and

- owe no refund on a federal grant nor be in default on a federal student loan.

Note: Most international students do not meet citizenship requirements for financial aid programs administered by Student Financial Aid. International students should contact the International Student Services office 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) by March 1 each year to be considered for all programs and list SIUE (code 001759) to receive the processed information. If you apply after March 1, you will find that funds in some programs are no longer available. In addition, students who apply after March 1 should be prepared to make their first fall tuition payment (usually due at the beginning of August) in order to prevent being dropped from their classes. Due to the high volume of financial aid applications, students who file after March 1 may not have their financial aid available to make that first fall payment. The application may be submitted online at www.fafsa.ed.gov.

If you have not previously submitted an application for federal student aid, you will submit the regular FAFSA. If you are a previous applicant, you may apply with a renewal FAFSA.

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). Although online applications are preferred, paper applications are available through high schools, public libraries, Educational Opportunity centers, and the Office of Student Financial Aid.

Definition of Independent Student

For federal and State of Illinois programs, you are considered independent for 2007-08 if at least one of the following criteria describes you:

- born before January 1, 1984;
- married as of the date of filing;
- a veteran of the U.S. armed forces or on active duty;
- enrolled in a graduate or professional program;
- an orphan or ward of the court (or were a ward of the court until age 18);

- have legal dependents other than a spouse.

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, living and personal expenses.
- After receiving the FAFSA analysis, Student Financial Aid determines an estimated family contribution which reflects family income and assets as well as other resources (private scholarships, Social Security educational benefits, or veterans benefits).
- The family contribution is subtracted from the school year budget assigned to you. The remaining amount is your financial need and is the maximum amount you can receive from all financial aid programs, except the Federal Direct 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 a loan. Students who submit the FAFSA by March 1 will be considered for all programs.
- In the awarding of University-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 receive aid.

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. 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 bill;
- Register for at least half time each semester (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;
- Immediately submit the award letter to Financial Aid;
- If appropriate, go online to complete loan counseling and the Electronic Master Promissory Note (EMPN) ;
- Have adequate financial aid to cover the new charges for the term and any balance due from a prior term;
- Have no “holds” on your records in Student Financial Aid, Records, Office of the Bursar or Vice Chancellor for Student Affairs (e.g. satisfactory progress termination, bad check, disciplinary hold).

In most cases, students who apply for financial aid early (e.g. by the preferred filing date of March 1), accept their financial aid awards by mid-June, and register for classes before mid-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), to cover 100% 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 to use University 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 find it necessary to fully withdraw from classes for the term must initiate the withdrawal process in the Service Center.

Withdrawal during the refund period (the first two weeks of the term) cancels your obligation to pay tuition and fees for the term. However, students who receive Title IV Financial Aid (Pell, SEOG, FFELP 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 notified by the Financial Aid Office of any award changes and instructed to view their balance owed to the University on CougarNet.

Grants

Grants are normally awarded to students with significant financial need in combination with work and loans as part of the financial aid package. The federal Pell and Supplemental Educational Opportunity Grants, as well as the Student to Student Grant, are awarded on the basis of information provided on the FAFSA. To receive federal, Illinois, or institutional grant assistance, a student must not be in default on any student loan nor owe a refund on any state or federal grant.

Federal Pell Grant

This federally sponsored program aids eligible undergraduate students in meeting 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.

Awards range from \$400 to \$4,310 per academic year. Most students use their full Pell Grant entitlement during the academic year (fall and spring). However, students who do not attend full time during each term may have remaining eligibility for a summer Pell Grant.

Federal Supplemental Educational Opportunity Grant

The Federal Supplemental Educational Opportunity Grant program assists students with exceptional 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 range from \$200 to \$2,200.

Illinois Bonus Incentive Grant

Holders of Illinois College Savings Bonds for at least 12 months may be eligible for a non-need based 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 may be obtained from the Illinois Student Assistance Commission at www.CollegeZone.com.

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 apply on the FAFSA before the MAP deadline and list SIUE as their first choice institution.

Illinois Incentive for Access Program

The Illinois Incentive for Access Program provides a one-time grant of up to \$500 for freshmen who have no expected family contribution, based on information reported on the FAFSA. An applicant must be enrolled at least half time, be a U.S. citizen or an eligible non-citizen as defined in the FAFSA, have a valid Student Aid Report with no expected family contribution, be a resident of Illinois, not have a baccalaureate degree, and meet the University's satisfactory academic progress standards and MAP eligibility requirements.

Illinois National Guard Program

Members of the Illinois National Guard are eligible to receive a grant for payment of tuition and some fees for undergraduate or graduate study 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 may be printed from the ISAC Web site at www.CollegeZone.com. 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, 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, were honorably discharged, and meet the IVG residency requirement.

Any veteran who resided in Illinois within six months before entering the service, and returned to Illinois within six months of discharge from the service, may be eligible.

Applications are available at www.CollegeZone.com.

Other Illinois Grants

Grants also are available to spouses and children of Illinois police or fire officers killed or at least 90% disabled in the line of duty, and to spouses and children of State of Illinois Department of Corrections officers killed or at least 90% 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 are

available at www.CollegeZone.com.

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 Stafford Loans (Subsidized and Unsubsidized)

Federal Stafford Loans first disbursed on or after July 1, 2006 retain a fixed interest rate of 6.8 percent.

Federal Subsidized Stafford Loans

Subsidized Federal Loans are low-interest loans made to students attending at least half time. 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 accrue until six months after graduation, termination of studies, or a drop below half-time enrollment.

Undergraduates may borrow \$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 that are 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 adviser to determine how much they can borrow. Independent undergraduates may borrow an additional \$4,000-\$5,000/year of unsubsidized loan (see below). Most students are limited to borrowing their annual maximum across three terms (fall, spring, summer).

Federal 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. 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 interest rate is the same as a the Federal Stafford Subsidized Loan.

Unsubsidized loans are offered as part of the financial aid package to students who do not have financial need. Students with financial need are not normally offered unsubsidized loans in their aid packages, but may request consideration for unsubsidized loans in addition to other financial aid awards.

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 the University) minus any estimated financial aid the son or daughter may be receiving. The interest rate is fixed at 8.02 percent. Parents begin repaying these loans 60 days after the final loan disbursement. Under certain conditions, a deferment or postponement of repayment can be granted. Parents should contact their lender to request a deferment form.

Choosing A Lender

We have a list of commonly used lenders on our web site at www.siue.edu/financialaid. These lenders were chosen for their good service to our students and their great repayment benefits. We will, however, process any loan application from any lender the student chooses; students and parents are ALWAYS allowed to choose their own lender.

Federal Perkins Loan

A Federal Perkins Loan is awarded based on financial need and is normally repaid after graduation at low interest (5 percent). At SIUE, first preference is given to 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 \$5,000 each year of graduate or professional study, but cannot exceed

\$30,000 of loan debt for undergraduate and graduate study combined. Perkins Loan funds are extremely limited, thus funds are normally reserved for students in high cost programs (i.e. Dental students).

VA Educational Benefits

SIUE is approved by the State Approving Agency for Veterans Education. Veterans who qualify for the Illinois Veterans Grant 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 Credit (NC), Audit (AU), and Progress (PR). However, under certain mitigating circumstances, the VA may authorize payment of VA benefits for these grades. Non-degree-seeking 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 Administration Regional Office or the University's Veterans Certification Section in 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, i.e., marriage certificate and/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 Administration 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 non-traditional 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 receiving VA benefits who finds it necessary either to drop a class or to withdraw from the University must indicate on the program or withdrawal form the last date of attendance.

A student who withdraws or leaves the University 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 there are many challenging positions that 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 federal (or state) minimum wage and receive increases as total accumulated hours increase. Available jobs are listed online in the Student Job Finder at www.siu.edu/studentemployment. Students apply for jobs via the Internet.

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 or loans.

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 www.siu.edu/studentemployment.

University Scholarships

University funds provide scholarships that are awarded to students with good academic records and, sometimes, financial need. Visit our Web site at www.siu.edu/financialaid to print scholarship applications, or contact Student Financial Aid to obtain more information. Scholarships, like grants, need not be repaid.

Chancellor's Scholars Program

- New freshman undergraduates only
- Admission to the university by December 1 required
- Deadline for application: December 1
- Request or print application at www.siu.edu/financialaid
- Value: in-state tuition, fees, on-campus room and board for eight semesters
- Selection based on academic record, leadership qualities and interview
- Minimum of 27 ACT and upper 10% rank
- Mean — 2007–08 freshmen: 30 ACT, upper 3% rank
- Admission to Honors Scholars Program, Undergraduate Research Academy projects and other academic opportunities.

Presidential Scholars Program

- New freshman undergraduates from Illinois high schools only
- Admission to the university by December 1 required
- Deadline for application: December 1
- Request or print application at www.siu.edu/financialaid
- 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 29 ACT and 3.75 high school GPA
- Mean — 2007–08 freshmen: 32 ACT, upper 1% rank
- Admission to the Honors Scholars Program, Undergraduate Research Academy projects and other academic opportunities

Provost's Scholarships

- New freshman undergraduates
- Admission to the university by December 1 required
- Deadline for application: December 1
- Request or print application at www.siu.edu/financialaid
- Value: varies
- Minimum — 27 ACT, upper 10% rank
- Mean — 2007–08: 29 ACT, upper 5% rank
- Selection based on academic record, leadership

qualities and interview

Phi Theta Kappa Scholarships

- New Transfer Undergraduates who are Phi Theta Kappa members and have earned an associate degree from an Illinois Community College
- University and Foundation Scholarship Application by March 1 required
- Request or print application at www.siu.edu/financialaid
- Value: in-state tuition for up to four semesters
- Mean — 2007–08: 4.0 transfer credit GPA

Tuition Scholarships for Fine Arts Students

- New freshman, transfer, and continuing undergraduates
- Admission by December 1 preferred for new students
- Partial to full Illinois resident tuition
- Awards based on demonstrated talent
- Selection by faculty of Departments of Art, Music, and Theater/Dance
- Contact appropriate academic department for full information

SIUE University/Foundation Scholarships

Undergraduate students may compete for various scholarships provided by the University or donor gifts to the SIUE Foundation by filing a University and Foundation Scholarship Application by March 1 prior to the year in which the award is given. The application is available online at www.siu.edu/financialaid, may be requested by e-mail 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 one-year, \$1,000 scholarship to current student with a 3.00 cumulative grade point average, first preference to those from the Chicago area. Student must have demonstrated civic leadership in community service or housing activities.
- Bessie May Briggs Mason Scholarship — Four-year scholarship awarded to worthy Alton High School graduates with financial need and a desire to obtain a degree in the field of primary or secondary education or a teaching certificate.
- Federally Employed Women — Mary E. McGregor Memorial Scholarship — Awarded to members of the

FEW or federal civilian or military employees of Scott Air Force Base or family member enrolled as an undergraduate at SIUE. Cumulative grade point average should be at least 2.50.

- **Martha Huckelberry Scholarship** — Awarded to a single parent who demonstrates academic merit and who has financial need.
- **Leo and Hilda Kolb Memorial Scholarship** — Awarded to worthy students with financial need who are residents of Madison County, Illinois, with preference given to applicants from Marine Township.
- **Arthur and Dorothy Metz Scholarship** — Awarded to Dupu High School graduates entering SIUE; graduates of Valmeyer High School may be considered.
- **James M. and Aune P. Nelson Minority Student Grant** — Awarded to minority graduates of Alton secondary schools who have at least a 2.0 cumulative grade point average on a 4.0 scale in high school or a 2.50 in college.
- **Phi Theta Kappa Scholarship** — Awarded to new transfer undergraduates who are members of PTK with an associate's degree from an Illinois community college.
- **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, Illinois.
- **Maurice and Catherine Sessel Alton Student Grant** — Awarded to graduates of Alton secondary schools who have at least a 2.50 cumulative grade point average on a 4.0 scale in high school or college.
- **Thelma Thompson Memorial Scholarship/Grant** — Awarded to a single parent with financial need.

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 www.CollegeZone.com. The number of scholarships, as well as the 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, non-renewable 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.

Minority Teachers of Illinois Scholarship

Students who are planning to become preschool, elementary or secondary school teachers and are 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 that are outlined 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. To apply, 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 within the Student Zone. 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 individuals who are unable to apply electronically and receive ISAC approval for an alternate means of applying, the application received date will be based upon the U.S. Postal Service postmark date.

Illinois Future Teacher Corps (IFTC) Program (formerly David A. Debolt Teacher Shortage Scholarship)

Students who are planning to be preschool, elementary or secondary school teachers in Illinois may be eligible for the Illinois Future Teacher Corps (IFTC) Program (formerly the David A. DeBolt Teacher Shortage Scholarship Program). This program is generally for academically talented and financially needy students who are enrolled as juniors or above, with a priority given to individuals pursuing a teacher shortage discipline and/or making a commitment to teach at a hard to staff school, and minority students. This award is designated for tuition, fees and room and board charges, or commuter allowance, if applicable. The annual scholarship awarded to a qualified applicant may be \$5,000 or \$10,000 (and, in some cases, may be increased an additional \$5,000) depending on the teaching commitment made. As part of the application process, the applicant must agree to the terms and conditions that are outlined in the application's Teaching Agreement/Promissory Note. By receiving this scholarship, the individual 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, the Teacher Education Scholarship Programs application, which must be submitted each academic year in order to apply for the Illinois Future Teachers Corps (IFTC) Scholarship program, is available online as an interactive application within the Student Zone. 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 individuals who are unable to apply electronically and receive ISAC approval for an alternate means of applying, the application received date will be based upon the U.S. Postal Service postmark date. Applicants must also apply for federal student financial aid (FAFSA) to determine their expected family contribution, which is part of the selection criteria for the scholarship.

Robert C. Byrd Honors Scholarship

Students who received exceptional grades in high school and showed 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.

Illinois Special Education Teacher Waiver Program

Teachers or academically talented students who are 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 individuals 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. 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 do not need to 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 (Illinos 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 take part in the 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 may also nominate themselves. For more information on how to apply, go to www.CollegeZone.com.

General Assembly Scholarships

A student might be able to pay for tuition with the General Assembly Scholarship if he or she is enrolled at an Illinois 4-year, state-supported college and meets the eligibility criteria set by his or her legislative member. Contact the General Assembly member from the student's district for more information. Applications are available from state

representatives or senators in the student's district. Contact the county election board to identify who is the state representative or senator for a particular district.

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 service-connected 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 on scholarships provided by campus organizations, check with their employers or their parents' employers for scholarship opportunities, and go to their local libraries for information.

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 extends to selected state and institutional programs of assistance.

Purpose

The intent of this policy is to

1. ensure that students using financial aid programs are demonstrating responsible use of public funds in pursuit of their educational goals;
2. 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

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

Definitions

1. **Attempted course** — a course that remains on the student's record after the first two weeks of the term.
2. **Completed course/earned credit** — a course in which a grade of A, B, C, D, or P was received. Withdrawals (WP, WF, W and UW), progress grades (PR), no credits, blank grades, incomplete grades (I), audits (AU), and failures (F) are not considered "earned credit" for meeting progress requirements.
3. **Developmental course** — a course with the prefix of "AD" or numbered "OXX" (not 100-level skills courses).
4. **Financial aid** — 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 Loan (subsidized and unsubsidized)
 - Federal PLUS Loan
 - Illinois Monetary Award Program (MAP)
 - Illinois Merit Recognition Scholarship
 - Illinois Paul Douglas Teacher 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)
5. **Financial aid probation** — term in which a student who has been identified as not meeting one or more standards in this policy continues to receive financial aid. At the end of the term of financial aid probation, a student is expected to have improved his or her progress in order to continue receiving financial aid.

6. **Financial aid termination** — a student is no longer eligible to receive financial aid as defined in this policy; normally, this is following an unsuccessful term of probation.
7. **Incomplete** — a grade of 'I' received for an attempted course; no credit until the course is completed.
8. **Maximum timeframe** — 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% of published program length.
9. **Satisfactory Academic Progress/Satisfactory Progress** — completion of courses at a rate that meets the standards defined in this policy.
10. **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 timeframe;
 - complete their developmental and incomplete courses in a timely manner;
 - graduate prior to the maximum timeframe specific to their degree programs;
 - maintain academic standing, usually a specific term and cumulative grade point average, consistent with SIUE academic policy.
1. **Maximum timeframe** — To retain financial aid eligibility, a student must complete his or her degree program within a specified time limit, 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 timeframe, he or she is ineligible for financial aid unless additional time to complete the degree is approved through appeal. Maximum time to degree is 150% of the published program length.

2. **Overall completion rate** — Completion rates reflect the rate at which students earn credit for courses attempted (e.g. a student earning credit for 9 of 12 attempted hours would have a 75% completion rate). A student must complete at least 67% of their attempted hours. The 10th-day class listing is used to determine a student's attempted hours.
3. **Incomplete grades** — Students receiving excessive incomplete or 'I' grades in their courses are not progressing satisfactorily. Consequently, a student who has six or more hours of incomplete in any term or at any time will be placed on financial aid probation for the next term of attendance and expected to complete the courses with 'I' grades by the end of that term. A reduced course load may be recommended during the term of financial aid probation to ensure that both the courses with incomplete grades and new attempted courses can be satisfactorily completed by the close of that term.
4. **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%).
5. **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 who is on academic suspension has not maintained acceptable academic progress. 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 receive financial aid during a term of financial aid probation.

Notification of Financial Aid Probation or Termination

The Office of Student Financial Aid will send a warning letter to any student who is put on financial aid probation, or a termination letter to any student who is no longer eligible for financial aid. The letter will be sent to the student's local address during any term of enrollment and to the permanent residence during term breaks. It is the responsibility of the student to maintain current addresses with the registrar.

Reinstatement

1. **Undergraduate student with more than 160 attempted hours and no degree** — The student must appeal on the appropriate form and provide a graduation plan signed by his or her academic adviser. If the plan is considered reasonable, the student will receive financial aid on probation for one or more terms until the degree is completed.
2. **Student on financial aid probation** — The student may regain eligibility by meeting the completion standard that applies to the student after financial aid probation under this policy, 67% cumulative completion rate.
3. **Student with grade changes** — The student can regain financial aid eligibility by notifying Student Financial Aid of the grade change, including grades posted for incomplete courses.
4. **Student previously suspended** — A student loses financial aid eligibility at the time of suspension from the University and must appeal on the appropriate form to receive approval for a term of financial aid probation if reinstated or readmitted.

Appeals

1. A student who does not meet the undergraduate, graduate, or ERTC overall completion rates specified in this policy will be put on probation for one term following identification of unsatisfactory progress.
2. 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.
3. 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 by the date indicated in the termination letter. 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; the director's decisions may be appealed to the assistant vice chancellor for Enrollment Management; and the assistant vice chancellor's decisions may be appealed

to the provost. The Financial Aid Appeals Committee is a subcommittee of the Financial Aid Advisory Committee, appointed by the provost and vice chancellor for Academic Affairs, and its membership comprises at least three faculty and staff members familiar with University academic policy. The committee considers in a timely manner appeals that are referred to it. The committee normally 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 Plan

SIUE offers an installment plan for payment of tuition, fees and housing charges. All students registered for credit courses are automatically included in this plan, unless they elect to pay the full amount of tuition and fees by the first day of class. For more information about the plan, see the Bursar's Web page at www.siu.edu/BURSAR/pay1.htm.

In-State Off-Campus Tuition and Fees

Off-campus students pay the applicable per hour or block tuition plus an off-campus fee per class. Students registering only for off-campus classes pay no other student fees. For specific tuition and fee information for off-campus classes, contact the coordinator of credit activities in the Office of Continuing Education at (618) 650-3210.

Audited Courses

Students registering for courses on an audit basis are assigned tuition and fees on the same basis as when registering for credit.

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
D.M.D. Doctor of Dental Medicine
M.A. Master of Arts
M.A.T. Master of Arts in Teaching
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.F.P.C. Post First Professional Certificate
P.M.C. Post-master's Certificate
Pharm.D. Doctor of Pharmacy
S.D. Specialist Degree

College of Arts and Sciences

Anthropology B.A., B.S.
Art B.A., B.S., M.F.A.
 Undergraduate Specializations:
 Art Education
 Art History
 Studio
 Graduate Specialization:
 Studio
Art and Design B.F.A.
Art Therapy Counseling M.A., P.B.C.
Biological Sciences B.A., B.S., M.A., M.S.
 Undergraduate Specializations:
 Ecology, Evolution, Environment
 Genetic Engineering
 Integrative Biology
 Medical Science
 Medical Technology
Biotechnology Management M.S.
Chemistry B.A., B.S., M.S.
 Undergraduate Specialization:
 ACS Certified in Biochemistry
 ACS Certified in Chemistry
 Biochemistry
 Medical Science
Criminal Justice Studies B.A., B.S.
Earth and Space Science Education B.S.
Economics B.A., B.S.
English B.A., B.S., M.A.
 American and English Literature P.B.C.
 Teaching English as a Second Language P.B.C.
 Teaching of Writing P.B.C.
 Graduate Specializations:

American and English Literature
Creative Writing
Teaching English as a Second Language
Teaching of Writing
Environmental Sciences M.S.
Foreign Languages and Literature B.A., B.S.
 Undergraduate Specializations:
 French
 German
 Spanish
Geographical Studies M.S.
Geography B.A., B.S.
History B.A., B.S., M.A.
 Museum Studies P.B.C.
Liberal Studies B.L.S.
Mass Communications B.A., B.S., M.S.
 Media Literacy P.B.C.
Mathematical Studies B.A., B.S.
 Undergraduate Specializations:
 Actuarial Science
 Applied Mathematics
 Mathematical Studies
 Statistics
Mathematics M.S.
Music B.A., B.M., M.M.
 Undergraduate Specializations:
 Jazz Performance
 Music Education
 Music History/Literature
 Music Merchandising
 Music Performance
 Music Theory and Composition
 Musical Theater
 Graduate Specializations:
 Music Education
 Music Performance
 Piano Pedagogy
 Vocal Pedagogy
Philosophy B.A. B.S.
Physics B.A., B.S., M.S.
Political Science B.A., B.S.
Public Administration M.P.A.
Social Work B.A., B.S., M.S.W.
Sociology B.A., B.S., M.A.
Speech Communication B.A., B.S., M.A.
 Corporate and Organizational
 Communication P.B.C.
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 B.S., M.B.A.

Undergraduate Specializations:
 Computer Management and Information Systems
 Economics
 Entrepreneurship
 Finance
 General Business Administration
 Human Resource Management
 International Business
 Management
 Marketing

Graduate Specializations:
 Computer Management & Information Systems
 General Business Administration
 Business Economics and Finance B.S.
 Computer Management and Information Systems B.S., M.S.
 Economics and Finance M.A., M.S.
 Marketing Research M.M.R.

School of Dental Medicine

Dentistry D.M.D.
 Advanced Education in General Dentistry P.F.P.C.

School of Education

Early Childhood Education B.S.
 Educational Administration M.S.Ed., S.D.
 Elementary Education B.S., M.S.Ed.
 Exercise and Wellness B.S.
 Health Education B.S.
 Instructional Technology M.S.Ed.
 Web-based Learning P.B.C.
 Kinesiology M.S.Ed.
 Exercise Physiology P.B.C.
 Pedagogy/Administration P.B.C.
 Sports & Exercise Behavior P.B.C.
 Learning, Culture and Society M.S.Ed.
 Literacy Education M.S.Ed.
 Physical Education Teacher Education B.S.
 Psychology B.A., B.S., M.A., M.S.
 Graduate Specializations:
 Clinical-Adult
 Clinical Child and School Psychology
 General Psychology
 Industrial-Organizational
 School Psychology S.D.
 Secondary Education M.S.Ed.
 Special Education B.S., M.S.Ed.
 Speech Language Pathology M.S.
 Speech-Language Pathology and Audiology B.A., B.S.
 Teaching M.A.T.

School of Engineering

Civil Engineering B.S., M.S.
 Computer Engineering B.S.
 Computer Science B.A., B.S., M.S.
 Construction Management B.S.
 Electrical Engineering B.S., M.S.
 Industrial Engineering B.S.

Manufacturing Engineering B.S.
 Mechanical Engineering B.S., M.S.

School of Nursing

Nursing B.S., M.S.

Graduate Specializations
 Health Care and Nursing Administration
 Medical Surgical Nursing
 Nurse Anesthesia
 Nurse Educator
 Nurse Practitioner
 Psychiatric Mental Health Nursing
 Public Health Nursing

Family Nurse Practitioner P.M.C.
 Health Care and Nursing Administration P.M.C.
 Medical Surgical Nursing P.M.C.
 Nurse Anesthesia P.M.C.
 Nurse Educator P.M.C.
 Psychiatric-Mental Health P.M.C.
 Public Health Nursing P.M.C.

School of Pharmacy

Pharmacy Pharm.D.

Minor Programs of Study

Aerospace Studies
 Anthropology
 Art/Art History
 Art/Studio Art
 Biological Sciences
 Black American Studies
 Business Administration
 Chemistry
 Classical Studies
 Coaching
 Computer Science
 Construction Management
 Criminal Justice Studies
 Electrical Engineering
 English
 English/Creative Writing
 English/Linguistics
 Environmental Sciences
 French
 Geography
 German
 Health Education
 History
 Industrial Engineering
 Instructional Technology
 Kinesiology

Manufacturing Engineering
 Mass Communications
 Mathematics
 Mathematics Education
 Mechanical Engineering
 Military Science
 Music
 Peace and International
 Studies
 Philosophy
 Physics
 Political Science
 Psychology
 Religious Studies
 Russian Area Studies
 Social Science Education
 Sociology
 Spanish
 Speech Communication
 Speech Communication
 Education
 Statistics

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 life-long learning.

The undergraduate curriculum encourages students to set 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 Decision-Making 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.

General Education Program

The general education program plays a significant role in preparing students to meet the standards contained in the above Objectives for the Baccalaureate Degree. The specific objectives of the general education program are:

- to develop skills in logic, computation, and written and oral communication.
- to introduce students to the principles, substance, and methodology of disciplines in addition to their majors. These courses are distributed across three general education areas: fine arts and humanities, natural sciences and mathematics, and social sciences.
- to require study beyond a basic introduction to the disciplines in all three general education areas.
- to foster awareness of the interrelationships among fields of human knowledge by requiring interdisciplinary study.

Requirements

General education requirements at SIUE include four types of courses: skills, introductory, distribution and interdisciplinary. The purposes of the courses are summarized below.

Skills courses develop proficiency in basic competencies necessary for success in University study as well as for success in employment and in personal living. All students must complete six credit hours (two courses) in written expression. The remainder of the skills requirements may be fulfilled through one of two options. Under option A, students complete courses in oral communication, critical thinking, and either statistics or computer programming, for a total of nine credit hours. Under option B, students complete a two-term sequence of a foreign language, as well as a course in critical thinking, statistics or computer programming, for a total of 11 credit hours. All skills courses, and only skills courses, are numbered between 100 and 110.

Introductory courses provide beginning study in five different disciplines outside students' major fields. These five courses focus on the elementary theory, principles, and methods of the disciplines that are traditionally central to the liberal arts and sciences. All Introductory courses bear the number 111, except for those introductory-level courses that may be selected as substitutions in the general education area of natural sciences and mathematics. Students may wish to review the substitutions in the natural sciences and mathematics area listed in the general education outline, which is included in this section of the catalog.

The Introductory course in a student's major field does not count towards fulfillment of the general education introductory course requirement. However, a student with a double major may use the introductory course in one major field to fulfill general education introductory course requirements. A student majoring in a foreign language may count one course in the FL 111 sequence as an introductory course in fine arts and humanities if it is in a language other than the language chosen for the major.

Introductory courses are distributed among the three general education (GE) areas: fine arts and humanities, natural sciences and mathematics, and social sciences. Students select two introductory courses from two of the areas, and one introductory course from the third area.

The distribution requirement continues the principles of general education beyond the introductory level. The distribution requirement must be fulfilled from courses (1) other than 111 and equivalent introductory courses up to 499, and (2) that count toward a major offered by one of the following departments: Anthropology, Art and Design, Biological Sciences, Chemistry, Economics, English Language and Literature, Foreign Languages and

Literature, Geography, Historical Studies, Mass Communications, Mathematics and Statistics, Music, Philosophical Studies, Physics, Political Science, Psychology, Social Work, Sociology and Criminal Justice Studies, Speech Communication, and Theater and Dance, except for courses which the above departments have excluded as inappropriate for general education credit. A list of those excluded courses appears in a later section.

Students take one course of at least 3 hours credit from each of the three general education areas of fine arts and humanities, natural sciences and mathematics, and social sciences, but they may not count a course that carries their major department prefix. Some of these courses have prerequisites, and students should be certain that they have satisfied these. In some of these courses, majors in the programs offering the courses may be given priority in enrollment. Moreover, students are advised that 400-level courses typically are oriented towards majors, minors, and in some cases, graduate students, who have already had extensive work in the discipline. Before enrolling in a 400-level course, students may wish to consult the instructor.

Interdisciplinary courses provide opportunities to observe and participate in the interaction of two or more disciplines. All students are required to include at least one such course among their general education courses. All interdisciplinary courses are numbered 300 or above and are open only to juniors and seniors.

Other Requirements

New Student Seminar Requirement

The University requires that all new freshmen complete a new student seminar during their first term. The seminar requirement may be met by completing UNIV 112; Culture, Ideas and Values 115; Honors Scholars 120; any approved learning community (linked courses), or any section of an introductory or distribution General Education course that has been approved as a new student seminar. New student seminar courses that meet this requirement 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.

A course meeting the new student seminar requirement also may be used to fulfill major, minor, elective, or General Education requirements.

Intergroup Relations and International Issues or International Culture Requirements

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 human 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.) The University requires that students complete one course that examines intergroup relations in order to meet the state requirement. In addition to an intergroup relations course, students are required to take a second course that examines either international issues or international culture.

Courses that may be taken to satisfy these requirements are listed at the end of this section of this catalog. In the course description section of the catalog, courses satisfying the requirements are identified in the course description. Intergroup relations courses are indicated by [IGR], International issues courses are indicated by [II], and International culture courses are indicated by [IC].

Courses meeting the intergroup relations, international issues and international culture requirements may also be used to fulfill major, minor, elective or general education requirements.

Entry Competencies for General Education Courses

Students enrolling in general education courses are required to have competencies necessary for successful completion of those courses.

The following policies apply to newly entering freshmen.

1. Students who have been identified as needing developmental instruction in English composition must successfully complete Basic Writing (Academic Development [AD] 090, or 092) before enrolling in introductory general education courses or in other general education courses requiring writing skills.
2. Students who have been identified as needing developmental instruction in reading must have completed College Reading I (Academic Development [AD] 080) or have concurrent enrollment in or completion of College Reading II (Academic Development [AD] 082) when enrolling in general education courses.
3. Students who have been identified as needing developmental instruction in mathematics must successfully complete the equivalent of Intermediate Algebra (Academic Development [AD] 075, or 095) before enrolling in introductory general education courses in the general education area of natural sciences and mathematics.

Proficiency Examinations for General Education Courses

Proficiency examinations are available for all skills and introductory courses in the general education curriculum. Some of the examinations are administered through the Instructional Services Testing Office. Students who want to take proficiency examinations should contact Instructional Services in Peck Hall, room 1404, (650-2295) for information and instructions. Credit hours earned from successful completion of a proficiency examination in a skills course will be applied toward fulfillment of the general education requirement for that skill. Students who pass an SIUE departmentally administered proficiency test, or receive a departmentally recognized AP score, may receive credit for introductory courses as well as credit that counts toward the 124 hours required for graduation. Proficiency examinations are available for some distribution courses. Students interested in obtaining information regarding proficiency examinations for distribution courses should consult the appropriate departments or the Instructional Services Testing Office. Proficiency examinations are not available for interdisciplinary studies courses. A list of proficiency exams offered to students may be found at www.siu.edu/IS/TEST/Proficiency.

Re-entering Students

Former students who have not attended SIUE for three or more terms, including summer, must apply for re-admission. 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 or first 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 adviser to determine the most efficient means of completing degree requirements.

Transferring Students

Transfer students may satisfy SIUE's general education program by:

1. satisfying the written expression requirement with grades of "C" or better, and
2. completing an interdisciplinary studies course, and
 - 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), or

- b) fulfilling all required course work in SIUE's general education program.

No credit will be accepted for remedial or developmental courses or for any course work completed at unaccredited institutions.

Waiver of the skills option B foreign language requirement does not waive the foreign language requirement for students seeking a bachelor of arts degree.

Transcript Evaluations

Transcript evaluations will be completed for course work earned at regionally approved 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 Credit Articulation and Degree Audit, Rendleman Hall, room 1207, (618) 650-5699. 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 System

The course numbering system identifies those courses appropriate for meeting the skills, introductory, distribution and interdisciplinary course requirements of the general education program. It also helps students select courses appropriate for their class level.

Courses numbered 100-110 fulfill general education skills requirements.

Courses numbered 111 fulfill introductory course requirements in general education.

Courses numbered above 111 normally carry major or minor credit and may fulfill distribution general education course requirements.

Courses bearing a prefix of IS (interdisciplinary studies) are courses that juniors and seniors may select to fulfill the interdisciplinary course requirements in general education.

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
- 300 courses most appropriate for juniors and seniors
- 400 courses most appropriate for students with 60 hours or more
- 500 graduate courses not accepted for application to a bachelor's degree.

Summary of Requirements and Courses

The total number of general education credit hours required of students selecting skills option A is 42. Students selecting skills option B are required to complete 44 credit hours in general education. A summary of these requirements is provided on the following pages. Descriptions of the skills, introductory, distribution, and interdisciplinary courses appear in the [course description](#) section of the catalog.

General Education Requirements

42-44 Hours

Skills Courses — 15-17 hours (to be satisfactorily completed by the end of the sophomore year)

Written Expression 6 hours

English 101 – English Composition I
English 102 – English Composition II
and either Option A or Option B below.

Option A

Choose One 3 hours
Speech Communication 103 – Interpersonal Communication Skills
Speech Communication 104 – Oral Argumentation Skills
Speech Communication 105 – Public Speaking

Choose One 3 hours
Mathematics 106 – Reasoning and Problem Solving
Philosophy 106 – Critical Thinking
Foreign Language 106 – Word Analysis
Industrial and Manufacturing Engineering 106 – Engineering Problem Solving (Engineering majors only)

Choose One 3 hours
Computer Science 108 – Applied Computer Concepts (or one of CS 140, 145 (for Engineering Students only) or 150)
Computer Management and Information Systems 108 – Computer Concepts and Applications (or one of CS140 or 150)
Statistics 107 – Concepts of Statistics (or one of STAT 244, 380 or 480)

OR

Option B

Choose One 2 semesters
Chinese 101 and 102 – Elementary Chinese
French 101 and 102 – Elementary French (or FR 104-8)
German 101 and 102 – Elementary German (or GER 104-8)

Greek 101 and 102— Introduction to Greek
 Italian 101 and 102 – Elementary Italian (or ITAL 104-8)
 Latin 101 and 102 – Introduction to Latin
 Russian 101 and 102 – Elementary Russian (or RUS 104-8)
 Spanish 101 and 102 – Elementary Spanish (or SPAN 104-8)

Choose One 3 hour

Foreign Language 106 - Word Analysis
 Mathematics 106 – Reasoning and Problem Solving
 Philosophy 106 – Critical Thinking
 Industrial and Manufacturing Engineering 106 – Engineering Problem Solving (Engineering majors only)
 Statistics 107 – Concepts of Statistics (or one of STAT 244, 380 or 480)
 Computer Science 108 – Applied Computer Concepts (or one of CS 140, 145 (for Engineering Students only or 150)
 Computer Management and Information Systems 108 – Computer Concepts and Applications

Introductory Courses — 15 hours

Choose two courses from two of the following groups and one course from the third group. The Introductory course in one's major field cannot count toward fulfillment of the Introductory course requirements.

Fine Arts and Humanities

Art 111 – Introduction to Art
 Dance 111 – The Dance Experience
 English 111 – Introduction to Literature
 Foreign Language 111* – Introduction to Foreign Studies (a) French (b) German (c) Spanish (d) Chinese (e)
 French: The French Speaking World
 Music 111 – Introduction to Music History/Literature
 Philosophy 111 – Introduction to Philosophy
 Speech Communication 111 – Introduction to Speech Communication
 Theater 111 – The Dramatic Experience

Natural Sciences and Mathematics

Biology 111 – Contemporary Biology (or one of BIOL 120, 121 or 240a)
 Chemistry 111 – Contemporary Chemistry (or one of CHEM 120a, 121a, 120n (Nurs) or 131 (Engr)
 Computer Science 111 – Concepts of Computer Science
 Earth Science 111 – Introduction to Physical Geology and Geography
 Mathematics 111 – Mathematics for Life (or one of MATH 112A, 120, 125, 130 or 150)
 Physics 111 – Concepts of Physics (or one of PHYS 206a or 211a)

Social Sciences

Anthropology 111 – Introduction to Anthropology
 Economics 111 – Principles of Economics
 Geography 111 – Introduction to Geography
 History 111** – Introduction to the History of Western Civilization (a) Renaissance to the Age of Napoleon (b) Age of Napoleon to the Present
 Political Science 111 – Introduction to Political Science
 Psychology 111 – Foundations of Psychology
 Sociology 111 – Introduction to Sociology or 201

* Only one Foreign Language 111 course may be used toward Introductory course requirements. Foreign Language majors may count one Foreign Language 111 course in a language other than the major.

** Either course taken in the History 111 a,b sequence may fulfill either an Introductory or a Distribution Social Science requirement in General Education. No single course in the sequence can fulfill both Introductory and Distribution course requirements.

Distribution Courses — 9 hours

Choose one course in each of the following areas:

Fine Arts and Humanities
 Natural Sciences and Mathematics
 Social Sciences

Students are required to take nine hours of courses that meet distribution course requirements. The distribution requirement is designed to acquaint students with three broad areas in the general education program. Students must choose one course in each of the following areas:

Fine Arts and Humanities (3)
 Natural Sciences and Mathematics (3)
 Social Sciences (3)

The courses that meet the distribution requirements are identified in the course description section of the catalog and marked Distribution: Fine Arts and Humanities; Distribution: Natural Sciences and Mathematics; and Distribution: Social Sciences.

Students may not count a course for distribution credit that carries the departmental prefix of their major department. Skills and introductory courses do not meet distribution requirements.

The following courses are **not eligible** for distribution credit:

AD: All Courses
 ANTH 430, 483, 490, 491
 AS: All Courses
 ART: 112a-d, 202a,b,d,e,f,g 289, 300a,b, 302a,b, 305, 309, 310a,b, 311, 312, 325, 331, 358, 359, 360, 361, 364, 365, 384, 386, 393, 401, 402, 405, 408a-c, 410, 412, 413, 416, 420, 422, 426, 430, 440, 441, 450, 452, 484, 486, 498, 499
 BIOL: 240a, 417, 422, 425, 439, 444b, 467, 468, 471, 473, 480, 483a-c, 490, 491a-u, 492a-d, 493a-w, 495a-f, 495g-n, 497
 CHEM: 113, 245, 296, 335, 345, 365a-b, 396, 415, 419, 435, 439, 445, 446, 449, 455, 459, 469, 479, 494, 496, 499
 CJ 201, 202, 205, 206, 208, 302, 303, 364, 365, 366, 368, 390, 396, 401, 408, 420, 464, 465, 470, 488
 DANCE: 210a-b, 211a-b, 212a-b, 213, 220, 230, 250, 310a-b, 311a-b, 410a-b, 411a-b, 420a, 420b, 433
 ECON: 325, 344, 400, 415, 417, 439, 450, 490
 ENG: 200, 369, 405, 416, 468, 470, 472, 474, 475, 476, 482, 485, 486, 487, 488, 491, 492, 493, 494, 496, 497a, 498, 499
 ENSC: 120, 404, 419, 445, 472, 491, 495, 499
 FR: 400a,b
 GEOG: 312, 322, 416, 427, 428, 429, 440, 450, 470, 490, 499
 GER: 305, 400a,b, 454
 HIST: 301, 323, 401, 444, 490
 HONS: All Courses
 HUM: 150, 490
 IS: All Courses
 ITAL: 220, 499
 LIBS: All Courses

MC: 341, 422, 442, 447, 481, 482, 491, 495, 499
 MATH: 223, 310, 416a-i, 498, 499
 MSC: All course
 MUS: 100, 112 a, b; 113, 114, 116a-121b, 139a-222, 227-244, 301a-c, 318a,b, 322, 333, 337, 340a-355b, 365, 377, 401-411e, 413a-441u, 444-460b, 465-499
 OR: All Courses
 PHIL: 490, 495
 PHYS: 212a,b, 312, 375, 397, 398, 416, 431, 432, 433, 434, 438, 439, 480, 494, 495, 497, 498
 POLS: 310, 410, 411, 430
 PSYC: 200, 220, 221, 311, 313, 390, 407, 420, 421, 450, 461, 473, 474, 487, 491, 492, 493, 494, 495, 498, 499
 PAPA: 410, 411, 412, 420
 SCI: 241a,b, 401, 405, 411, 414, 415, 421, 425, 431, 435, 442, 451, 452, 462, 489
 SOCW: 202, 211, 301, 302, 303, 315, 316, 395, 400, 401, 480, 482, 483
 SOC: 325, 326, 396, 433, 495
 SPAN: 292, 400
 SPC: 309, 409, 415, 461, 491
 STAT: 244, 380, 410, 478, 480a,b, 481, 482, 483, 484, 485, 486a,b, 487, 488, 495
 SAB: All Courses
 THEA: 199, 230, 235, 255, 265, 275, 276, 290, 295, 298, 310a,b, 315a,b, 398, 430, 450, 460, 470, 475, 485, 490, 495, 498, 499a,b,c
 UNIV: 112
 WMST: 314, 350, 352, 353, 451, 490, 495, 499

Business, education, engineering and nursing courses do not count for general education credit, except for courses in psychology and economics.

Interdisciplinary Studies

(3 hours)

Junior or senior standing is required for enrollment in interdisciplinary studies courses.

IS 302 African American Music and the Struggle for Freedom
 IS 322 Ethics, Biology and Society
 IS 324 People and Cultures of the East
 IS 326 Modern Latin America
 IS 328 History and Science (or Dist NSM, not both)
 IS 331 Mind and Language
 IS 332 The Political and Social Thought of Hegel and Marx
 IS 334 Natural Resources: Issues and Conflicts
 IS 335 Early Illinois: Its Land and People
 IS 336 Global Problems and Human Survival
 IS 340 The Problem of War and Peace
 IS 341 The Immigrant in America
 IS 342 Death and Dying
 IS 343 Contemporary Health Care Issues
 IS 345 Quilts as Cultural Heritage
 IS 350 Women and Social Institutions
 IS 352 Women in the Ancient World (same as WMST 352)
 IS 353 Representing Women's Bodies 0300-1500
 IS 360 Survival of the Fittest
 IS 361 Music: Art and Science
 IS 363 Living Ecologically
 IS 364 The Atomic Era: Hitler, the Holocaust and the Bomb

IS 375 Technology and Public Policy
 IS 376 Information Technology and Society
 IS 377 The Arts and the French Revolution
 IS 380 Song and Poetry
 IS 385 Risk and Risk Tradeoffs
 IS 386 Cyberarts: Exploring Fine Arts and Computer Technology
 IS 387 Philosophy and Modern Physics
 IS 388 Art and Politics in 19th Century France
 IS 399 Interdisciplinary Studies-Special Topics
 IS 400 History, Culture, and Language of China
 IS 401 Business and Society

Intergroup Relations, International Culture, International Issues Requirement

Students are required to take one course in the area of intergroup relations and a second course from either international issues or international culture. Courses taken to fulfill these requirements may also fulfill major, minor, general education or elective requirements. A list of approved intergroup relations, international culture and international issues courses may be found in the following section. Courses approved for these requirements also are indicated as such in the course description section of this catalog.

Intergroup Relations

Anthropology

305 People and Cultures of Native North America
 311 Culture of African-Americans
 312 Contemporary Native Americans
 313 Women in Cross-Cultural Perspectives (same as WMST 313)

Biology

450 Science, Gender and Race (same as WMST 450)

Economics

327 Social Economics: Issues in Income Distribution, Employment, and Social Policy

Educational Psychology, Foundations of Education

451 Gender and Education (same as WMST 451)

English

205 Introduction to African-American Text
 341 The African-American Women's Writing (same as WMST 341)
 342 Movements in African-American Literature
 343 Topics in African-American Rhetoric and Oratory
 344 Topics in Ethnic Literature
 345 Topics in African-American Poetry and Folklore
 446 Studies in African-American Literature
 457 Topics in Postcolonial Literature and Criticism
 478 Studies in Women, Language, and Literature (same as WMST 478)

History

130 History of Black America
 219 America in the World: American History for Teachers
 340 Black Freedom Movement 1955-1975
 423a,b Native Americans 1492-Present

- 427 History of South Africa
- 440 Women in American Social History (same as WMST 440)
- 442 The Black Urban Experience

Interdisciplinary Studies

- 345 Quilts as a Cultural Heritage
- 350 Women in Social Institutions (same as WMTS 350)
- 352 Women in the Ancient World (same as WMST 352)
- 375 Technology and Public Policy

Management

- 341 Organizational Behavior and Personal Skills

Mass Communications

- 351 Women in Mass Communications (same as WMST 351)

Philosophy

- 344 Women and Values (same as WMST 344)
- 346 Feminist Theory (same as WMST 346)
- 347 Philosophical Foundations of Racism

Political Science

- 354 Women and Cross National Politics
- 440 African American Politics
- 441 Women and Politics-American

Psychology

- 305 Psychology of Gender (same as WMST 305)
- 407 Multicultural Issues in Psychology

Social Work

- 390 Diversity and Issues of Social and Economic Justice

Sociology

- 304 Race and Ethnic Relations
- 308 Women, Gender and Society (same as WMST 308)
- 335 Urban Sociology
- 394 Sociology of the Black Family
- 444 Gender, Ethnicity and Class in the Workplace

Spanish

- 292 Service Learning for the Beginning Language Student
- 492 Service Learning for the Advance Student

Special Education

- 200 Introduction to People with Disabilities in Society and School

Speech Communication

- 103 Interpersonal Communication Skills
- 210 Interracial Communication
- 331 Gender and Communication (same as WMST 331)

Theater

- 312 Multicultural Theater in America

Women's Studies

- 200 Issues in Feminism
- 305 Psychology of Gender (same as PSYC 305)
- 308 Women, Gender and Society (same as SOC 308)
- 313 Women in Cross-Cultural Perspectives (same as ANTH 313)
- 331 Gender and Communications (same as SPC 331)
- 341 African-American Women Writing (same as ENG 341)
- 344 Women and Values (same as PHIL 344)
- 346 Feminist Theory (same as PHIL 346)
- 350 Women in Social Institutions (same as IS 350)

- 351 Women in Mass Communications
- 352 Women in the Ancient World (same as IS 352)
- 354 Women and Cross Cultural National Politics
- 394 Sociology of the Black Family
- 440 Women in American Social History (same as HIST 440)
- 441 Women and Politics in America (same as POLS 441)
- 444 Gender, Ethnicity and Class in the Workplace
- 450 Science, Gender and Race (same as BIOL 450)
- 451 Gender and Education (same as EPFR 451)
- 478 Studies in Women, Language and Literature (same as ENG 478)

International Issues

Anthropology

- 333 Origins of New World Cities and States
- 350 Anthropology in Contemporary Life
- 411 Urban Anthropology
- 452 Political Anthropology

Biology

- 204 Biotechnology and Society
- 365 Ecology
- 371 Plants and Civilization

Economics

- 361 Introduction to International Economics
- 450 International Finance
- 461 International Trade Theory and Policy

Finance

- 450 International Finance

Geography

- 205 Human Geography
- 300 Geography of World Population
- 301 Economic Geography
- 401 Geography of Development
- 406 Political Geography

History

- 111b History of Western Civilization
- 112b World History
- 219 America in the World: American History for Teachers
- 314 History of Feminist Thought
- 318b History of Russia
- 352b History of Africa
- 354b History of the Middle East
- 356b History of China
- 358 History of Japan
- 360b History of Latin America
- 408c History of England
- 413 History of Modern France
- 415 Modern Germany History
- 420b European Social, Cultural, and Intellectual History
- 422c Late Modern Europe
- 424 Topics in East European History
- 426 Topics in Russian and Soviet History
- 427 History of South Africa
- 428 Topics in European Women's History (same as WMST 428)
- 454 History of Arab-Israeli Conflict
- 460 History of Mexico

Humanities

310a	Esperanto	447a,b	Ancient Art
310b	Esperanto	448a,b	Early Christian and Medieval Art
Interdisciplinary Studies		449a,b	Renaissance Art
326	Modern Latin America	468a	Pre-Columbian Art
336	Global Problems and Human Survival	468b	North American Indian Art
340	The Problems of War and Peace	469a,b	Primitive Art: African and Oceania
363	Living Ecologically	473a,b	Women in Art (same as WMST 473a,b)
364	The Atomic Era: Hitler, The Holocaust and the Bomb	Biology	
375	Technology and Public Policy	371	Plants and Civilization
401	Business and Society	Chinese	
Management		102	Elementary Chinese II
461	Managing in the Global Economy/International Management	English	
Marketing		304	Literary Masterpieces
476	International Marketing	340	Literature of the Third World
Mass Communications		462	Modern British and Continental Drama
453	Transnational Media	Foreign Language	
Political Science		111a	Introduction to Foreign Studies: French
111	Introduction to Political Science	111b	Introduction to Foreign Studies: German
350	Western European Political Systems	111c	Introduction to Foreign Studies: Spanish
351	Eastern European Political Systems in Transition	111d	Introduction to Foreign Studies: Chinese
355	Political Systems - Latin America	111e	Introduction to Foreign Studies: The French Speaking World
356	Political Systems - Asia	230	Foundations of Celtic Culture
370	Introduction to International Relations	345	Literature in Translation
459	Topics in Comparative Politics	330	Celtic Culture: Mythology and Religion
472	International Organizations	350	The Celtic Heroic Age
473	United States Foreign Policy	491	Cultural and Language Workshop-Italian, Chinese, Russian, etc.
479	Topics in International Relations	French	
Sociology		102	Elementary French II
481	Population Dynamics	104	Elementary French
Spanish		311	Contemporary France
292	Service Learning for the Beginning Language Student	351	Survey of French Literature: Middle Ages through Classicism
Women's Studies		352	Survey of French Literature: Enlightenment to the present
314	History of Feminist Thought	353	Survey of the French Novel
428	Topics in European Women's History	451	Studies in French Literature: Middle Ages thru Renaissance
International Culture		452	Studies in French Literature: Classicism thru Enlightenment
Anthropology		453	Studies in French Literature: Romanticism to present
111	Introduction to Anthropology	456	Seminar on Women Writers (same as WMST 456)
301	Language and Culture	457	African and Caribbean Literature of French Expression
302	World Music	491	Cultural and Language Workshop-French
306	People and Culture of Asia	Geography	
307	People and Culture of Latin America and the Caribbean	111	Introduction to Geography
310	People and Culture of Africa	201	World Regions
315	Family and Household in Cross-Cultural Perspective	330	Geography of Europe
331	World Pre-History	331	Geography of the Commonwealth of Independent States
332	Origins of Old World Cities and States	332	Geography of Africa
334	Origins of Agriculture	333	Geography of Asia
340	Cultural Ecology	334	Geography of Latin America
402	Language and Gender in Cross-Cultural Perspective	German	
404	Anthropology and the Arts	102	Elementary German II
410	Anthropology of Religion	104	Elementary German
Art		311	German Culture
225a,b	History of World Art	351	Survey of German Literature: Middle Ages thru Romanticism
424a,b	Baroque and Rococo Art	352	Survey of German Literature: Realism to the present
		353a-c	Survey of German Genre
		411	German Civilization
		452	Faust
		453	Seminar in German Literature
		491	Cultural and Language Workshop-German

Greek

- 102 Introduction to Greek

History

- 111a Introduction to the History of Western Civilization
 112a World History
 113 Civilizations of the Ancient World
 114 Survey of Medieval History
 302 Ancient Egypt
 303 History of Ancient Near East
 304 History of Greece
 305a,b Comparative Asian Civilization, Antiquity Through the Present
 306a,b History of Rome
 308a Imperium and Christianity: Western Europe 300-1000 CE
 308b Medieval Conquests and Kingdoms 100-1500 CE
 315 History of Religion in Europe
 318a History of Russia
 322 History of Italy
 352a History of Africa
 354a History of the Middle East
 356a History of China
 360a History of Latin America
 403 Ancient Mesopotamia
 404 a,b Topics in Medieval, Social, Religious and Intellectual History
 412 The French Revolution
 420a European Social, Cultural, and Intellectual History
 422a,b Late Modern Europe

Interdisciplinary Studies

- 324 People and Culture of the East
 352 Women in the Ancient World
 353 Representing Women's Bodies 0300-1500
 364 The Atomic Era: Hitler, The Holocaust and The Bomb
 377 The Arts and the French Revolution
 400 History, Culture and Language of China

Italian

- 102 Elementary Italian II
 104 Elementary Italian
 311 Italian Culture and Civilization

Latin

- 102 Introduction to Latin

Philosophy

- 233 Philosophies and Diverse Cultures
 300 Ancient Greek and Roman Philosophy
 301 Medieval Western Philosophy
 302 Classical Modern Western Philosophy
 303 Nineteenth Century Western Philosophy
 308 Twentieth Century European Philosophy
 334 World Religions
 440 Classical Political Theory (same as POLS 484)
 441 Modern Political Theory (same as POLS 485)

Political Science

- 484 Classical Political Theory (same as PHIL 440)
 485 Modern Political Theory (same as PHIL 441)

Russian

- 102 Elementary Russian II
 104 Elementary Russian

Spanish

- 102 Elementary Spanish II

- 104 Elementary Spanish
 292 Service Learning for the Beginning Language Student
 311 Contemporary Spain
 312 Contemporary Spanish America: Peninsula
 351 Survey of Spanish Literature: Colonial until present
 352 Survey of Spanish-American Literature
 451 Studies in Spanish Literature: Beginnings thru 17th century
 452 Studies in Literature in the Spanish Language
 -17th thru 20th century
 453 Seminar in Hispanic Literature
 457 Don Quixote
 471 Spanish-American Literature: Short stories and novels
 491 Language and Cultural Workshop-Spanish
 492 Service Learning for the Advanced Student

Theater

- 310b Acting V: International/Experimental Styles

Women's Studies

- 315 Family and Household Cross-cultural Perspective
 352 Women in the Ancient World
 353 Representing Women's Bodies 0300-1500
 402 Language and Gender in Cross-Cultural Perspectives
 456 Seminar on Women Writers
 473a,b Women in Art

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 on or after summer 1998.

For more information, contact an admission counselor at (618) 650-3705 or e-mail us at admissions@siue.edu. You also may find additional information on SIUE's Admissions web site, www.siue.edu/prospectivestudents, or the IAI web site, www.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

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 make improvements in 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 three main components of SIUE's undergraduate assessment are placement testing, midpoint assessment, and the senior assignment.

Placement Tests

Some entering undergraduate students must 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 skill level in mathematics, writing, and reading in order to identify course work 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 course work, and/or placement tests.

For transfer students who have attempted at least 16 semester hours of credit elsewhere, placement into these courses is based on 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 whose test scores in writing, reading, and/or mathematics are below internally established indicators of entry level competence must begin the process of development or redevelopment during the first semester of enrollment and must demonstrate steady progress in each

succeeding semester. Successful completion of such academic development courses must be achieved within

Most SIUE courses designated AD (academic development) and all courses numbered below 100 carry institutional credit only; that is, they do not count toward graduation.

Midpoint Assessment

All students, whether they begin their careers at SIUE or enter as transfer students, are expected to participate in midpoint assessment. Student participation may occur as part of ordinary course work for the baccalaureate degree so that the assessment process adds no extra work other than to require an additional copy of the product to be assessed. Many different assessment devices are used and include, but are not limited to, portfolios, reflective essays, course papers, standardized exams, and interviews. Regardless of the assessment measure used, students who participate in midpoint assessment receive feedback and notice of the results of their contributions.

The 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 a 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.



College of Arts and Sciences

M. Kent Neely, Ph.D.

Dean and Professor

www.siu.edu/artsandsciences

SIUE is 50!

Since 1957, SIUE has grown from 1,776 students to nearly 13,500. Join us as we reflect upon and celebrate the accomplishments of students, faculty, alumni, and community members who have helped make SIUE the premier Metropolitan University we are today. Visit our Web site for 50th Anniversary event details:

www.siu.edu/50

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, 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, Science, Social Work, Sociology and Criminal Justice Studies, Speech Communication, and Theater and Dance.

The college also offers degrees in economics and liberal 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 significant majority of the general education program; undergraduate courses in the college provide a general liberal arts education appropriate to all University students. The faculty of the college are active in basic and applied research and in professional service to the University and to the community.

Anthropology

Associate Professors: Holt, J.Z. (Chair); Lutz, N.

Assistant Professors: Reh, J.; Willmott, C.

Anthropologists study humans and their biological and cultural development through time and space. Anthropology develops a respect for the various ways of life followed by others and knowledge of the reasons for these practices.

Special faculty interests include Native American peoples; peoples of Asia, Latin America, the Caribbean and Africa; Illinois prehistory; language; gender; history of anthropology; primate behavior and ecology; neotropical environments and conservation; zooarchaeology; museum studies; visual culture; ethnohistory; economic anthropology; urban culture; religion; clothing and textiles; political culture; and art and artifacts. Distinctive features of the program include opportunities for supervised archaeological and ethnographic fieldwork, for training in museum work in conjunction with the Anthropology Teaching Museum, for field trips and involvement in urban community projects, and for participation by qualified majors in the Alpha Chapter of Illinois of Lambda Alpha, the National Collegiate Honors Society for Anthropology. In addition, the faculty participates in interdisciplinary programs such as Women's Studies, Religious Studies, Museum Studies and Black Studies.

Students in good standing wishing to apply for a major or minor may enter the program by filing a formal application for a major or minor through the office of Academic Counseling and Advising, and then consulting with one of the department undergraduate advisers. Pre-registration advisement is mandatory for all declared majors and minors. All majors and minors must have a C or better in all Anthropology courses

All Anthropology majors are required to complete at least one course in each of the four major fields of the discipline: biological (physical) anthropology (Anth 360a-b: Biological Anthropology Methods and Theory), cultural anthropology (Anth 300: Ethnographic Methods and Theory), archaeology (Anth 325: Archaeological Methods and Theory), and linguistic anthropology (Anth 301: Language and Culture).

Career Opportunities

Anthropology majors may pursue graduate degrees at both the master's and doctoral level; such degrees lead to careers in university teaching, research, or museum work. Undergraduate anthropology majors find employment in secondary education, industry, cultural resource management, environmental studies, museums, human services, contract archaeology, and government services. Because of the breadth of the subject matter in anthropology, students frequently combine anthropology with other disciplines such as history, sociology, geology, 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 interesting and rewarding careers.

Degree Requirements

Bachelor of Arts Anthropology

The bachelor of arts degree, designed primarily to prepare students for advanced studies in anthropology, includes a foreign language requirement.

General Education Requirements	44
Some general education requirements may be satisfied while completing this major concentration. (Students must choose skills option B including 8 hours of foreign language.)	
Requirements for Major in Anthropology	33
Anthropology 111, 300, 301, 325, 360a-b, 490, 491.....	18
One course from both of the following areas:.....	6
Area 1 (archaeology and biological anthropology) 331, 332, 333, 334, 335, 365, 366, 367.	
Area 2 (cultural and linguistic anthropology) 302, 304 305, 306, 307, 310, 311, 312, 313, 350, 401, 402, 404, 408, 409, 410, 411, 426, 452.	
Anthropology electives chosen in consultation with adviser.....	9
Minor*	18
Electives	29
Total	124

* Students seeking a bachelor of arts or bachelor of science degree in anthropology are required to select a minor in consultation with their adviser.

Degree Requirements Bachelor of Science Anthropology

The bachelor of science degree is designed for students desiring to pursue anthropology in preparation for government service, industry, contract archaeology, museology, or foreign service, where advanced graduate degrees may not be required. The bachelor of science degree requirements include 9 hours in field methods courses: anthropology 373 (3-6), 375 (3-6), 473 (3),

and/or 475 (3), or the presentation of acceptable evidence of previous field work experience. It should be noted that field methods courses are offered only during the Summer Session.

Minor Requirements

A minor in anthropology consists of 18 hours. Twelve of these hours must be in junior (300-level) or senior (400-level) courses. Students are required to take the introductory anthropology course (111). The remaining hours consist of anthropology electives selected in consultation with an undergraduate anthropology adviser.

Exit Requirements

Graduates are expected to be knowledgeable about the biological and cultural development of humans and the diversity of humankind. As seniors, students must successfully complete anthropology 490 and 491.

Art and Design

Professors: Cooper, I.A.; Decoteau, P.H.; Dresang, P.A.; Duhigg, T. (Chair); Klorer, P.K.; Myers, P.K.; Strand, L.

Associate Professors: Barrow, J.A.; Brown, S.; DenHouter, J.; Ehrlich, M.J.

Assistant Professors: Anderson, T.; Dimick, B.; Nwacha, B.J.; Ruggiero, A.J.; Taylor, D.; Wilt, M.

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.

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.

Degree Requirements

Bachelor of Arts

Art: Specialization in Studio Art

General Education Requirements	42-44
Some general education requirements may be satisfied while completing this major concentration. Students in this degree program must elect option B in the skills area	
Requirements for Major in Art	66
ART 112a,b,c,d, ART 202e, ART 225a,b*	21
15 hours from ART 202a, b, c, d, f, g, h, or i	15
Art History	6
12 hours from 300/400 studio area (major area)	12
9 hours from three different 300/400 studio area classes (not major area)	9
Art 405	3
Open Electives	14
Completion of Senior Assignment**	
Total	124

* Six hours may also count toward general education distribution course requirements.

** Students should consult their departmental adviser for details regarding the senior assignment.

Degree Requirements
Bachelor of Arts
Art: Specialization in Art History

General Education Requirements	42-44
(Students must elect option B in the skills area.)	
Requirements for Major in Art	45
ART 225a,b*	6
39 hours from the following: ART 424a,b, ART 447a,b, ART 448a,b, ART 449a,b, ART 468a,b, ART 469a,b, ART 470, ART 473a,b, ART 475, ART 476, ART 480, ART 481a,b, ART 483	39
Electives and/or Minor	35
Students are urged to elect philosophy 360 and anthropology 305, courses in non-visual arts and history, additional language study, and art studio.	
Completion of Senior Assignment**	
Total	124

- * Six hours may also count toward general education distribution course requirement.
- ** Students should consult their departmental adviser for details regarding the senior assignment.

Degree Requirements
Bachelor of Fine Arts
Art and Design

Admission to the bachelor of fine arts degree program is by portfolio only, typically during the junior or senior year. Candidates for the bachelor of fine arts degree must maintain a cumulative grade point average of 2.50 (on a 4-point scale) all work and a 3.00 grade point average (on a 4-point scale) in studio courses to remain in the program.

General Education Requirements	42-44
(Some general education requirements may be satisfied while completing this major concentration.)	
Requirements for Major in Art	83-88
Art 112a, b, c, d, Art 202e Art 405, Art 441, Art 225a,b*	27
15 hours from ART 202a, b, c, d, f, g, or h	15
15 hours from 300/400 major studio area	15
9 hours from 300/400 studio areas (all courses different and not in major studio areas)	9
3 Art History electives	9
2 Art-related electives	6
Art 499: Thesis	2-6
Completion of Senior Assignment**	
Total	125-138

- * Three hours also may count toward general education international culture requirement.
- ** Students should consult their departmental adviser for details regarding the senior assignment.

Degree Requirements
Bachelor of Arts, Bachelor of Science, and Bachelor of Fine Arts
Teacher Certification

Students may seek secondary or broad field teaching certification with a degree in art in consultation with art education and School of Education advisers. Art education and professional education courses needed for certification may be taken as electives. Students pursuing the bachelor of

fine arts with certification will exceed the 124-hour degree requirements.

Degree Requirements
Bachelor of Science
Art Education

General Education Requirements	42-44
(Students seeking teacher certification must take specific general education requirements. See the secondary education section of this catalog.)	
Requirements for Major in Art	69-72
ART 112a,b,c,d	12
ART 202a,b,c,d,e, f, g, h	15
ART Studio 300/400 level	15
ART Education ART 289,300b,364, 365 (K-12 certification)	9-12
ART History ART 225a,b	6
ART History Elective	6
Art Electives	6
Professional Education	23
CI 200	2
EPFR 320	3
EPFR 315	3
EDUC 305	3
SPE 400	3
CI 451B	6
CI 352	6
Completion of Senior Assignment*	

Total 134-139

- * Students should consult the department adviser regarding the senior assignment.

Minor Requirements

Students desiring a minor in art should take the following courses: Basic Studio, ART 112 (12); Foundation Studio, ART 202 (9); and History of World Art, ART 225a,b (6). Students seeking a minor in art history should take the following courses: History of World Art, ART 225a,b (6) plus 12 additional hours from 400-level art history courses listed under the Degree Requirements for Bachelor of Arts, Art, Specialization in Art History.

Fees

Fees are assessed for all studio courses. Fees are billed at the beginning of the semester and should be paid at the Office of the Bursar. Students who drop classes after the second week of the semester are not eligible for a refund of studio fees.

Biological Sciences

Professors: Axtell, R.; Brugam, R.; Kitz, D.; Krajniak, K.; McCommas, S.; Smith, M. (Distinguished Research Professor); Wanda, P.

Associate Professors: AbuSharbain, E.; Brunkow, P.; Duvernell, D.; Esselman, E.; Lin, Z-Q; Retzlaff, W. (Chair); Schulz, K.

Assistant Professors: Barry, K.; Essner, R.; Fowler, T.; Kohn, L.; Liebl, F.; McCracken, V.; Minchin, P.; Sawyer, S.; Theodorakis, C.

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 open-ended 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 four tissue culture facilities, warm and cold rooms, computer laboratories, a greenhouse, and a photographic laboratory. Preparative ultracentrifuges, scintillation counters, fraction collectors, automated DNA sequencers, spectrophotometers 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 CO₂ 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.

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 health-related 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.

Graduation Requirements

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

- 1 Earn a minimum of 124 hours of acceptable credit with a cumulative grade point average of 2.0 or higher;
- 2 Complete the minimum number of credit hours required for a particular degree;
- 3 Complete at least 12 hours of SIUE credit in major courses numbered above 319 with a cumulative grade point average of 2.0 or above;
- 4 Earn a GPA of 2.0 or above in all Biology courses numbered above 319;
- 5 Complete at least 6 hours of credit in biology courses numbered above 319 earned at SIUE within 2 years preceding graduation.

Duplicate 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), are not applicable toward graduation requirements.

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 biology adviser 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 a faculty adviser at the time of declaration. Students are required by the University to consult an adviser prior to registration each term. Enrollment in biology major courses above 121 requires approval of a biology adviser. Biology—particularly specializations in medical sciences, secondary education, 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 Department of Biological Sciences at (618) 650-3927. The adviser will be pleased to help students prepare a program of study in biological sciences in any one of the six specializations.

Academic Requirements

A Academic Standards

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

- 1 A grade of C or better is required in each of the major core courses (120, 121, 220, 319) before proceeding to the next core course and as prerequisite to courses numbered above 319.
- 2 No more than 4 hours of D may be counted in the 36 hours required for a major in the biological sciences.
- 3 The GPA in the major is based on all courses attempted in the major.
- 4 Any student who receives four grades of D, F, or WF in biology courses numbered 319 or lower is no longer permitted to enroll in biology classes for credit toward a biology major.

B 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 28 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.

Specializations in Biological Sciences

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

- 1 Integrative Biology
- 2 Ecology, Evolution, and Environment
- 3 Medical Sciences
- 4 Genetic Engineering
- 5 Secondary Education
- 6 Medical Technology

Brief descriptions of these specializations and the academic requirements for each follow. Programs are flexible enough to allow students to change specializations should their goals or interests change.

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 a faculty adviser. Advisement is mandatory. Majors are permitted to register each term only after their Course Request Forms have been approved by a departmental adviser. 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.

Academic Status

- 1 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:
 - a) grade point average of 1.0 or below in any term
 - b) cumulative grade point average of lower than 2.0 in the major at any time
 - c) any combination of withdrawal, incomplete, and failing grades in 50% or more of the courses for which the student is registered during two successive terms
 - d) any combination of three withdrawal, incomplete, or failing grades in any single required course in Biology.
- 2 For re-admission, students must meet the same admission requirements as students entering the program for the first time.

Bachelor of Science/ Master of Science Curriculum

Undergraduates with exceptional academic credentials may be able to earn the bachelor's degree and the master's degree in biology in five years 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 advisers early in their junior year.

Degree Requirements Biological Sciences

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. Courses available in each discipline are listed at the end of this section.

Degree Requirements

Bachelor of Arts or Bachelor of Science Integrative Biology

General Education Requirements	42-44
The general education curriculum requires 42-44 hours of general education credit. The supporting mathematics and science courses required for this major satisfy 12 hours of the GE area natural sciences and mathematics requirements and the 3 hours skills requirement in statistics/computer programming. For the bachelor of arts degree, skills option B (8 hours of foreign language) is required.	
Biology Requirements	36
120, 121, 220, 319	16
One course from the area of Ecology, Evolution, and Behavior: (327, 365, 422, 461, 466, 468, 469, 470, 471, 480, 488)	3-4
One course from the area of Biological Diversity: (350, 380, 471, 474, 485, 486, 488)	3-4
One course from the area of Morphology, Physiology, and Development: (337, 340, 389, 461, 467, 472, 473)	3-4
One course from the area of Cellular and Molecular Biology: (332, 335, 415, 418, 421, 430, 432, 452, 455)	3-4
Senior Assignment: One senior assignment course (492a and c, 492b and d, or 497)	2
Biological Sciences Electives	2-6
Two lecture courses must be taken at the 400 level, and two courses above 319 must have a laboratory requirement. No course may be used for credit in more than one area.	
Chemistry Requirements	16-18
121a,b; 125a,b; 241a,b; 245	18
or 121a,b; 125a,b; 241a, BIOL 332	16
Mathematics/Physics Requirements	11-13
MATH 150 and PHYS 111	8
or PHYS 206a,b (or 211a,b and 212a,b)	10
STAT 244	4
Electives	13-19
Total	124

Discipline Electives

Plant Sciences: electives available include Ecology, 365; Plants and Environment, 461; Biogeography, 462; Applied Ecology, 464; Aquatic Ecosystems, 465; Terrestrial Ecosystems, 466; Pollution Ecology, 468; Field Biology, 470; Plant Systematics and Taxonomy, 471; Topics in Plant Physiology, 472; Plant Anatomy, 473

Microbiology: electives available include Immunology, 335; Microbiology, 350; Diagnostic Microbiology, 351; Microbial Pathogenesis, 451; Virology, 455

Physiology: electives available include Physiology, 340; Advanced Physiology, 441; Neurophysiology, 444a; Animal Physiological Ecology, 467; Topics in Plant Physiology, 472

Cellular and Molecular Biology and Genetics: electives available include Basic Biochemistry, 332; Immunology, 335; Microbiology, 350; Molecular

Biology Laboratory, 414; Techniques in Cell and Tissue Culture, 415; Recombinant DNA, 418; Human Genetics, 421; Population Genetics, 422; Biochemistry and Molecular Biology, 430; Cellular and Molecular Bases of Medicine, 431; Biomembranes, 433; Molecular Genetics, 452; Virology, 455

Zoology: electives available include Embryology, 325; Animal Histology, 337; Invertebrate Biology, 380; Biogeography, 462; Animal Physiological Ecology, 467; Field Biology, 470; Animal Behavior, 480; Entomology, 483; Ichthyology, 485; Herpetology, 486; Mammology, 488

Ecology, Evolution, and Environment Specialization

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 adviser to devise a course schedule to fit their specific talents and interests.

Degree Requirements

**Bachelor of Arts or Bachelor of Science
Biological Sciences
Specialization in Ecology, Evolution and**

Environment

General Education Requirements 42-44

The general education curriculum requires 42-44 hours of general education credit. The supporting mathematics and science courses required for this major satisfy 12 hours of the GE area natural sciences and mathematics requirements and the 3 hour skills requirement in statistics/computer programming. For the bachelor of arts degree, skills option B (8 hours of foreign language) is required.

Biology Requirements	36
120, 121, 220, 319	16
327 and BIOL 365	7
*492a and b	2
Electives	
(Two 400-level courses, one a field course, are required.)	11
Chemistry Requirements	18
121a,b; 125a,b; 241a,b; 245	18
Mathematics/Physics Requirements	14-16
MATH 150 and PHYS 111	8-10
or PHYS 206a,b (or 211a,b and 212a,b)	
STAT 244	4
CS 108 or CMIS 108	3
Electives	10-16
Total	124

* 492 is a Senior Assignment course.

Medical Sciences Specialization

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 adviser 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 chief health professions adviser maintains a centralized evaluation service to aid students seeking entry into professional schools during the application process. The adviser is available in the Department of Biological Sciences to help and advise such students regarding application procedures.

Degree Requirements

Bachelor of Arts or Bachelor of Science Biological Sciences Specialization in Medical Science

General Education Requirements	42-44
The general education curriculum requires 42-44 hours of general education credit. The supporting mathematics and science courses required for this major satisfy 12 hours of the GE area natural sciences and mathematics requirements. For the bachelor of arts degree, skills option B (8 hours of foreign language) is required.	
Biology Requirements	36
120, 121, 220, 319	16
340	4
BIOL 430a,b or CHEM 451a,b	6
BIOL 497 or equivalent	2
Electives (Electives must include one 400-level elective course.)	8
Chemistry Requirements	18
121a,b; 125a,b; 241a,b; 245	18
Mathematics/Physics Requirements	19
MATH 150	5
PHYS 206a,b (or 211a,b; and 212a,b)	10
STAT 244	4
Electives	7-9
Total	124

Students admitted to professional school at the end of the junior year may substitute transfer credit earned during the first year of professional school for any 36 hours of biology or general electives. In such cases, students earn degrees at the end of the first year of professional school after they apply for graduation and the University receives their transcripts for the first year.

Medical Technology Specialization

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 the physician 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. The 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 adviser 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.

Degree Requirements

Bachelor of Arts or Bachelor of Science Biological Sciences Specialization in Medical Technology

General Education Requirements	42-44
The general education curriculum requires 42-44 hours of general education credit. The supporting mathematics and science courses required for this major satisfy 12 hours of the GE area natural sciences and mathematics requirements and the three hour skills requirement in statistics/computer programming. For the bachelor of	

arts degree, skills option B (8 hours of foreign language) is required.	
Biology Requirements	30
120, 121, 220, 319	16
332, 335, 340, 350	14
Chemistry Requirements	18
121a,b; 125a,b; 241a,b; 245	
Mathematics/Physics Requirements	9
MATH 120	3
PHYS 111	3
STAT 107	3
Hospital Rotation	36
Total	135-137

Senior Assignment for Medical Technology Students

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.

Genetic Engineering Specialization

Genetic engineering is a rapidly expanding field in biology. Genetic engineering is a defined method for producing genetic changes in a variety of organisms in the laboratory. A large number of industrial companies and many research laboratories use genetic engineering in their work. Job opportunities are numerous and growing in number. Students with training in genetic engineering may be employed in diverse laboratory settings including plant breeding, insecticide development and the production of pharmaceuticals.

Degree Requirements

Bachelor of Arts or Bachelor of Science Biological Sciences Specialization in Genetic Engineering

General Education Requirements	42-44
The general education curriculum requires 42-44 hours of general education credits. The supporting mathematics and science courses required for this major satisfy 12 hours of the GE area natural science and mathematics requirements and the three hour (3) skills	

requirement in statistics/computer programming. For the bachelor of arts degree, skills option B (8 hours of foreign languages) is required.

Biology Requirements	36
120, 121, 220, 319	16
418a,b; 452, 492c,d*	11
BIOL 430a,b or CHEM 451a,b	6
BIOL Electives	3
Chemistry Requirements	18
121a,b; 125a,b; 241a,b; 245	
Mathematics/Physics Requirements	19
MATH 150	5
STAT 244	4
PHYS 206a,b (or 211a,b and 212 a,b)	10
Electives	10-12
Total	124

* 492 is a Senior Assignment course.

Degree Requirements

Bachelor of Science

Biological Sciences Secondary Education Teacher Certification

General Education Requirements	43
The general education program requires 43 hours of general education credit, of which 13 credits satisfy the general education area natural science and mathematics requirement. These include a course in statistics. An overall grade point average of 2.5 is required for admission to the School of Education Teacher Certification Program. See the secondary education section of this catalog.	
Biology Requirements	34
120, 121, 220, 319	16
327, 340, 494	10
365, Ecology	4
Elective: 400-level course with a laboratory	4
Chemistry Requirements	18
CHEM 121a,b; 125a,b; 241a,b, 245	
Mathematics/Statistics Requirements	7
MATH 120 or 125	3
STAT 244 (meets general education statistics requirement)	4
Physics Requirements	13
PHYS 206a,b (or 211a,b and 212a,b)	10
PHYS 356, Astronomy	3
Science Requirement	3
SCI 451, Integrated Science	
Geography Requirement	3
GEOG 210, Physical Geography	
Professional Education Requirements	28
(See Secondary Education)	
Total	136

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:

- 1 BIOL 120, 121, 220, 319 (A grade of C or better is required in each of these courses before proceeding to the next course and as a prerequisite to courses numbered above 319).
- 2 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 adviser for details.

Combined Bachelor of Science and Master of Science Program (3+2 Program)

Juniors with a grade point average of 3.0 or better, with approval of the graduate committee in biology and the dean of the Graduate School, may pursue graduate work while completing the baccalaureate degree. Both degrees could be completed within five years under this arrangement. Please consult with the biology adviser for more details about this program.

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 four-year 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, or phone (618) 474-7170.

Chemistry

Distinguished Research Professor: Patrick, T.B.

Professors: Eilers, J.E.; Khazaeli, S.; O'Brien, L.C.; Patrick, T.B.; Vandegrift, V. (Chancellor)

Associate Professors: Dixon, R.P. (Chair); Johnson,

K.A.; McClure, J.R.; Shabangi, M.; Shaw, M.J.; Voss, E.J.

Assistant Professors: DeMeo, C.; Lu, Y.; Shabestary, N.; Wei, C.; Wiediger, S.D.

Students who want to major in chemistry should visit or call the Department of Chemistry (Science Laboratory Building, room 2339, telephone [618] 650-2042, <http://www.siu.edu/CHEMISTRY>) as soon as possible. They will be referred to a faculty adviser who will help them plan an academic program. Early advisement will enable students to complete their programs with minimum conflicts and within the shortest possible time.

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, Fourier-transform infrared spectroscopy, high pressure liquid chromatography, atomic absorption spectrometry, mass spectrometry, and ultraviolet/visible spectroscopy. Through advanced course work, 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

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 faculty adviser. Advisement is mandatory; majors are permitted to register each term only after their Course Request Forms have been approved by their departmental adviser. 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

- 1 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:
 - a Grade point average of 1.0 or below in any term;
 - b Cumulative grade point average of less than 2.0 in the major at any time;
 - c Withdrawal, incomplete, and a combination of failing grades in 50% or more of the courses for which the student is registered during two successive terms;
 - d Any combination of three withdrawal, incomplete, or failing grades in any single required course in the major discipline.
- 2 For readmission, students must meet the same admission requirements as students entering the program for the first time.
- 3 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.

Graduation Requirements

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

- a Earn a minimum of 124 hours (130 for Chemistry—Secondary Education with Certification) of acceptable credit with a cumulative grade point average of 2.0 or higher.
- b 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.
- c Earn a GPA of 2.0 or above in all major courses numbered above 299.
- d Complete at least 6 hours of SIUE credit in major courses numbered above 299 within 2 years preceding graduation.
- e 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.

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 advisers early in their junior year.

Degree Requirements

Bachelor of Science Chemistry

American Chemical Society (ACS) Certified

General Education Requirements 42-44

General education requires 42 to 44 hours of credit. Introductory and distribution general education courses in the area of natural sciences and mathematics are satisfied by required courses in the curriculum. A computer science or statistics course fulfills one of the skills course requirements. option B with a foreign language is strongly recommended.

Interdisciplinary and other Special Requirements 3-9

An interdisciplinary course (3 hours) and 6 hours from intergroup relations, international culture, or international issues are University requirements. Some of these can also be used to satisfy general education requirements.

Chemistry Requirements 48

CHEM 121a,b	8
CHEM 125a,b	2
CHEM 241 a,b	6
CHEM 245	2
CHEM 331	3
CHEM 335	1
CHEM 361 a,b	6
CHEM 365 a,b	3
CHEM 411	3
CHEM 415	2
CHEM 431	3
CHEM 435	1
CHEM 451a	3
CHEM 499	0

An additional 3 semester hours from the following chemistry courses: 419, 439, 441, 444, 449, 451b, 459, 469, 471, 479 3

An additional 2 semester hours from the following chemistry courses: 345, 396, 455, 496 2

Mathematics Requirements 10

MATH 150	5
MATH 152	5

Computer Science or Statistics Requirements 3

CS 140 or STAT 107 or 244 or 380 or 480	3
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Physics Requirements 10

PHYS 211 a, b	8
PHYS 212 a, b	2
Electives	12-14
Total	124

Degree Requirements

Bachelor of Science

Chemistry

General Education Requirements 42-44

The general education curriculum requires 42 to 44 hours of credit. Introductory and distribution general education courses in the area of natural sciences and mathematics are satisfied by required courses in the curriculum and a computer science or statistics course fulfills one of the skills course requirements. option B with a foreign language is strongly recommended.

Interdisciplinary and other Special Requirements 3-9

Chemistry Requirements 43

121a,b (8), 125a,b (2), 241a,b (6), 245 (2), 331 (3), 335 (1), 361a,b (6), 365a,b (3), 411 (3), 499 (0)	34
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An additional 6 semester hours from the following chemistry courses: 419, 431, 439, 441, 444, 449, 451a, 451b, 459, 469, 471, 479 6

An additional 3 semester hours from the following chemistry courses: 345, 396, 415, 435, 455, 496 3

Mathematics Requirements 10

MATH 150	5
MATH 152	5

Computer Science or Statistics Requirements 3

CS 140 or STAT 107, 244, 380 or 480	3
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Physics Requirements 10

PHYS 211 a, b	8
PHYS 212 a, b	2

Electives 17-19

Total 124

Degree Requirements: Bachelor of Science

Biochemistry American Chemical Society (ACS)

Approved Specialization

General Education Requirements 42-44

Introductory and distribution general education courses in the area of natural sciences and mathematics are satisfied by required courses in the curriculum and a computer science or statistics course fulfills one of the skills course requirements. option B with a foreign language is strongly recommended.

Interdisciplinary and other Special Requirements 3-9

An interdisciplinary course (3 hours) and 6 hours from Intergroup Relations, International Culture, or International Issues are University requirements. Some of these can also be used to satisfy the general education requirements.

Chemistry requirements 55

CHEM 121a,b	8
CHEM 125a,b	2
CHEM 241 a,b	6
CHEM 245	2
CHEM 331	3
CHEM 335	1
CHEM 361 a,b	6
CHEM 365 a,b	3
CHEM 396	2
CHEM 411	3
CHEM 415	2
CHEM 431	3
CHEM 435	1
CHEM 451a&b	6

CHEM 455	2
CHEM 459	3
CHEM 496	2
CHEM 499	0
Biology requirements.....	16
BIOL 120	4
BIOL 121	4
BIOL 220	4
BIOL 319	4
Mathematics requirements.....	10
MATH 150#	5
MATH 152	5
Computer Science or Statistics requirements.....	3
CS 140 or STAT 107 or 244 or 380 or 480*	3
Physics requirements.....	10
PHYS 211 a#, b\$.....	3
PHYS 212 a, b.....	2
Total.....	124

*used as skill course; # used as intro course; \$ used a distance course. 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.

Degree Requirements

Bachelor of Science

Chemistry Secondary Education Teacher Certification

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 certification meet with an advisor in the Office of Clinical Experience, Certification and Advisement of the School of Education for admission to the teacher education program.

General Education Requirements 42-44
The general education curriculum requires 42 to 44 hours of credit. Students must select option A with a statistics course. Students seeking teacher certification also must meet specific general education and professional education requirements. See the secondary education section of this catalog for details. An overall grade point average of 2.5 is required for admission to the School of Education teacher certification program. Scheduling for the third and fourth years involves coordination between the Chemistry and Secondary Education departments. Students should contact the Chemistry Department's undergraduate education coordinator for specific curriculum details.

Interdisciplinary Requirements	3
Chemistry Requirements	36
CHEM 121a,b	8
CHEM 125a,b	2
CHEM 241a,b	6
CHEM 245	2
CHEM 331	3
CHEM 335	1
CHEM 361a	3
CHEM 365a	2
CHEM 451a	3
CHEM 494	3
CHEM 499	0
Additional 3 semester hours from chemistry courses numbered 300 or above	3
Science Requirements	3

SCI 451	3
Professional Education Requirements	28
(See Secondary Education)	
Statistics Requirements	3
STAT 107 or 244 or 380 or 480	3
Mathematics Requirements	10
MATH 150	5
MATH 152	5
Physics Requirements	10
PHYS 211a,b	8
PHYS 212a,b	2
(or PHYS 206a,b-10)	
Biology Requirements	4
BIOL 120	4
Total	130

Degree Requirements

Bachelor of Arts

Chemistry

General Education Requirements 42-44
The general education curriculum requires 42 to 44 hours of credit. Introductory and distribution general education courses in the area of natural sciences and mathematics are satisfied by required courses in the curriculum. A computer science or statistics course fulfills one of the skills course requirements. An interdisciplinary course (3 hours) and 6 hours from intergroup relations, international culture, or international issues are University requirements. Some of these may also be used to satisfy the general education requirements.

Foreign Language Requirements	8
Chemistry Requirements	39
121a,b (8), 125a,b (2), 241a,b (6), 245 (2), 331 (3), 335 (1), 361a (3), 365a (2), 499 (0)	27
An additional 9 semester hours from the following chemistry courses: 361b, 411, 419, 431, 439, 441, 444, 449, 451a, 451b, 469, 471, 479	9
An additional 3 semester hours from the following chemistry courses: 345, 365b, 396, 415, 435, 455, 496	3
Mathematics Requirements	10
MATH 150	5
MATH 152	5
Computer Science or Statistics Requirements	3
CS140 or STAT 107 or 244 or 380 or 480	3
Physics Requirements	10
PHYS 211 a, b	8
PHYS 212 a, b	2
(or PHYS 206a,b) (10)	
Approved Supporting Courses or Minor*	12-21
Electives	0-9
Total	124

* 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.

Degree Requirements

Bachelor of Arts

Biochemistry Specialization

General Education Requirements 42-44
Introductory and Distribution Courses in the area of Natural Sciences and Mathematics are satisfied by required courses in the curriculum and a Computer Science or Statistics course fulfills one of the Skills courses.

Interdisciplinary and other Special Requirements 3-9
An Interdisciplinary Course (3 hours) and 6 hours from Intergroup Relations, International Culture, or International Issues are University requirements. Some of these can also be used to satisfy the General Education requirements.

Foreign Language Requirements 8
Chemistry Requirements 45

CHEM 121a,b 8
CHEM 125a,b 2
CHEM 241a,b 6
CHEM 245 2
CHEM 331 3
CHEM 335 1
CHEM 361a 3
CHEM 365a 2
CHEM 451a&b 6
CHEM 455 3
CHEM 459 3
CHEM 499 0

An additional 3 semester hours from the following:
Chemistry courses: 3
361b, 411, 419, 431, 439, 441,
444, 449, 469, 471, 479

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

Biology requirements: 16
BIOL 120 4
BIOL 121 4
BIOL 220 4
BIOL 319 4

Mathematics requirements: 10
MATH 150 5
MATH 152 5

Computer Science or Statistics requirements: 3
CS 140 or STAT 107 or 244 or 380 or 480 3

Physics requirements: 10
PHYS 211a, b 8
PHYS 121a 2
(or PHYS 206a, b) (10)

Electives: 9-11
Additional chemistry and biology* courses

Total **124**

*Additional semester hours from the following biology courses:

BIOL 325, 331, 335, 340

**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.

Degree Requirements

Bachelor of Art

Chemistry Specialization in Medical Science**

General Education Requirements 42-44
The general education curriculum requires 42 to 44 hours of credit. Introductory and distribution general education courses in the area of natural sciences and mathematics are satisfied by required courses in

the curriculum. A computer science or statistics course fulfills one of the skills course requirements.

Interdisciplinary and other Special Requirements 3-9
An Interdisciplinary course (3 hours) and 6 hours from intergroup relations, international culture, or international issues are University requirements. Some of these can also be used to satisfy the general education requirements.

Foreign Language Requirements 8
Chemistry Requirements 39

CHEM 121a,b 8
CHEM 125a,b 2
CHEM 241a,b 6
CHEM 245 2
CHEM 331 3
CHEM 335 1
CHEM 361a 3
CHEM 365a 2
CHEM 451a&b 6
CHEM 499 0

An additional 3 semester hours from the following:
Chemistry courses: 361b, 411, 419, 431, 439, 441,
444, 449, 469, 471, 479 3

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

Biology Requirements 10
Biology 120 4
Additional 6 semester hours from the following
Biology courses: BIOL 121, 220, 319, 325, 331,
335, 340 6

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

Mathematics Requirements 10
MATH 150 5
MATH 152 5

Computer Science or Statistics Requirements 3
CS 140 or STAT 107 or 244 or 380 or 480 3

Physics Requirements 10
PHYS 211a,b 8
PHYS 121a,b 2
(or PHYS 206a,b-10)

Electives 9-11
(Additional chemistry and biology recommended)

Total **124**

Degree Requirements: Chemistry Minor*

A minor in chemistry requires 24 hours with a grade point average of 2.0 or higher as follows:

CHEM 121a,b 8
CHEM 125a,b 2
CHEM 241a,b 6
CHEM 245 2
Additional 6 semester hours from chemistry courses
numbered 300 or above 6
Total **24**

Note: at least 6 of the 24 hours must be SIUE credit.

- * 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.

Combined Bachelor of Arts 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. 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 to the Office of Admissions and Records, Southern Illinois University School of Dental Medicine, 2800 College Avenue, Alton, IL 62002, or phone (618) 474-7170.

Economics

Professors: Hafer, R.W. (Chair); Kutan, A.M.; Meisel, J.B.

Associate Professors: Bharati, R.C.; Navin, J.C.

Assistant Professors: Demirer, R.; Evrensel, A.; Gupta, M.; Hackard, J.C.; Jia, J.; Spivey, C.

Instructors: Beck, H.L.; Pettit, M.A.; Phillips, R.R.; Richards, W.D.; Sullivan, T.S.; Wolff, L.A.

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 adviser.

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 adviser. 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 adviser 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 Requirements

Bachelor of Arts or Bachelor of Science Economics

General Education Requirements	42-44
Must include MATH 120 and CMIS 108 or CS 108. The bachelor of arts program must include eight hours of foreign language. No economics courses will count toward the introductory or distribution general education requirements. The intergroup relations and international requirements of the general education program may be satisfied with either distribution general education courses or with major courses and are presumed so below.	
Total Economic Hours Required	34
ECON 111*, 112*, 301*, 302*, 415* or 417*	15
ECON Electives	12
MS 250*, MS 251*	7
Minor*	18
The minor must be approved by the student's adviser.	
Electives	28-30
Total	124

* Grade of C or better required in courses with asterisk (*).

** Students seeking a degree in economics must select a minor from business, mathematics or social science. Other minor concentrations must be approved by an adviser in the Department of Economics and Finance.

ECON 327 may be counted as both an Intergroup Relations(IGR) course and an economics elective.

ECON 361 or 461 may be counted as both an International (II) course and an economics elective.

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

Exit Requirements

Students completing a degree in economics are required to maintain a 2.0 in economics courses and a cumulative 2.0 grade point average. Students must complete all economics courses in regularly scheduled classes. (No credit is granted for correspondence or extension courses.)

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.

To exit from the program, candidates must present to the faculty their research projects from ECON 415 or ECON 417.

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.

English Language and Literature

Professors: Berger, C.; Farley, A.H.; Funk, A.; Meyering, S.L.; Ragen, B.A.; Redmond, E.B.; Ruff, N.K.; Schaefer, R.P. (Acting Associate Dean); Skoblow, J.; Smithson, I.; Voller, J.G.

Associate Professors: Aktuna, S.; Hardman, J.C.; LaFond, L. (Chair); McGee, S.J.; Pendergast, J.; Savoie, J.; Schmidt, G.; Sivanarayanan, A.; Tickoo, A.

Assistant Professors: Anderson, J.; Fanetti, S.; Johnson, M.; Ramsby II, H.; Seltzes, C.; Vogrin, V.A.

The study of literature and of the English language encourages appreciation of the significant ideas of the past and present, provides training in effective writing, and offers practical experience in logical and aesthetic analysis. These skills are of particular value in a world in which specific technical capabilities may be threatened by obsolescence. Students prepared in English language and literature are equipped to acquire essential technical skills and to assimilate knowledge crucial to technological and computer-based capabilities.

Career Opportunities

English majors are well prepared for graduate and professional studies in business, law, and library

science. In addition, they may find career opportunities in public relations, journalism, teaching, consulting and editing, particularly when an English major is combined with a minor or significant course work in art and design, journalism, mass communications, or speech communication. Advertising agencies, book publishers, and institutions such as universities, hospitals, major corporations, and federal agencies that have organizational publications employ creative and technical writers, researchers, and editors. Articles by free-lance writers are published in many local and national magazines and newspapers. Although job opportunities in these areas are highly competitive, students who can express themselves clearly and document their ideas through careful research will receive thoughtful consideration from potential employers.

Grade Policy

Only courses in which students receive a C or better will be accepted for credit toward the English major or minor.

Undergraduate Handbook

Students considering a major or minor in English may obtain the Undergraduate Handbook for English Majors and Minors, as well as the course description bulletin, from the Department of English Language and Literature, Peck Hall, room 3206.

Degree Requirements

Bachelor of Arts

English

General Education Requirements	42-44
(For a bachelor of arts degree in English, students must select option B in the general education skills area.)	
Required Courses	9
ENG 200 Introduction to Literary Study	3
ENG 208 Survey of British Literature:	
Beginnings to 1789	3
ENG 497a Senior Seminar	3
Required Distributions	18
Two additional survey courses from 209, 211, 212	6
One Major Authors course from 307, 404, 471a,b, 473	3
One 400-level course in American Literature	3
One course in literary theory from 301, 495	3
One course in language systems from 369, 400, 403	3
Required Electives	9
Any English course numbered 200 or higher. Complete program can include no more than 15 hours at the 200 level and must include at least 15 hours at the 400 level.	
Minor	18-21
Foreign Languages (all hours in the same language)	8
Additional Electives	15-20
Total	124

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

Degree Requirements

Bachelor of Science

English

Secondary Education Teacher Certification

General Education Requirements	42-44
Requirements for the Major in English	39
Introduction to Literary Study (200)	3
Surveys (208, 209, 211, 212)	12
Chaucer/Shakespeare/Milton	
(307, 404, 471a, 471b, 473)	3
Language Systems (369, 400)	6
Writing (290, 392, 393, 490, 491, 492, 493)	
One must be 490.	6
Teacher Preparation (475, 485)	6
Senior Seminar (497a)	3
Minor or approved supporting courses	18-21
Professional Education Courses	28
Total	130-132

Of the 39 hours required in English courses, at least 18 must be 400-level courses, and no more than 18 may be at the 200 level. English 499 may not count toward the 400-level course requirements. At least 9 hours must be in English literature courses, and at least 6 hours must be in American literature courses. Only courses in which students receive a C or better will be accepted for credit toward the English major. English education majors must also maintain a cumulative B average in English courses.

English students who apply for language arts certification through the Department of English Language and Literature also must, within 30 days, apply for the speech communication education minor through the Department of Speech Communication. Minor advisement by the director of speech communication education, available at (618) 650-3090, is mandatory.

Three terms (including summer) before the semester in which they plan to begin student teaching, students 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 Teaching Screening Process," described in detail in the English Department's Undergraduate Handbook for Majors and Minors.

The bachelor of science major in English fulfills Illinois and Missouri state certification requirements. Anyone interested in an endorsement to teach English as a second language should contact the ESL endorsement adviser.

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 undergraduate adviser. 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, 441a and 441b. 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 (besides 441a and 441b). 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 Adviser. English majors who satisfy the Creative Writing Minor requirements may substitute any English elective for the three-hour writing requirement.

Linguistics Minor Requirements

The linguistics minor requires a minimum of 18 hours. Students may meet this requirement by selecting from among the following 300- and 400-level courses: English 369, 370, 400, 403, 405, 406, 408, 409, 416, 468, 470 and 472. At least one course should be selected from each of the following major areas of linguistic study: phonology (370, 408); historical change (403, 406); and syntax (369, 409). For classes at the 400 level, English 400 is strongly suggested as an introductory course. Students who wish to pursue the linguistics minor are encouraged to take English 207 as part of their general education course work. 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 three-hour language systems requirement.

Foreign Languages and Literature

Professors: Carstens-Wickham, B. (Chair); Griffen, T.D. (retired); Springer, C. (Associate Dean, College of Arts and Sciences)

Associate Professors: Bueno, J.L.; Bueno, K.A.; Fonseca, E.; Mann, J.D.; Morrison, F.M.; Pallemans, G.S.; Zaytzeff, V.

Assistant Professors: Solares, M.; Simms, D.

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 in one or more foreign languages will enjoy a competitive edge in the multicultural work force 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.

Courses Offered by the Department

Courses offered by the Department of Foreign Languages and Literature are designed to provide students with insights into the culture and literature of foreign countries while they develop fluency in a second language. The study of a foreign language ranges from an introductory sequence through a focus (15), minor (21) or major (37) concentration and represents an integral part of a broad, internationally enlightened education. Foreign language proficiency also increases student understanding and command of their native language. Students must successfully complete 101 and 102, or equivalent, in French, German, or Spanish.

The department offers both major and minor concentrations or a focus in Chinese, French, German, and Spanish, leading to a bachelor of arts degree. Language courses in Greek, Italian, Latin, and Russian also are offered, as well as courses in Celtic studies.

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. Please contact the department for more information.

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.

Degree Requirements

Bachelor of Arts*

Foreign Languages and Literature

General Education Requirements	44
Requirements for a Major in Foreign Language	37

While all languages require the same number of hours (37), specific requirements for a major may vary among the languages.

French and German Majors

FL 111a,b **, 201**, 202**, 301; 351**, 352**, 400a,b	25
Electives in 300-400 level courses	12

Spanish Majors

201**, 202**, 301, 302, 400	19
Electives in 300-400 level courses	18
Electives	39-43
Total	124

Advanced electives will normally include at least two courses in culture and two in literature.

400 usually is taken during the last semester of major course work.

* Students seeking teacher certification should consult with their adviser.

** May satisfy general education requirements.

Course work for the teaching field and for professional education is coordinated by the College of Arts and Sciences and the School of Education. For more information about applying for a major, consult the secondary education adviser or the adviser in the teaching discipline.

Degree Requirements

Bachelor of Science

Foreign Languages and Literature

Secondary Education Teacher Certification

General Education Requirements	42-44
Some general education requirements may be satisfied while completing this major concentration. Also note that general education requirements for certification differ from University requirements. See the secondary education section of this catalog for details.	
Requirements for a Major in Foreign Language	40-42
Electives, Second Teaching Field	9-20
Professional Education Courses	28

See Secondary Requirements

Total	125
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While all languages require the same number of hours (40-42), specific requirements for a major vary among the languages. A "B" average in the major is required for certification.

French and German Majors

FL 111a,b **, 201**, 202**, 301; 351**, 352**, 400a,b	25
FL 486	3
Electives in 300-400 level courses	12-14

Spanish Majors

201**, 202**, 301; 302, 308, 400	23
*FL 486	3
Electives in 300-400 level courses	15-16

Advanced electives normally will include at least two course in culture and two in literature.

400 usually is taken after the completion of all major courses.

Note: A "B" (3.0) average in the major is required for secondary education teacher certification. In order to register for student teaching in foreign languages (CI 352g), students must successfully complete a student teaching interview. Students should send an application and dossier to Dr. Kathleen Bueno by 4:30 p.m. on Friday of the first week of classes of the semester prior to the semester in which the student plans to student teach. For more information about the interview, the application form and the dossier, please access Dr. K. Bueno's homepage at www.siu.edu/~kbueno.

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; at least one elective must be in literature.

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 advisers.

** 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.

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 certification meet with an adviser in the Office of Clinical Experience, Certification and Advisement of the School of Education for admission to the teacher education program.

Program Completion 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 secondary education teacher certification.

Geography

Professors: Pearson, R.S. (Chair); Shaw, W. (Associate Dean); Zhou, B.

Associate Professors: Hildebrandt, M.L.; Hu, S.; Odemerho, F.O.; Starr, M.J.

Assistant Professors: Acheson, G.; Grossman, M.J.; Hume, S.E.; Springer, C.E.

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, concerned with the Earth as the home of people, stresses the locational 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. Students may emphasize physical aspects of the environment, cartography/geographic information systems, economic geography, human settlements,

and cultural geography.

Geography majors are encouraged to consult with their advisers and should consider using elective hours to expand a particular area of interest. Physical geographers should consider a minor or an area of specialization in the physical sciences; the cartographer and computer-oriented student might consider a minor or an area of specialization in mathematics or computer science.

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.

Degree Requirements

Bachelor of Arts or Bachelor of Science Geography

General Education Requirements 42-44

Some general education requirements may be satisfied while completing the major concentration. Also note that students seeking teacher certification must take specific general education requirements. See the secondary education section of this catalog for details. Candidates for the bachelor of arts degree must elect option B in the general education skills area.

Geography Core Requirements 36

GEOG 205 Human Geography
GEOG 210 Physical Geography
GEOG 201 World Regions
GEOG 320 Cartography
GEOG 321 Quantitative Techniques

After completing GEOG 205, the student must select two human geography courses from among the following: 300, 301, 400, 401, 402, 406, 450 (human topic)

After completing GEOG 210 the student must select two physical geography courses from among the following: 310, 312, 314, 315, 316, 410, 411, 412, 413, 450 (physical topic)

After completing GEOG 201, the student must select one regional geography course from among the following: 330, 331, 332, 333, 334, 450 (regional topic)

After completing GEOG 320, the student must select one geography techniques course from among the following: 322, 418, 422, 423, 424, 425, 450 (techniques topic)

499 (3 hour) Senior Assignment. Prerequisite 321. Senior assignment is completed over a two-semester period. A grade of DE (deferred) is assigned at the end of the first semester.

Minor or Area of Specialization	18
Geography majors may complete an existing minor within another department or may select the 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 a unique 18 hours of course work. 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 the area adviser and approved by the department chair. All courses taken as part of an area of specialization require a minimum grade of C.	
Electives	26-28
Total	124

Minor in Geography Requirements (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 the undergraduate adviser in geography.

Historical Studies

Professors: Frick, C.; Hansen, S.L.
(Associate Provost & Dean of Graduate Studies);
Taylor, J.A

Associate Professors: Cheeseboro, A.Q. (Chair);
Jordan, T.; McClinton, R.; Ruckh, E.; Tamari, S.L.;
Thomason, A.K.

Assistant Professors: Bradley, S.M.; Fowler, L.E.;
Hinz, C.; Hoenicke Moore, M.M.; Moore, M.E.; Stacy,
Jason

Instructor: Eubanks, L.A.; Harrison, Victoria

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 adviser in history as soon as possible after applying for a major.

Career Opportunities

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, 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 the public schools may choose either a bachelor of arts or a bachelor of science degree with a major in history. Any one 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 who plan to pursue graduate study.

Degree Requirements

Bachelor of Arts or Bachelor of Science History

General Education Requirements 42-44

Some general education requirements may be satisfied while completing the major concentration. For the bachelor of arts degree in history, students must select option B in the general education skills area. This option requires study of at least two years of a foreign language. The department strongly encourages students to study another language.

Major Requirements 36

Four courses from HIST 111a, b, 112a, b, 113, 114, 130, 200, 201 (two must be from the European or world surveys and two from the United States surveys. Students preparing for certification to teach history or social studies must select HIST 112a, b.) 12

Six courses elected by the students at the upper-level (300-499); Topical courses (300) may be substituted for up to six credit hours of this requirement; topical courses (400) may be substituted for up to nine credit hours of this requirement; at least three credit hours must be history of an area outside of Europe and the United States. Students preparing for certification to teach history or social studies must select History / Pedagogy, HIST 323, as one of their six upper-level courses. 18

HIST 301 (Historical Methods) 3

HIST 401 (Historical Research – Senior Assignment) 3

Minor* 18-21

Electives* 8-23

Total 124

* Students seeking a bachelor of arts or bachelor of science degree are required to have a minor.

Transfer Courses

All history courses successfully completed at community colleges will transfer as meeting only lower division requirements (100- or 200-level courses). History at SIUE requires two American history survey courses and two courses from either European or world history surveys. Students not meeting the distribution requirement may be required to take additional survey courses.

Program Completion Requirements

To meet major requirements, students must receive a grade of C or better in all history courses taken. Students seeking a bachelor of arts in historical studies must complete at least two years of study of a single foreign language at the college level.

Minor Requirements

The minor requires that students select three courses from history 111a, b, 112a, b, 113, 114, 130, 200, 201. At least one of these courses must be in European or world history, and at least one must be in United States history. In addition, four courses at the upper level (300-499) must be completed. History mini-courses (300 level) may be substituted for up to six credit hours of this requirement. Topical courses numbered as HIST 400 may be taken for up to nine hours of this requirement, as long as no topic is repeated. At least three credit hours must be in either World History (HIST 112) or in an upper-level course in an area other than European and United States history. Students must receive a grade of C or better in all history courses taken to meet the Strong minor requirements in social sciences.

Degree Requirements

Bachelor of Arts or Bachelor of Science History

Secondary Education Teacher Certification

Students who intend to teach at the secondary level may choose either the bachelor of arts or the bachelor of science degree with a major in historical studies. All students seeking certification must take two semesters of world history and social science/ pedagogy, which is taught in the Department of History, as one of their upper-level courses taken for the major.

The major constitutes the teaching field of concentration. Students pursuing this degree also must complete the Strong minor in social sciences as outlined below. Students must receive a grade of C or better in all courses taken to meet requirements in the Strong minor in social sciences:

ANTH 111 Introduction to Anthropology	3
SOC 111 Introduction to Sociology	3
ECON 111 Macroeconomics	3
ECON 112 Microeconomics	3
GEOG 201 World Regions	3
GEOG 205 Human Geography	3
GEOG 210 Physical Geography	3
POLS 111 Introduction to Political Science	3
POLS 112 American Government and Politics	3
POLS 300 Political Analysis, or POLS 340 American Presidency,	3
or POLS 342 Issues in American Public Policy,	

Two of these 111 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 in this program, including transfer students and those who already have a bachelor's degree:

- 1 Certification requires a 3.00 GPA in history courses, including those completed at past institutions.
- 2 Completion of Social Sciences/Pedagogy (HIST323) before taking CI352L, student teaching, history and two semesters of world history.
- 3 Approval by the teacher education committee of the Department of Historical Studies, three semesters (including summer) prior to the semester in which they plan to begin student teaching

Students also must complete the required program of professional education requirements in the School of Education for certification. Therefore, it is essential that any student desiring teacher certification meet with an adviser in the Office of Clinical Experience, Certification and Advisement of the School of Education or admission to the teacher education program.

Mass Communications

Professors: Donald, R.R., Maynard, R.H.; Murphy, P.D. (Chair)

Associate Professors: Hicks, G.R.,

Assistant Professors: Hale, D.K.; Ibroscheva, E.N.; Kapatamoyo, M.; Voss, K.; Yu, J.

Instructors: Byers, C.

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 industries in the United States: mass communication and media arts.

Our curriculum seeks to educate students so that they can 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 growing and changing with the times.

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 four courses consists of an introduction to mass communication plus three 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 three introductory skills courses, MC 202 (Writing for the Media), MC 203 (Audio Production for the Media) and MC 204 (Video Production for the Media), students learn essential analytical and artistic skills in writing 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 four courses. The options are: print and electronic journalism, television/radio, corporate and institutional media, and media advertising. The keystone courses in each professional option are essential to developing proficiency in a specific media concentration. A choice of three additional courses from the remaining six to eight courses in an option permits a faculty adviser 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 an understanding of the social, political, legal, economic, artistic and technological environment in which media products are produced, delivered and consumed. Further, the advanced core 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 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 two open major elective courses. This provision enables students not only to explore their own cross-media educational interests, but also, with aid of faculty advisers, 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 is also required.

An Ideal Location

The St. Louis metropolitan area is the 21st largest media market in the United States. SIUE's mass communications 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 about topics as varied as the job search, television and film lighting, independent video producing in St. Louis, and a dialogue with a St. Louis Post-Dispatch columnist are conducted by working professionals and faculty.

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, sport writers or photojournalists on newspapers, graduates may land their first jobs with news wire services, organizational and professional newsletters, national, regional and local magazines, trade periodicals and the World Wide Web publications. Also, many corporations value the skills the SIUE department teaches in writing, editing, layout and design. 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 World Wide Web 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 World Wide Web, and even on the bags you use to carry home your purchases. Mass communications 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 there are many more jobs "out there" than they imagined when they 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 World Wide 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. They are trained in interactive multimedia, World Wide 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 and emerging digital media jobs yet unnamed. SIUE students learn tried-and-true mass communication basics as well as the most advanced digital media techniques needed to excel in this brave new world.

Admission, Retention, and Graduation Requirements

Except for incoming freshmen, students wishing to apply for a major in mass communications are required to have at least a 2.2 overall grade point average. Mass communications majors must maintain a 2.2 overall grade

point average. Students in the mass communications major and minor must earn a C or better grade in both MC 201 and 202 to declare a major or minor in the department. Only 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.

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, he/she must petition the Mass Communications Department faculty for the opportunity to attempt the course again.

All mass communications majors must choose Philosophy 481, Media Ethics, as part of their fine arts and humanities general education requirement; all mass communications majors who choose general education skills courses option A must choose Speech Communication 105, Public Speaking.

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 SPC 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 80 semester hours in courses outside the Department of Mass Communications. Of these, no fewer than 65 semester hours must be completed in courses in the basic liberal arts and sciences. Liberal arts and sciences courses at SIUE include any course taught in the College of Arts and Sciences, the Department of Economics, and the Department of Psychology.

Degree Requirements Bachelor of Science or Bachelor of Arts Mass Communications

Requirements for a Major in Mass Communications.....	39
General Education	42-44
Introductory Core	12

MC201 (Mass Media in Society), 202 (Writing for the Media), 203 (Audio Production for the Media), 204 (Video Production for the Media)	9
Advanced Core	9
MC401 (Media Law and Policy), 403 (Media Critical Theory), 481 (Internship/Senior Portfolio)	
Professional Option	
Choose one of the following Mass Communications options:.....	12

Corporate and Institutional Media: 402 (Media Administration) and three of the following courses chosen in consultation with a Mass Communications Department adviser: 321 (Feature Writing), 323 (Publication Layout and Design), 330 (Advanced Broadcast Writing), 422 (Writing for the Corporate & Institutional Market), 431 (Corporate & Non-broadcast Video), 441 (Multimedia Use in Mass Media), 451 (Research Methods in the Mass Media), 453 (Transnational Media)

Media Advertising: 325 (Fundamentals of Advertising) and three of the following courses chosen in consultation with a Mass Communications Department adviser: 323 (Publication Layout and Design), 326 (Advertising Copywriting and Design), 334 (Electronic Media Advertising), 342 (Photojournalism and Digital Imagery), 421 (Advertising Campaigns), 441 (Multimedia Use in the Mass Media), 451 (Research Methods in the Mass Media)

Print and Electronic Journalism: 324 (Public Affairs Reporting) and three of the following courses chosen in consultation with a Mass Communications Department adviser: 321 (Feature Writing), 322 (Copyediting), 323 (Publication Layout and Design), 330 (Advanced Broadcast Writing), 332 (Electronic Media News), 342 (Photojournalism and Digital Imagery), 424 (The Literature of Journalism) or 440 (Visual Media Analysis), 441 (Multimedia Use in Mass Media)

Television/Radio: 330 (Advanced Broadcast Writing) and three of the following courses chosen in consultation with a Mass Communications Department adviser: 331 (Electronic Media Performance), 333 (Advanced Video Writing and Production), 334 (Electronic Media Advertising), 440 (Visual Media Analysis), 402 (Media Administration), 423 (Advanced Topics in Writing for the Media), 431 (Corporate and Non-broadcast Video), 441 (Multimedia Use in Mass Media), 454 (Documentary Media)

Mass Communications Electives	6
Minor Outside of Mass Communications	18-21
University Electives	30
Total	124

Mass Communications Minor

The mass communications minor requires MC 201 and 202 and additional courses selected in consultation with a departmental minor adviser for a total of 21 hours.

Mathematics and Statistics

Professors: Jarosz, K. (Chair); Ledzewicz, U.; Lu, C.; Rigdon, S.E.; Sewell, E.C.

Associate Professors: Agustin, Z.; Agustin, M.; Hasty, M.; Neath, A.A.; Parish, J.L.; Pelekanos, G.; Voepel, T.M.

Assistant Professors: Chew, S.F.; Fick, K.M.; Leem, K.H.; Musa, M.; Song, M.; Staples, S.; Weyhaupt, A.

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.

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 advisers 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.

Admission

To be admitted to the mathematics and statistics program, students must satisfy one of the following:

1. 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.
2. 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.

Academic Status

A student may be dropped from this program for any one of the following circumstances:

- a Grade point average of 1.0 or below in any term;
- b Cumulative grade point average of less than 2.0 in courses in mathematics, statistics and operations research at any time;
- c Withdrawal, incomplete, or a combination of failing grades in 50% or more of the courses for which the student is registered during two successive terms;
- d Any combination of three grades of D, F, UW, WP, or WF in any single required course in mathematics, statistics, or operations research.

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

Degree Requirements

Bachelor of Arts or Bachelor of Science Mathematics

The distinction between the bachelor of arts and bachelor of science degrees through the Department of Mathematics and Statistics is the language requirement. 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.

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:

- a Earn a minimum of 124 hours of acceptable credit with a cumulative grade point average of 2.0 or higher;
- b Complete at least 12 hours of SIUE credit in major courses numbered 300 or above with a cumulative GPA of 2.0 or higher;
- c 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;
- d Complete at least 6 hours of credit in mathematics, statistics, or operations research courses numbered above 299 at SIUE 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.

The Mathematics Core

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 140 or 141 and Physics 211a and 212a also is required for all programs. These courses total 32 hours, of which 8 are applicable to general education requirements. (Physics 211a satisfies 4 hours of the introductory general education requirements. Computer Science 140 or 141 satisfies 4 hours of the skills requirement.)

Degree Requirements

Bachelor of Arts or Bachelor of Science Mathematical Studies

Specialization in Mathematical Sciences

General Education Requirements	42-44
The general education curriculum requires 42 or 44 hours of general education credit. The supporting mathematics and science courses required for this major satisfy 9 hours of the general education requirements. For the bachelor of arts degree, skills option B (8 hours of foreign language) is required.	
Mathematics Core Requirements	23
MATH 150, 152, 223, 250, 321, 350	
Mathematics Specialization	21
MATH 320, 420, 421, either 435 or 437, 450, 451, and one additional mathematics course at the 400 level	
Science Requirements	26
CS 140 or 141, PHYS 211a,b and 212a,b, and one additional	

300-level course in physics, chemistry, biology, or computer science; 9 additional hours in mathematics, statistics, operations research, biology, chemistry, physics or engineering	
Senior Seminar and Senior Project	4
MATH 498, 499	
Free Electives	15-17
Eight hours must be in foreign language for the bachelor of arts degree	
Total	124

Degree Requirements

Bachelor of Arts or Bachelor of Science

Mathematical Studies

Specialization in Applied Mathematics

General Education Requirements	42-44
The general education curriculum requires 42 or 44 hours of general education credit. The supporting mathematics and science courses required for this major satisfy 9-12 hours of the general education requirements. For the bachelor of arts degree, skills option B (8 hours of foreign language) is required.	
Mathematics Core Requirements	23
MATH 150, 152, 223, 250, 321, 350	
Required Mathematics Courses	15
MATH 305, 451, 464, 465, 466	
Mathematics Electives	9
Students should choose one of the following options:	
a) MATH 320 and two additional courses selected from MATH 421, 437, 450a,b, OR 440, 441, 442, STAT 480a,b	
b) STAT 380 and two additional courses selected from MATH 421, 437, 450a,b, OR 440, 441, 442.	
c) STAT 480a,b and one additional course selected from MATH 421, 437, 450a, OR 440.	
d) MATH 421 and two additional courses selected from MATH 437, 450a,b, OR 440, 441, 442, STAT 480a,b.	
Science Requirements	20-24
CS 140 or 141; PHYS 211a,b, and 212a,b, and two additional courses in the sciences or engineering	
Senior Seminar and Senior Project	4
MATH 498, 499	
Free Electives	16-23
Eight hours must be in foreign language for the bachelor of arts degree	
Total	124

Degree Requirements

Bachelor of Arts or Bachelor of Science

Mathematical Studies

Specialization in Statistics

General Education Requirements	42-44
The general education curriculum requires 42 or 44 hours of general education credit. The supporting mathematics and science courses required for this major satisfy 6 hours of the general education requirements. For the bachelor of arts degree, skills option B (8 hours of foreign language) is required.	
Mathematics Core Requirements	23
MATH 150, 152, 223, 250, 321, 350	
Science Requirements	9
CS 140 or 141; PHYS 211a, 212a	
Required Statistics Courses	9
STAT 480a,b, 482	
Statistics-Related Electives	12

Any four courses chosen from STAT 478, 481, 483, 484, 485, 486, 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.	
Supporting Courses	18
Either a minor, or nine additional hours of mathematics, statistics, or operations research and nine hours of supporting courses approved by the adviser.	
Senior Seminar and Senior Project	4
MATH 498, 499	
Free Electives	11-13
Eight hours must be in Foreign Language for the bachelor of arts degree	
Minimum Total Requirement	124

Degree Requirements

Bachelor of Arts or Bachelor of Science

Mathematical Studies

Specialization in Actuarial Science

General Education Requirements	42-44
The general education curriculum requires 42 or 44 hours of general education credit. The supporting mathematics and science courses required for this major satisfy 15 hours of the general education requirements. For the bachelor of arts degree, skills option B (8 hours of foreign language) is required.	
Mathematics Core Requirements	23
MATH 150, 152, 223, 250, 321, 350	
Science Requirements	9
CS 140 or 141; PHYS 211a, 212a	
Required Courses for Actuarial Science	24
STAT 480a,b; 482, 486, MATH 305, 340, 465; Operations Research 441	
Related Electives	6
Any two courses selected from STAT 478, 485; Operations Research 442; MATH 466	
Courses in Business Administration	21
Econ 111, 112; ACCT 200, 210; FIN 320, 420	
Senior Seminar and Senior Project	4
MATH 498, 499	
Free Electives	8-10
Eight hours must be in foreign language for the bachelor of arts degree	
Total	124

Degree Requirements

Bachelor of Science

Mathematics

Secondary Education Teacher Certification

General Education Requirements	42-44
The general education curriculum requires 42 or 44 hours of general education credit. The supporting mathematics and science courses required for this major satisfy 6 hours of the general education requirement. For the bachelor of arts degree, skills option B (8 hours of foreign language is required). An overall grade point average of 2.5 is required for admission to the School of Education teacher certification program.	
Mathematics Core Requirements	23
150, 152, 223, 250, 321, 350	
Science Requirements	9
CS 140 or 141; PHYS 211a and 212a	
Required Courses	15

MATH 311, 320, 400, 435, STAT 380	
Electives	6
Choose one of the following options:	
a) One of Math 305, Math 315 or 365, and two 400-level MATH, STAT, or operations research courses	
b) Two 400-level MATH, STAT, or operations research courses	
Professional Education Requirements	28
See Secondary Education	
Senior Seminar and Senior Project	4
MATH 498, 499	
Free Electives	1
Total	124

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 certification meet with an adviser in the Office of Clinical Experience, Certification and Advisement of the School of Education for admission to the teacher education program.

Senior Project

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 Senior Assignment Committee, established for this purpose, 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.

Minors in Mathematics and Statistics

The department offers minors in three areas: mathematics, statistics, and mathematics education. A minor in mathematics consists of MATH 150 and 152 (Calculus I and II), and nine hours of mathematics (statistics or operations research) courses at the 200 level or above, of which six hours must be at the 300 level or above and at least three of these six hours must be from mathematics. A minor in statistics consists of MATH 150 and 152 and nine additional hours of statistics courses at the 300 level or above. A minor in mathematics education consists of MATH 150, MATH 223 (Logic and Mathematical Reasoning), MATH 311 (Teaching of Secondary Mathematics), and three courses chosen from the following: MATH 315 (Number Theory) or MATH 320 (Introduction to Algebraic Structures); MATH 435 (Foundations of Euclidean and Non-Euclidean Geometry); MATH 300 (History of

Mathematics from Antiquity to Descartes) or MATH 400 (Development of Modern Mathematics); Statistics 244 (Statistics); and either Computer Science 140 or 141.

For all three minors, at least six hours of courses at the 300 level or above must be taken at SIUE. Students must maintain a GPA of at least 2.0 in all mathematics, statistics and operations research courses taken, and a GPA of at least 2.0 in all these courses at the 300 level or above. The minor in mathematics education is appropriate for certification for middle school teaching.

Students majoring in mathematical studies may not minor in mathematics, statistics, or mathematics education.

Music

Professors: Bell, J.R.; Haydon, R.G.; Hinson, J.M.; Ho, A.B.; Mishra, M.; Perry, L.W.; Stamps, D.B.; Tallant, A.; Thomas, R.

Associate Professors: Anop, L.M.; Bouman, S.; Coan, D.A.; Knapp, J.; Korak J.; Smith, D.A.; Wells, P.

Assistant Professors: Archer, K.K.; Chin, H.L.; Simiditchieva, M.

Instructors: Eubank, C.; Schapman, M.

The faculty in the Department of Music believe students interested 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 department is an accredited member of the National Association of Schools of Music and offers the bachelor of music degree with specializations in performance, music education, theory/composition, studio music and performance, musical theater, and music merchandising. The department also offers the bachelor of arts degree with majors in music.

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 performance 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.

The music computer laboratory is designed primarily to support the educational and individual creative activities of students majoring or minoring in music. However, it is considered an "open access" facility, and as such, welcomes all University students on a space-available basis. The laboratory contains 22 networked stations, each equipped with a MIDI synthesizer. It also houses a central file server, CD-ROM players, color monitors, videodisk, video and audio tape recording and playback equipment, laser printers, a scanner, and a variety of other peripherals. More than 200 titles of operating software are provided.

Students wishing to minor in music must consult with a designated adviser to develop an approved program before beginning course work. Students minoring in music must take at least one course in music theory and two courses in music history/literature, as approved by the adviser. To obtain a minor in music, the student must complete 24 hours of pre-approved music or general education courses with an overall grade point average of 2.6 or better. Music minors are expected to build a concentration in one particular area of music; a minimum of eight (8) hours in any one area constitutes a concentration. The following areas of concentration are suggested: Performance, (solo and ensemble); theory; history/literature; jazz; music merchandising and music education. Certain activities such as private applied study, advanced level courses and some ensembles require an audition and/or prior approval of the instructor.

Career Opportunities

A degree in music may lead to many interesting and productive careers in music and music-related 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; and composing and arranging. Additional opportunities exist in music publishing, music management and sales, music criticism, music librarianship, and private studio teaching.

Admission and Advisement

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 desiring to pursue any academic program in music are advised to file an application for a major upon entry to the University through the Office of Academic Advising and Counseling. Students applying for a major are issued the appropriate curriculum guide and Music Student Handbook, both of which contain requirements for the degree.

Convocation Requirement

Each undergraduate music major (bachelor of music or bachelor of arts) is required to attend a minimum of 15 convocations/recitals/concerts for a total of eight semesters. At least eight of these must be music convocations, and at least four of the remaining seven must be Music Department events. Attendance will be recorded from programs turned in to the music office by students. The requirement is waived for music education students during the semester of student teaching and for music merchandising students during the semester of their internship.

Transfer students will be advised at the time their transcripts are evaluated so that their convocation requirement will conform to the expected number of semesters until graduation.

If circumstances prohibit a student from fulfilling the requirement, the student may formally request permission to deviate from the established policy. The petition should be made in writing to the Convocation Committee.

Students will register for Convocation (MUS 100) on a satisfactory/unsatisfactory option for eight semesters. A grade of U will be removed when the required convocations/recitals have been completed.

Retention Policy

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.

Degree Requirements Bachelor of Arts Music

Courses in this program are for students who wish to study music as part of their general cultural education. Such courses also may be taken as background for advanced studies in music.

General Education Requirements	44
Some general education requirements may be satisfied while completing this major concentration. Students in this degree program must elect option B in the skills area, which includes foreign language.*	
Requirements for Major in Music	49
Music 125 (8), 225 (8), 121 (2), 221 (2)	20
Music, private applied (2 hours per semester)	8
Music Literature	4
Music major ensemble	4
Music 357	6
Music Electives**	7
Minor Concentration	18
Electives	13
Total	124

* Also counts toward general education skills requirement.

** Music 139 (2,2), "Diction for Singers," is required for voice students.

Degree Requirements Bachelor of Arts Music Specialization in Music History/Literature

The bachelor of arts degree with a specialization in music history/literature will serve students who wish to specialize within a liberal arts curriculum and provide a foundation for advanced students within the discipline.

General Education Requirements	44
Some general education requirements may be satisfied while completing this major concentration. Students in this degree program must elect option B in the skills area which includes foreign language.**	
Requirements for Major in Music	53-57
Music 125(8), 225(8), 121(2), 221(2)	20
Music, Private Applied (2 hours per semester)	8
Music 139 (2,2) Diction for Singers (required for voice students)	4
Music, Major Ensemble	4
Music 357	6
Music 326	3
Music 442	3
Music Literature Electives	4
Electives	23
Minimum Total Requirement	124

** Also counts toward general education skills requirement.

Degree Requirements Bachelor of Music Specialization in Music Merchandising

General Education Requirements	44
Some general education requirements may be satisfied while completing this major concentration. Students in this degree program must elect option B in the skills area, which includes foreign language.*	
Requirements for Major in Music	60-63
Music 125 (8), 225 (8), 121 (2), 221 (2), and electives (3)	23
Music, Major Ensemble	4
Music, Private Applied (2 hours per semester)	8
Music 139 (2,2) Diction for Singers (required for voice students)	4
Music 357	6
Music 395	6
Music 495	12
Minor Concentration (Business)	21
Economics 111	3
Economics 112	3
Accounting 200	3
Electives	12
Minimum Total Requirement	124

* Also counts toward general education skills requirements.

Degree Requirements Bachelor of Music Specialization in Performance

General Education Requirements	44
Some general education requirements may be satisfied while completing this major concentration. Students in this degree program must select option B in the skills area, which includes foreign language.*	
Requirements for Major in Music	75-87
Music 125 (8), 225 (8), 121 (2), 221(2), 309a(3), 312a,(3), 318(2), 326a (3) 442a (3)**	34
Music 357***	6
Music, Private Applied (major instrument)	24-32
Music 139 (2,2) Diction for Singers (required for voice students)	4
Music, Major Ensemble (one hour per semester)****	8
Music 411*****	2
(Students with keyboard concentration will substitute 413a,b for 411.)	
Total	124*

* Students concentrating in voice or theory/composition should include two years of foreign language (generally one year each of French and German). Students should consult with the music adviser regarding the sequence to be followed. Foreign language counts toward the general education skills requirement. This requirement is in addition to Music 139.

** Students with keyboard concentration will substitute 165a,b (2) for 121 and 221, and also substitute 461a,b for 309a.

*** Up to 6 hours may also count toward general education advanced course requirements.

**** Students with a concentration in piano should substitute a maximum of 6 hours in MUS 365 as partial fulfillment of this requirement. Students with a guitar concentration may substitute 6 hours of guitar ensemble.

Degree Requirements

Bachelor of Music

Specialization in Jazz Performance

General Education Requirements	44
Some general education requirements may be satisfied while completing this major concentration.	
Requirements for Major in Music	86
Music 125(8), 225(8), 121(2), 221(2), 331(2), 357(6) ..	28
Music 330 (6), 337(2), 409(4), 430(2), 436(2), 439(2) .	18
Music, Private Applied (major instrument)	26-32
Music, Major Ensemble (1 or 2 hours per semester)	8
Minimum Total Requirement	124

Degree Requirements

Bachelor of Music

Specialization in Music Education

Standard Special Certification K-12

Students who successfully complete course requirements for the music education specialization and pass the required certification examinations will be certified to teach K-12 choral, general and instrumental music.

General Education Requirements	44
Some general education requirements may be satisfied while completing this major concentration. Also note that students seeking teacher certification must take specific general education requirements. See the Secondary Education section of this catalog for details.*	
Requirements for Major in Music	80
Music 115 (2), 125 (8), 225 (8), 121 (2), 221 (2), 112a,b (2), 113 (1), 114 (1), 116a,b (2), 301a,b,c (6), 309a (3), 318a,b (4), 326a (3), 411 (2)	46
Music 357	6
Music, Private Applied (major instrument)**	16
Music 139 (2,2) Diction for Singers (required for voice students)	4
Music, Major Ensemble (one hour per semester)***	8
Professional Education Requirements	24
CI 200	2
EPFR 315	3
EPFR 320	3
Special Education 400	3
Curriculum and Instruction 451c (5) and Curriculum and Instruction 352 (5)	10
CI 440 for Missouri Certification	3
Additional Requirement	3
Health Education 201	3
Minimum Total Requirement	155

* Students concentrating in voice or theory/composition should include two years of foreign language (generally one year each of French and German). Students should consult with their music adviser regarding the sequence to be followed. Foreign language counts toward the general education skills requirement. This requirement is in addition to Music 139.

** One year of French or German is recommended for the student with a choral emphasis in music education.

*** Music 165a,b is substituted for 121 and 221 for students with keyboard emphasis. Two semesters of 365 may be substituted for major ensemble requirements.

**** Study on a secondary instrument is possible if requirements for class instructions are met by proficiency.

Prior to approval for student teaching, students must satisfy the course of study and proficiency

prerequisites established by the Music Department.

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 certification meet with an adviser in the Office of Clinical Experience, Certification and Advisement of the School of Education for admission to the teacher education program.

Degree Requirements

Bachelor of Music

Specialization in Theory/Composition

General Education Requirements	44
Some general education requirements may be satisfied while completing this major concentration. Students in this degree program elect option B in the skills area, which requires a foreign language.*	
Requirements for Major in Music	78
Music 125(8), 225(8), 121(2), 221(2), 309(6) 312(6), 326(6), 357(6), 411(3), 442 (6)	52
Music, Private Applied**	12
Music, Major Ensemble	8
Music electives***	6
Minimum Total Requirement	124

* Students concentrating in voice or theory/composition should include two years of foreign language (generally one year each of French and German). Students should consult with the music adviser regarding the sequence to be followed. Courses taken in foreign language may be used in meeting the general education skills requirement. This requirement is in addition to Music 139.

** Class piano until proficiency is satisfied; thereafter, any instrument or voice. Students are expected to enroll for applied study for a total of 6 semesters (not including class piano). Voice students must take 139 (4).

*** A program of electives must be approved by a faculty committee. Students with emphasis in composition normally elect 412 (6), those students emphasizing music theory normally elect 481.

Degree Requirements

Bachelor of Music

Specialization in Musical Theater

General Education Requirements	44
Some general education requirements may be satisfied while completing this major concentration.	
Requirements in Theater	28
Dance 114 (3), 210a(2), 211a(2), 212a(2), 213(1)	10
Acting: Theater 112a(3), 112b(3), 210a(3)	9
Music: 460a,b (2,2)	4
Introduction to Technical Theater: Theater 150 or 160	3
Modern Theater History: Theater 201b	3
Requirements in Music	56
Music, Private Applied Voice	16
Music 139 (2,2)	4
Choral Ensemble: 444 (1, 1, 1, 1)	4
Musical Theater Ensemble: Music 342(1,1,1)	3
Music Theater / Opera Workshop 460a,b(2,2)	4
Music: Music 125 (8), 225 (8), 121(2), 221(2)	20
Music History: Music 357b(3)	3

Minor Requirements

Students wishing to minor in music must consult with a designated adviser 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 MUS 125a, MUS 121a or 141k, MUS 111 and one upper level music history/literature course.

Students seeking minors in music are required to build a concentration in one particular area of music; a minimum of 8 hours in any one area constitutes a concentration. The following areas of concentration are available: performance, theory, history/literature, jazz, music education, and music merchandising.

Certain activities such as private applied study, advanced level courses, and some ensembles require an audition and/or prior approval of the instructor.

Philosophy

Professors: Cataldi, S.L.; Danley, J.R.; Simons, M.A. (Chair); Vailati, E.; Ware, R.B.

Associate Professors: Crane, J.K.; Fields, G.P.

Assistant Professors: Birondo, N.; Larkin, W.S.; Pearson, C.; Schossberger, C.A.; Stone, L.W.

Philosophy is the attempt to think carefully and critically about the nature of the world, the significance of life, and goals people should pursue both as individuals and as a society. Philosophers consider a number of complex questions, including the following:

- What is the nature and what are the limits of power that society can exercise legitimately over the individual?
- What makes human life valuable and worthy of respect?
- Are moral values objective or subjective?
- Is there a God? If so, what is God's relationship to the world?
- How can one decide whether a work of art is beautiful?
- Do human beings have free will?

These pursuits also involve inquiring into the reasons for beliefs about these issues. Thus, philosophers are forced

to consider the additional problem of what kinds of reasons are sound reasons.

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 critical skills and independent thinking, such as law and theology. 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 their other major likely raises questions about values or methodology that philosophy may explore, it may deepen and broaden their training in the other major.

Philosophy is especially appropriate as a minor 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. For more information or assistance concerning the Philosophy program, please contact the Department of Philosophical Studies in Peck Hall.

Admission Requirements

Undergraduate students who intend to apply for a major in philosophy must satisfactorily complete (with a grade of C or better) PHIL 106 or its equivalent before applying for a major in philosophy. PHIL 106 or its equivalent does not count for credit toward the major in philosophy.

Degree Requirements

Bachelor of Arts Philosophy or Science Philosophy

General Education Requirements 42-44

Some general education requirements may be satisfied while completing this major concentration.

Requirements for Concentration in Philosophy

Total Number of Hours Required in Philosophy 33

Specific Required Philosophy Courses 18

PHIL 233 (Philosophies and Diverse Cultures) 3

PHIL 300 (Ancient Philosophy) 3

PHIL 302 (Classical Western Modern Philosophy) 3

PHIL 320 (Ethics) 3

PHIL 310 (Theories of Knowledge) or

PHIL 330 (Metaphysics)	3
PHIL 490 (Special Problems)	3
PHIL Electives	15
Other Program Requirements	
Foreign Language (for BA, but not for the B.S.)	8
Minor	18
Additional Electives for the BA	21-23
Additional Electives for the BS	24-31
Total	124

Every philosophy major must complete the Senior Assignment in order to graduate.

Bachelor of Science Degree

Same as bachelor of arts requirements, but no foreign language.

Minor Requirements

A minor in philosophy consists of 18 hours in philosophy courses. Philosophy 111 may count toward the 18 hours. Students must successfully complete (earn a grade of C or above) PHIL 106 or its equivalent before they apply for a minor in philosophy. PHIL 106 or its equivalent does not count for credit toward the minor in philosophy.

It is strongly recommended that all students elect PHIL 111 early in their careers; the hours credited will count toward the major in philosophy only if they are among the first nine credit hours in philosophy. If students are considering graduate work in philosophy, they should take two years of a foreign language, preferably French or German, and PHIL 207 or 411.

Academic Standards

Both for majors and minors in philosophy, credit is allowed only for those philosophy courses in which the grade earned is C or above.

Physics

Professors: Braundmeier, A.J.; Hill, R.C.

Associate Professor: Foster, T.M.; Hamad, A.Y. (Interim Chair); Kaplan, D.H.

Assistant Professors: Garcia, H.; Glassman, J.; Glosser, C.; Horner, L.; Lindell, R.S.; Sabby, J.A.

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; classical mechanics introduces the techniques of the mechanical and civil engineer; and nuclear physics acquaints the student with nuclear fission and nuclear fusion reactions.

The Department of Physics provides three degree programs: the bachelor of arts, the bachelor of science, and the bachelor of science — secondary education teacher certification. 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. The bachelor of arts degree requires one year of a foreign language as part of the general education requirements for the major.

The Physics Department maintains teaching and research laboratories in which students develop measurement and data-analysis skills. Seniors often develop individual research projects suited to their interests. The department provides experimental research opportunities in the areas of thin film physics, optical coatings, nonlinear optical properties of materials and holographic data storage, and studies of the photon yields of prototypes of scintillating optical fibers. Our theoretical group offer research opportunities in mathematical physics, optical properties of solids, single-electron states for electrons confined to two dimensions in the presence of strong magnetic fields and charge impurities and how simple rules can lead to complex phenomena, such as self-organized criticality, self-similar structures, and power laws and elementary particle physics, concentrating on gauge field theories, quantum chromodynamics and weak interactions, and more. The department also has an active physics and Astronomy Education Research group studying problem-solving in physics and astronomy, conceptual difficulties in astronomy, inclusiveness issues in science, implementing and developing novel and inquiry-based curriculum, and developing reliable and valid assessments.

Career Opportunities

A degree in physics opens the door to a variety of scientific and technical careers. Physicists are employed in industrial and national laboratories, and work with other scientists and engineers. Such industrial functions may include research and development in lasers and electro-optics, radiation damage, and measurement and control. Many students choose to continue their education by pursuing graduate studies. Teaching at any level from primary through college is another career possibility. Because of the fundamental nature of the subject, 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.

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 a faculty adviser. Advisement is mandatory; majors are permitted to register each term only after their Course Request Forms have been approved by a departmental adviser. 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. 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.

Academic Standards

- 1 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:
 - A grade point average of 1.0 or below in any term;
 - B cumulative grade point average below 2.0 in the

major at any time;

- C withdrawal, incomplete, and a combination of failing grades in 50% or more of the courses for which the student is registered during two successive terms;
 - D any combination of three withdrawals, incomplete, or failing grades in any single required course in the major discipline.
- 2 For readmission, students must meet the same admission requirements as students entering the program for the first time.

Graduation Requirements

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

- A Earn a minimum of 124 hours of acceptable credit with a cumulative grade point average of 2.0 or higher;
- B Complete the minimum number of credit hours required for a particular degree;
- C 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;
- D Earn a GPA of 2.0 or above in all major courses numbered above 299;
- E 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.

Physics Honors Program

An application for admission to the physics honors program will be accepted only upon the student's admission to the honors scholars program and after application for a major in physics. The requirements for admission to the Honors Scholars Program are described elsewhere in this catalog.

The honors curriculum core courses are taken in the last two years of study and include Junior Physics Honors 390(3), Senior Physics Honors 490(3), and Physics

Honors Thesis 495 (3). In addition, honors students are required to take the quantitative Graduate Record Examination, or the equivalent, and achieve a score in the 85th percentile or better. Students who complete the curriculum will be recognized by the designation "Physics Honors" on their diploma.

Upon receiving an application to the honors program, the designated honors scholars adviser will serve as the adviser for physics honors Students. The faculty adviser will help students complete the program requirements.

Degree Requirements

Bachelor of Arts

Physics

General Education Requirements	44
The general education curriculum requires 44 hours of general education credit. For the bachelor of arts degree, 8 hours of foreign languages are required. Also note that students seeking teacher certification must take specific general education requirements. See the Secondary Education section of this catalog for details.	
Physics Requirements	33
PHYS 211a,b; 212a,b; 302; 312; 497 or 498; 9 hours selected from PHYS 308; 318; 320; 405a,b; 410; 415a,b; 6 additional hours selected from physics courses numbered 300 or higher	
Chemistry Requirements	10
CHEM 121a,b, 125a,b,	
Mathematics Requirements	14
MATH 150, 152, 250.	
Electives and/or Minor	23
The following electives are suggested for students planning to enter medical school; CHEM 241 a,b, 245; BIOL 120, 121	
Total	124

Degree Requirements

Bachelor of Science

Physics

General Education Requirements	42-44
The general education curriculum requires 42 or 44 hours of general education credit. Also note that students seeking teacher certification must take specific general education requirements. See the Secondary Education section of this catalog for details.	
Physics Requirements	43
PHYS 211a,b; 212a,b; 302; 303; 308; 312; 318; 405a,b; 410; 415a,b; 497 or 498	
Chemistry Requirements	10
CHEM 121a,b, 125a,b,	
Mathematics Requirements	17
MATH 150, 152, 250, 305	
Electives and/or Minor	10-12
Total	124

Degree Requirements

Bachelor of Science

Physics

Secondary Education Teacher Certification

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 certification meet with an adviser in the Office of Clinical Experience, Certification and Advisement of the School of Education for admission to the teacher education program.

General Education Requirements 38
An overall grade point average of 2.5 is required for admission to the School of Education Teacher Certification program. The Natural science and mathematics general education distribution course requirements are met within the program.

Skills Courses

ENG 101 and ENG 102	6
SPC 103 (Recommended)	3
IME 106 (Recommended)	3
CS 140	3
Introductory Courses	
ENG 111 (recommended)	3
PSYC111 (recommended)	3
MATH 150	5
Fine Arts and Humanities or Social Science elective	3
Distribution Courses	
Fine Arts and Humanities and Social Science electives	6
Interdisciplinary Studies	3
IS 364, 336 or IS 363	
Biology Requirements	11
BIOL 120, 121, 319	
Chemistry Requirements	13
CHEM121a,b with CHEM125a,b, 241a	
Earth/Space Requirements	6
GEOG 210, PHYS 356	
Physics Requirements	23
PHYS 211a,b with PHYS 212a,b, PHYS 301, 302, 303, 318	
Mathematics Requirements	9
MATH 152, 250	
Methods of Teaching Science	3
PHYS 494	
Science Requirements	3
SCI 451	
Professional Education Requirements	28
CI 200	
See Secondary Education	
Total	134

Minor Requirements

The minor program in physics consists of 20 hours with a grade point average of 2.0 or higher in the following courses:

PHYS 211a,b, 212a,b, and 302

At least one of PHYS 301, 303, 308, 312, 318, 320, 405a,b, 410, 416, or 450

Any additional physics course(s) numbered 300 or higher.

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

Political Science

Associate Professor: Maurer, L.M. (Chair)

Assistant Professors: DeGarmo, D.; Guehlstorf, N.P.; Harward, B.M.; Hayden Foster, C.; Mangum, M.L.; Moffett, K.; Rice L.; Theising, A.J.

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.

The study of political science can serve as preparation for a number of different careers, as the core of a liberal education, or as a source of interesting and valuable electives. Students entering political science programs must have completed the general education requirement for writing skills courses (i.e., English 101 and 102 or equivalent) and must have resolved all high school course deficiencies. Students should consult the department's advisers as soon as possible after applying for a major. The adviser will provide students with initial orientation to the department's programs and will arrange for their continuing advisement. A pre-law adviser helps students prepare courses of study and can provide useful information about law school admission. Faculty members in public administration can provide course work, information and guidance for undergraduates planning a career in public service. Minor programs and

transfer credits must be approved in the minor department. Transfer courses for the political science 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 places selected pre-law students 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.

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 secondary education teacher certification. 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 will also 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.

Entrance Requirements

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), all high school course deficiencies, and must have a minimum overall G.P.A. of 2.5. This requirement also applies to any transfer G.P.A.

Degree Requirements

Bachelor of Arts or Bachelor of Science Political Science

General Education Requirements	42-44
For the bachelor of arts degree, option B in general education skills must be chosen.	
Major Requirements	33
A minimum of 33 hours, including POLS 111 and 112, and at least 3 hours in four of the six fields of political science: american government and politics, comparative politics, international relations, political theory, public administration, and public law.	
Minor (Required)	18-21
Electives	26-31
Total	124

* Requirements for the bachelor of science degree differ from those for the bachelor of arts degree in that a foreign language is not required. A minimum grade of C is required in major courses.

Exit Requirements

All students majoring in political science must complete a Senior Assignment, which includes a comprehensive written examination and a portfolio during their last term in residence.

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.

Degree Requirements

Bachelor of Science Political Science

Secondary Education Teacher Certificate

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 Sciences as outlined below:

ANTH 111 Introduction to Anthropology	3
SOC 111 Introduction to Sociology	3
ECON 111 Macroeconomics	3
ECON 112 Microeconomics	3
GEOG 201 World Regions	3
GEOG 205 Human Geography	3
GEOG 210 Physical Geography	3
HIST 112A World History	3
HIST 112B World History	3
HIST 219 American History for Teachers	3
HIST 323 History/Pedagogy	3

Two of these 111 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:

- 1 Certification requires a 2.75 GPA in political science courses, including those completed at past institutions.
- 2 completion of the strong minor in social sciences.
- 3 completion of social sciences/pedagogy before taking CI 352L, Student Teaching.
- 4 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 Certification.

Students also must complete the required program of professional education requirements in the School of Education and state requirements for certification. Therefore, it is essential that any student desiring teacher certification meet with an adviser in the Office of Clinical Experience, Certification and Advisement of the School of Education or admission to the teacher education program.

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.

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 that emphasizes technical writing skills is especially helpful in law school. Students considering a law career should enjoy working with people, have good communication skills, enjoy reading, 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 Pre-Law 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.

Science (Earth and Space Science)

Associated Faculty: AbuSharbain E.M. (Biological Sciences); Barry, K. (Biological Sciences); Foster, T.M. (Physics); Hasty, M.L. (Mathematics); Lindell, R.S. (Physics); Plunk, D.L. (Office of Science and Math Education); Springer, C. (Geography); Voepel, T.M. (Mathematics); Wiediger, S.D. (Chemistry)

The College of Arts and Sciences, in cooperation with the Department of Curriculum and Instruction in the School of Education, offers a broad teaching field program in earth and space science. This program, through which prospective teachers can meet Illinois certification requirements to teach earth and space science in junior and senior high schools, satisfies the guidelines of the National Science Teachers Association. Students interested in science and/or mathematics education should seek advice from one of the faculty members listed above.

Prospective teachers, both elementary and secondary, are served by the Science Resource Center, which contains samples of textbooks, teaching aids, videotapes, and computer programs for the teaching of science. A complete set of mathematics and science kits may be borrowed from the Science Resource Center for student teaching.

Degree Requirements Earth and Space Science Education Secondary Education Teacher Certification

General Education Requirements	38
An overall grade point average of 2.5 is required for admission to the School of Education teacher certification program. The natural science and mathematics general education distribution course requirements are met within the program.	
Skills Courses	
ENG 101, 102	6
SPC 103 (recommended)	3
IME 106 (recommended)	3
STAT 244 (recommended)	3
Introductory Courses	
ENG 111 (recommended)	3
PSYC 111 (recommended)	3
MATH 150	5
Fine Arts and Humanities or Social Science elective	3
Distribution Courses	
Fine Arts and Humanities and Social Science electives ..	6
Interdisciplinary Studies	
IS 324, 326, 336, 340, 353, 363, 364, 377, or 400	3
Biology Requirements	11
BIOL 120, 121, 319	
Chemistry Requirements	13
CHEM121a,b with 125a,b, CHEM 241a	
Earth/Space Requirements	21
ESCI 111, GEOG 202, 210, 211, 314, PHYS 356, 366	
Physics Requirements	10
PHYS 206a,b (or PHYS 211a,b and PHYS 212a,b)	
Methods of Teaching Science	6
CHEM 494 or PHYS 494, PHYS 434	
Science Requirements	3
SCI 451	
Professional Education Requirements	28
CI 200 See Secondary Education	
Science/Mathematics Electives	3
Total	133

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 certification meet with an adviser in the Office of Clinical Experience, Certification and Advisement of the School of Education for admission to the teacher education program.

Social Work

Professors: Brown, V. (Chair); Regulus, T.

Associate Professors: Bentelspacher, C., (MSW Admissions Coordinator); O'Brien, G.; Tunney, K. (MSW Program Director)

Assistant Professors: Boyd, R.; Duckham, B.; Lawrence, S.; Wesley C. (Director of Practica)

Instructors: Hamilton, K.; Rakers, S. (BSW Program Director)

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 program consists of specialized courses in the general education program, supporting courses in other disciplines, and social work courses. 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; 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. This field placement is arranged in advance with the Director of Practica and is designed to meet students' needs and interests within the context of the educational objectives of the program.

Additional information about the undergraduate social work program may be found at: www.siu.edu/SOCIAL.

Admission Requirements

Students may apply for admission to the undergraduate program in social work after two semesters of full-time college or university enrollment. Applicants to the undergraduate social work program must submit through the SIUE Office of Academic Counseling and Advising the following information to be considered for admission:

- 1 an application to SIUE certifying their admission to the University;
- 2 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 undergraduate program; and
- 3 a referral to the undergraduate social work program by his or her adviser in the SIUE Office of Academic Counseling and Advising.

In addition to this process, students transferring to SIUE may apply for direct declaration when applying for admission to SIUE. If you are a declared major in a different department and wish to change your major to social work, you must come to the Social Work Office to complete a major/minor approval form. Students may apply for admission to the program at any time during the academic year.

Eligibility for Admission to the Undergraduate Social Work Program

To be eligible for admission to the program, applicants must:

1. 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.
2. demonstrate written proficiency in English by completing English Comp I and II with a grade of C or better.
3. demonstrate the ability to communicate clearly and effectively by completing a speech course in interpersonal communication with a grade of C or better.
4. 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 Undergraduate Admissions Committee, composed of the director of the undergraduate program and two members of the Undergraduate Curriculum and Planning Committee. Students who plan to enter the program should meet with the director of the

undergraduate program as early as possible.

It is important that students become familiar with sequences and prerequisites for courses in this major and the various required and recommended courses offered by collaborating departments.

Transfer Credit and Policy on Life and Work Experience

Transfer course credit from other CSWE-accredited programs will be considered for acceptance toward the SIUE undergraduate degree with a major in social work. No course credit will be awarded for work or life experience.

Retention Standards

Once accepted into the social work program, students are expected to maintain an overall GPA of 2.5 and a social work GPA of 2.5; to complete all required social work courses and social work electives with a grade of C or above; and to 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 undergraduate program and the Student Affairs Committee 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 adviser 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.

The student, the department chair and the student's adviser will be notified in writing when the student is placed on department probation, and a copy of this notification will be placed in the student's file. Notification of removal from the program will be placed in the student's file; the file will be returned to Academic Counseling and Advising for continued academic counseling.

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 or mental 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 CSWE accredited program.

Degree Requirements Bachelor of Arts or Bachelor of Science Social Work

General Education Requirements	54
Skills for bachelor of science	15
ENG 101, ENG 102, PHIL 106, SPC 103, STAT 107	
Students pursuing a bachelor of arts degree are required to take two semesters (8 hours) of a foreign language.	
Fine Arts & Humanities	9-12
INTRO FAH (*one additional INTRO FAH), ENG 201, PHIL not 106 (233, 245, 320, 321, 334, 346 recommended)	
Natural Sciences and Mathematics	6-9
BIOL 111 (*one additional INTRO NSM), DIST NSM	
Social Sciences	18
ANTH 111, ECON 111, HIST 201, POLS 112, PSYC 111, PSYC 206	
Interdisciplinary Studies	3
IS	
General Education Electives	15
(*Choose one additional INTRO FAH or one additional INTRO NSM)	
Social Work Required Courses	46
200, 201, 202, 211, 301, 302, 303, 315, 316, 390, 400, 401, 482, 483, 480	
Social Work Electives	9
Total	124

Note: No academic minor is required for social work majors; however, a minor in the social or behavioral sciences is strongly encouraged.

Senior Assignment

All undergraduate majors in social work are required to complete a senior assignment as part of the undergraduate social work 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.

Sociology and Criminal Justice Studies

Professors: Finkelstein, M.; Markowitz, L.

Associate Professors: Hedley, M.; Kauzlarich, D. (Chair); Petrocelli, M.;

Assistant Professors: Blad, C.; Cannon, K.; Campbell, L.; Cobb, P.D.; Dirks-Linhorst, P.A.; Frey, C.; Maatita, F.C.; Mares, D.; Oberweis, T.; Welch, L.C.

Criminal Justice Studies

The B.A./B.S. degree in criminal justice studies at SIUE is a multi-disciplinary 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 course work in criminal justice studies.

Statement of Major Goals: Criminal Justice Studies

- 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

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.

Degree Requirements

Bachelor of Arts or Bachelor of Science Criminal Justice Studies

General Education Requirements	48-50
Some general education requirements may be satisfied while completing the major requirements	
Requirements for Major in Criminal Justice Studies	39
CJ 201, 202, 208, 272, 302, 303, 366, 488,	24
CJ Electives	15
Other Electives	35-37
Bachelor of Arts	37
Bachelor of Science	35
Total	124

Admission/Entrance Requirements

Admission to the criminal justice major is competitive, and students must meet the following conditions to be considered for admission:

1. completion of all general education skills courses with grades of C or better
2. completion of 15 hours of introductory courses with

grades of C or better

3. completion of the following courses with grades of C or better: SOC 111, POLS 112, and CJ/SOC 201, or their equivalents
4. completion of the Pre-CJ Program, described below
5. 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.

Ordinarily, students are admitted to the pre-CJ program at the beginning of the fall semester after they have completed at least 30 semester hours of undergraduate study.

In addition to completing CJ/SOC 201 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 1211. Students are strongly encouraged to apply during spring registration of the calendar year in which they intend to enter the pre-CJ program, but in no case later than September 15 of that calendar year. Admission to the pre-CJ program is not a guarantee of acceptance into the major in criminal justice studies.

Applications for admission to the major in criminal justice studies are reviewed prior to the start of fall semester. Students enrolled in the pre-CJ program should apply in person at the CJ director's office no later than the fifth week of spring semester of the calendar year in which they wish to become a CJ major. Transfer students must apply no later than August 1.

Applications will be reviewed by an admissions committee composed of the director of criminal

justice studies and two members of the full-time 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 course work 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

Retention and Graduation

Students majoring in criminal justice are required to maintain a cumulative average of C or better in their criminal justice course work.

Program Graduation Requirements

A cumulative grade point average of 2.0 or above in criminal justice course work 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.

Transfer Credit

Ordinarily, up to 12 semester hours of 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. Subject to appropriate articulation agreements, community college students may count the following courses, or their equivalents, as credit toward the major. Additional transfer hours may be used if approved by criminal justice advisors.

CJ 201 Introduction to Criminal Justice
[IAI Course No. CRJ 901]

CJ 202 Introduction to Corrections
[IAI Course No. CRJ 911]

CJ 205 Juvenile Justice
[IAI Course No. CRJ 914]

CJ 206 Criminal Law and Procedure

CJ 208 Introduction to Law Enforcement

[No IAI equivalent]

CJ 272 Criminology [IAI Course No. CRJ 901]

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).

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 488. Up to 9 hours of transfer credit may be accepted toward the minor.

Major Course Work

The core of the criminal justice major consists of 24 hours of course work required of all students, plus 15 hours of criminal justice electives. Majors must complete CJ 201, 202, and 208 with a C or better grade before they take any 300- or 400-level CJ course. CJ 302 and 3038 will be prerequisites for all 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.

Sociology

Sociology is the scientific study of human groups and relationships. A major purpose is to find efficient and effective ways to 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.

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
- 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

Career Opportunities

Many employers emphasize that a good liberal arts education is an excellent foundation for specialized skills that can be learned on the job. A major in one of the social sciences often is preferred by industry, government, and private service agencies. 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 optional concentration 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 advisers by calling 618-650-3713.

Degree Requirements

Bachelor of Arts or Bachelor of Science Sociology

General Education Requirements	42-44
Some general education requirements may be satisfied while completing the major requirements.	
Requirements for Major in Sociology	36
Sociology 111, 301, 302, , 303, 495	15
Sociology Electives	21
Electives	44-46
Bachelor of Arts	44
Bachelor of Science	46
Total	124

Program Option in Employment Relations

The program 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 adviser in Peck Hall, room 0206 .

Degree Requirements

Bachelor of Arts or Bachelor of Science Sociology Employment Relations Option

General Education Requirements	42-44
Requirements for the Sociology Major with the Program option in Employment Relations	45
Sociology 111, 301, 302, 303, 338, 431, 433	21
Sociology Electives	9-15
Non-sociology Electives from a list provided by the Employment Relations Adviser	9-15
Electives	35-37
Total	124

Admissions/Entrance Requirements

The admission requirements for a bachelor of arts or bachelor of science degree in sociology include

admission to the University and successful completion of high school course-specific 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 course work following declaration.

Retention Standards

Students majoring in sociology are required to maintain a cumulative average of 2.0 (C) or above in their sociology courses.

Program Completion Requirements

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. 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.

Senior Assignment

As part of the University's assessment program, all undergraduate majors in sociology are required to complete a senior assignment. General majors (those not enrolled in the program option 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) and 303 (Statistics). 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 part of their senior assignment. Employment relations students are not required to enroll in Sociology 495, but they 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.

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.

Speech Communication

Professors: McClearey, K.E.

Associate Professors: Perkins, L. (Chair); Stern, L.A.; Wrobbel, E.D.; Zamanou-Erickson, S.

Assistant Professors: Blankson, I.A.; Cattafesta, J.; Reynard, L.J.; VanCleave, J.T.

Instructors: Bumpers, K.; Fussell, R.; Grant, E.; Meyer, J.; Shiller, A.

Speech Communication is rooted in the great ancient civilizations Egypt, Rome, Africa, and Athens, where culturally rich oral traditions formed the underpinnings of the social-political community life.

The study of communication involves developing 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, and speaker-audience interaction in public speaking.

The Speech Communication Department encourages students to work closely with faculty in advising, teaching, research projects, and informal interactions. Speech communication majors and minors receive their formal academic advisement from a faculty member assigned by the director of undergraduate studies. Students interested in careers may contact the 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; working in 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 speech communication 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.

Speech Communication 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 also 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 pre-graduate 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 who choose 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.

Admission to the Major

To be accepted as a major in speech communication, a student must have completed both the general education oral skills course SPC 103, Interpersonal Communication Skills (or equivalent) and the general education oral skills course SPC 105, Public Speaking Skills (or equivalent) with a grade of C or higher and must have a cumulative grade point average of 2.0 or higher (on a 4.0 scale).

Degree Requirements Bachelor of Science Speech Communication

General Education Requirements 42-44
Some general education requirements may be satisfied while completing the major concentration.

Requirements for Major in Speech Communication	36
1. SPC 200, 329, 330, Capstone Course (409 or 415, depending on track)	12
2. Complete all required courses within one track as outlined below.	
3. Complete additional hours of applicable course work within the department (including SPC 309, 419 & 491).	

Notes:

SPC 111 does not count for major credit.
No more than three hours of SPC 309, Independent Projects may be counted toward 36-hour major.

No more than three hours of SPC 491, Internship may be counted toward 36-hour major.

SPC 419, Special Topics may be substituted for courses in any given track with faculty consent. No more than three hours of SPC 419 may be counted toward 36-hour major.

At least 18 of the hours counted toward 36-hour major must be completed at SIUE.

Track Requirements and Recommendations

Corporate and Organizational Communication Track

Required: SPC 201, 203, 300, 403

Recommended electives: SPC 210, 213, 223, 331, 430, 434, 491

Interpersonal Communication Track

Required: SPC 201, 223, 433, 434, 464

Recommended electives: SPC 210, 305, 331, 423

Public Relations Track

Required: SPC 213, 313, 315, 413, 414, 415 (Senior Project)

Recommended electives: See Public Relations adviser

Minor 18
The actual number of hours for the minor may vary, depending on the field that is selected.

Electives 26-28
Total 124

In addition to meeting their academic responsibilities, students are expected to integrate into their learning a broad range of campus and community communication activities. The independent projects course, SPC 309, offers one to six hours of academic credit for such activities (no more than three of which may be applied toward the major). SPC 491, an internship course, enables qualified juniors and seniors to gain professional experience in career environments.

Degree Requirements Bachelor of Arts in Speech Communication

The requirements are the same as those described above, plus eight hours of the same foreign language as part of the 24-26 elective hours.

Minor Requirements

To be accepted as a minor in speech communication, a

student must have a cumulative grade point average of 2.0 or higher (on a 4.0 point scale). An 18-hour minor in speech communication may include any courses offered in the speech communication curriculum at the 200 level or above, except for those courses restricted to majors only. Students and their respective advisers will set up a minor program that includes courses that best meet the students' academic and career interests. Nine hours of the minor must be completed at SIUE. At the time they apply for their minor (or earlier), students should consult with the speech communication director of undergraduate studies, (618) 650-3090.

Speech Communication Education Minor (available to Language Arts Secondary Certification students only)

Students who apply for language arts certification through the Department of English Language and Literature also must, within 30 days, apply for the speech communication education minor through the Department of Speech Communication. Minor advisement by the director of speech communication education, available at 650-3090, is mandatory.

The speech communication education minor consists of 21 hours of the following courses: SPC 103, SPC 104, SPC 105, SPC 201, SPC 261, SPC 305, and SPC 461. These courses may also be used to fulfill general education requirements. At least 9 hours of the 21-hour Speech Communication Education minor must be completed at SIUE.

Students must maintain a minimum major and minor GPA of 3.0 and pass the screening of the Department of English Language and Literature to be eligible for student teaching. Students are required to gain advisement for professional education courses through the Office of Clinical Experience, Certification, and Advisement.

Theater and Dance

Professors: Bukalski, P.J.; Jarrell, J.C.; Neely, M.K. (Dean, College of Arts and Sciences); Sill, D. (Senior Scholar); Swezey, C.O.

Associate Professors: Cocuzza, P. (Chair); Shaul, K.J.; Wulfson, J.

Assistant Professors: Hanson, L.M.; Harper, C.B.; Schmitz, J.L.; Sol, D.L.

Instructors: Bozark, K.; Goldston, V.; Hagan, L.; Speidel, R.; Thomas, M.

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. With a specialization in Theater Education, students can prepare for a career in teaching in the high school.

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 experimental theater productions. Students majoring in theater and dance may elect from one of five specialization programs: performance, design/technical theater, dance, history/literature/criticism and theater education.

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 adviser who will provide more information about the curricula and the department and help them plan an academic program. Early advisement will enable students to complete their programs with minimal conflicts and within the shortest possible time.

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, or DANC 499). Details of this requirement may be obtained from the student's departmental adviser. In addition to departmental

requirements, students must complete all University requirements for graduation.

Degree Requirements

Bachelor of Arts or Bachelor of Science

Theater Specialization in Design/Technical Theater

General Education Requirements	42-44
*For a bachelor of arts degree, students must select option B in the general education skills area, which includes foreign language.	
Major Requirements	51
The Core must be completed before taking any 300- or 400-level Theater and Dance courses.	
Core Courses:	
THEA 112a, 114a, 114b, 201a, 201b, 220, DANC 114	21
Choose one of the following: THEA 150, 160, 170	3
Specialization Courses:	
THEA 250	3
Choose two of the following, if not taken above:	
THEA 150, 160, 170	6
Choose two of the following: THEA 350, 360, 370	6
Choose nine hours of the following, if not taken above:	
THEA 265, 350, 355, 360, 370, 375, 450, 460, 470, 475, 480, 482	9
Senior Assignment (THEA 499a,b,c)	3
Electives (limit of 15 credits of electives in major.)	31
Total	124-128

Degree Requirements

Bachelor of Arts or Bachelor of Science

Theater

Specialization in Dance

General Education Requirements	42-44
*For a bachelor of arts degree, students must select option B in the general education skills area, which includes foreign language. Six credit hours of major courses may satisfy general education requirements while completing this degree.	
Major Requirements	49
The Core must be completed before taking any 300- or 400-level theater and dance courses.	
Core Courses:	
THEA 112a, DANC 114	6
Choose one of the following: THEA 114a or 114b	3
Choose one of the following: THEA 150, 160, or 170	3
DANC 230	3
DANC 240	3
Choose one of the following: THEA 201a or 201b, ART225a, or 225b, MUS 357a or 357b	
Choose one of the following: DANC 210 or 211	2
Choose one of the following: KIN 315, or BIOL 240a	3
Specialization Courses:	
DANC 310a, 310b, 311a, 311b, 320, 420a, 420b, 433	21
Choose one of the following: DANC 410a, 410b, 411a, 411b	2
Senior Assignment (DANC 499)	3
Theater Practicum Courses:	
THEA 199 — Pass/Fail — 4 Semesters	0
An additional THEA 150, 160, or 170 course can be substituted for 2 semesters of THEA 199	
Electives (limit of 15 credits of electives in major.)	33
Total	124-126

Degree Requirements

Bachelor of Arts or Bachelor of Science

Theater Specialization in History, Literature and Criticism

General Education Requirements	44
*For a bachelor of arts degree, students must select option B in the general education skills area, which includes foreign language. Six credit hours of major courses may satisfy general education requirements while completing this degree.	
Major Requirements	42
The Core must be completed before taking any 300- or 400-level theater and dance courses.	
Core Courses:	
THEA 112a, 114a, 114b, 201a, 201b, 220, DANC 114	21
Choose one of the following: THEA 150, 160, or 170	3
Specialization Courses:	
Choose one of the following: ENG 307, 471a, 471b	3
Twelve additional hours in Theater and Dance classes selected with consent of adviser, six of which have to be at the 300 or 400 level.	
Senior Assignment (THEA 499 c)	3
Theater Practicum Courses:	
THEA 199 — Pass/Fail — 4 Semesters	0
An additional THEA 150, 160, or 170 course can be substituted for 2 semesters of THEA 199	
Electives (limit of 15 credits of electives in major.)	38
Total	124
*Bachelor of Arts or Bachelor of Science	

Degree Requirements

Bachelor of Arts or Bachelor of Science

Theater Specialization in Performance

General Education Requirements	42-44
*For a bachelor of arts degree, students must select option B in the general education skills area, which includes foreign language.	
Major Requirements	51
(The Core must be completed before taking any 300- or 400-level theater and dance courses)	
Core Courses:	
THEA 112a, 114a, 114b, 201a, 201b, 220, DANC 114	21
Choose one of the following: THEA 150, 160, or 170	3
Specialization Courses:	
THEA 112b, 215a, 312, 310a, 310b, 410,	18
Choose six hours from the following: THEA 210a, 210b, 215b, 230, 235, 265, 315a, 315b, 412	6
Senior Assignment (THEA 499a)	3
Theater Practicum Courses:	
THEA 199 — Pass/Fail — 4 Semesters	0
An additional THEA 150, 160, or 170 course can be substituted for 2 semesters of THEA 199	
Electives (limit of 15 credits of electives in major)	31
Total	124-126

* Bachelor of arts or bachelor of science

Degree Requirements

Bachelor of Arts or Bachelor of Science

Theater and Dance

Theater Education

Secondary Education Teacher Certification

General Education Requirements	42-44
*For a bachelor of arts degree, students must select option B in	

the general education skills area, which includes foreign language.

Students seeking teacher certification must take specific general education courses. See the Secondary Education Section of the undergraduate catalog for details.

Requirements for the Major in Secondary Education 28

Note: Requirements may change.

Curriculum and Instruction 200	2
EPFR 315	3
EPFR 320	3
Special Education 400	3
Curriculum and Instruction 315a	2
Curriculum and Instruction 315b	2
Curriculum and Instruction 440	3
Curriculum and Instruction 352	10

There are specific admission requirements for the initial teacher certification, secondary education program. See the Secondary Education section of this catalog for details.

Requirements for the Major in Theater .. 41

Theater Core:

THEA 112a — Introduction to Acting	3
THEA 114a — Forms of Dramatic Action I	3
THEA 114b — Forms of Dramatic Action II	3
THEA 150 — Scene Design and Construction	3
THEA 201a — Theater History I	3
THEA 201b — Theater History II	3
THEA 220 — Directing	3
DANC 114 — Movement Fundamentals	3

Theater Education Specialization 17

Two of the following group, not taken in core:.....6

THEA 160 — Technical Theater — Costumes; Design and Construction	3
THEA 170 — Technical Theater Lighting and Sound	3
THEA 265 — Theater Makeup	2
THEA 298 — Intro to Theater Education in the Sec Schools.....	3
THEA 309 — Musical Theater or 312 Multi-Cultural Theater ...	3
THEA 398 — Advanced Theater Education in the Sec Schools	3

Electives 10-13

Total 124

*Bachelor of Arts or Bachelor of Science

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.

Secondary education majors are recommended to have a second teaching field. The Department of Theater and Dance strongly 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 certification meet with an adviser in the Office of Clinical Experience, Certification, and Advisement of the School of Education for admission to the teacher education program.

Senior Assessment: Students must satisfactorily complete student teaching with a grade of pass, direct a theatrical production with pre-college students, and prepare a student portfolio which should include: a) a set of four lesson plans or total unit, b) a 1,000-word essay regarding the importance of general education as part of the theater education curriculum, c) excerpts from the student teaching journal describing peak experiences in teaching, d) other pertinent material that the student might feel appropriate. The portfolio must be professional in appearance and be aesthetically pleasing for future use with job placement. All theater and dance faculty will be invited to attend the theatrical production.

Musical Theater Degree

See Department of Music.

Theater and Dance Minor

The theater and dance minor consists of 21 hours: THEA 112a, THEA 150 or 160 or 170, THEA 201a or THEA 201b or DANC 240, DANC 114, 9 hours of approved electives in theater and/or dance, and one semester of THEA 199. 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.

The Bachelor of Liberal Studies (BLS) Traditional Program

The bachelor of liberal studies degree program is designed to enable students to pursue a broad-based 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 inability 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, courses selected to satisfy all

requirements, and the relevance of the BLS degree to those goals. Students submit the proposal for a review by three faculty who must acknowledge the appropriateness of the interdisciplinary focus and who agree that the focus cannot be supported within any existing SIUE major. This process must also include the student's planning for the Senior Assignment. 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 inability 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.

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 résumé 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.

Degree Requirements Bachelor of Liberal Studies

Each student must develop an educational contract that satisfies the following requirements:

A. Total number of hours required	124
B. General Education	42-44
C. Required Courses in Arts and Sciences	45

At least 5 courses consisting of a minimum of 15 semester hours,

above and beyond the general education requirements, must be completed with grades of C or better, of the disciplinary distributions indicated below.

1. Natural Sciences and Mathematics	15
2. Social Sciences	15
3. Fine Arts and Humanities	15

D. Elective Hours 32-34

1. General Electives	10-16
2. Focused Electives	18-22

A specific interdisciplinary focus will be formulated upon the student's entry into the program and will become a part of the student's educational contract. Courses taken to satisfy elective hours will explicitly relate to this focus.

E. Senior Project 3-6

The Senior Project (a capstone academic experience), serving as a component in senior assessment, affords the student an opportunity for self reflection and independent study. The academic breadth of the liberal studies program orients students' attention toward activities that might include, but are not limited to, a student practicum, internship, integrative research paper, presentation, or creative undertaking. A minimum grade of C in LIBS 400 is required to meet 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.

Environmental Sciences Minor

The Environmental Sciences Program now 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.

Requirements

Students must apply for and be accepted into the minor program in Environmental Sciences. Minimum

requirements for admission are a cumulative GPA of 2.5. To satisfy the Minor requirements, students must take and complete the following courses while maintaining a minimum cumulative GPA of 2.5: Survey of Environmental Sciences (120); Applied Research Methods (210); Principles of Environmental Sciences (220); Environmental Health and Waste Management (330);

Ecosystem Management and Sustainability (340); Environmental Law (402); and Science, Experts and Public Policy (419). These 19 units of courses are administered through the Environmental Sciences Program.

Master of Science Degree Environmental Sciences

The College of Arts and Sciences administers an interdisciplinary program leading to a master of science degree in Environmental Sciences. The mission of the Environmental Sciences Program is to cultivate students' perspectives of environmental issues and provide students with refined knowledge of environmental issues on local, regional, and global scales. Students successfully completing the undergraduate minor with an acceptable grade point average (see the program description in the SIUE Graduate Catalog) will be accepted in the master's program.

Interdisciplinary Minors

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 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:

Black Studies Courses

Required Courses

English 340
History 130

Designated Black Studies Electives

Anthropology 310, 311, 411
Art 469a
English 205, 341, 342
History 352a, b, 442 (400 Topic: Film and African Experience)
Music 337, 338
Political Science 342
Sociology 304
Speech 210
Theater 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 650-5038, Peck Hall, room 3402. For advisement, contact the Black Studies adviser, Reggie Thomas, Dunham Hall, room 2106. A description of the program and a schedule of courses offered each term are available at the office.

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 Philosophical Studies.

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.

Requirements

The minor in classical studies requires 20 credit hours of courses designated classical studies. Of these, eight hours are required either in Greek or in Latin. Credit is granted only for those courses in which grades of C or above are earned.

Greek 101, 102 — Introduction to Greek
Greek 201, 202 — Intermediate Greek
Greek 499a-f — Readings in Ancient Greek
Latin 101, 102 — Introduction to Latin
Latin 201, 202 — Intermediate Latin
Latin 499a-f — Readings in Latin
Foreign Languages and Literature 106 — Building Vocabulary Through Latin and Greek Word Elements
Foreign Languages and Literature 401 — Comparative Latin and Greek Grammar
English 303 — Literary Masterpieces: Ancient and Medieval
English 310 — Classical Mythology and Its Influence
History 113 — Civilization of the Ancient World
History 302 — Ancient Egypt
History 303 — History of Ancient Near East
History 304 — History of Greece
History 306a,b — History of Rome
Philosophy 300 — Ancient Greek and Roman Philosophy
Philosophy 440 — Classical Political Theory Same as Political Science 484
Art 225a — History of World Art

Art 447a,b — Ancient Art

Because the following courses have variable content, they require advance approval by the Coordinator of the Classical Studies minor:

Foreign Languages and Literature 390 — Readings

English 478 — Studies in Women, Language, and Literature Same as Women's Studies 478

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

Art 470 — Topics in Art History

For more information, please contact the coordinator of classical studies, currently Carl Springer, Associate Dean, College of Arts and Sciences, Peck Hall, room 3432, (618) 650-5058.

Minor in Peace and International Studies

The peace and international studies minor is interdisciplinary and allows students to receive recognition for pursuing a particular concentration of courses related to the international community. This minor is especially appropriate for students planning to enter professions such as journalism, radio or television newscasting, 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. For details and advisement, call (618) 650-3375, or visit the coordinator of the Peace and International Studies Program in Peck Hall, Room 0414.

Students desiring a minor in Peace and International Studies must choose a concentration in one of four available areas: (1) World Peace Studies, (2) Western European Studies, (3) Latin American Studies, or (4) African Studies. Some courses listed for the concentration have prerequisites, which are not included in the listing. Note also that courses used for one's major cannot be used for this minor. Students choosing the 2nd, 3rd, or 4th concentration must take IS 340, The Problem of War and Peace, as their IS course for graduation.

Requirements

(1) World Peace Studies Concentration (21 hours):

Required Courses (12 hours):

- IS 340 — The Problem of War and Peace
- POLS 370 — Introduction to International Relations
- POLS 472 — International Organizations (Plus one of the following courses related to war in the 20th century)
- HIST 344b — History of American Diplomacy since 1919
- HIST 416 — World War I and its Aftermath: 1914-1921
- HIST 418 — World War II
- HIST 422b — Late Modern Europe (WW I through WW II)

Elective Courses (select 9 hours)

- ANTH 452 — Political Anthropology
- ECON 361 — Introduction to International Economics

ECON 425 — Economic Systems

ECON 461 — International Trade Theory & Practice

ECON 450/FIN 450 — International Finance

GEOG 300 — Geography of World Population

HIST 318b — History of Russia (since 1914)

HIST 422c — Late Modern Europe (since WW II)

HIST 454 — History of the Arab-Israeli Conflict

HUM 310a,b — Esperanto [or HUM 150 — Basics of Esperanto]

IS 336 — Global Problems & Human Survival

IS 364 — The Atomic Era: European Refugees, American Science, & the Bomb

MKTG 476 — International Marketing

PHIL 340 — Social and Political Philosophy

PHIL 344 — Socialism & Social Democracy ECON 463 — Introduction to Economic Development & Growth

PHIL 440/POLS 484 — Classical Political Theory

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

SOC 200 — Cooperation & Conflict

All courses listed above under required courses but not used as required courses can also be used as elective courses. All courses listed below under the various area concentrations can be used as electives for this world peace studies concentration. Special topics and independent/special readings courses in anthropology, economics, French, geography, German, history, humanities, philosophy, political science, sociology, and Spanish also may be used as electives for any concentration in the peace and international studies minor when appropriately focused, as determined by the coordinator. The coordinator may also approve other appropriate substitutions when courses are not available.

In addition to the concentrations listed below as part of this Peace and International Studies program, a 26-hour minor is available in Russian area studies under the Department of Foreign Languages and Literature.

(2) Western European Studies Concentration (21 hours):

Students taking this concentration must choose option B (17 hours) under General Education Requirements and must take French or German as their foreign language.

Required Courses (12 hours):

- HIST 422b — Late Modern Europe: World War I through World War II
- HIST 422c — Late Modern Europe: Europe since World War II
- Six hours of additional courses in French or German at 300 or 400 level. Note the prerequisites for these courses at the advanced level.

Elective Courses (select 9 hours)

- FL 491 — Cultural and Language Workshop (appropriate topic)
- GEOG 330 — Geography of Europe
- HIST 322 — History of Italy
- POLS 350 — Political Systems of Western Europe
- HIST 413 — History of Modern France
- HIST 415 — Modern German History
- HIST 422a — Late Modern Europe: Vienna Congress to the Great War
- PHIL 441/POLS 485 — Modern Political Theory or additional courses in French or German at 300 or 400 level. Note the prerequisites for these courses at the advanced level.

(3) Latin America Studies Concentration (21 hours):

Students taking this concentration must choose option B (17 hours) under General Education Requirements and must take Spanish as their foreign language.

Required Courses (12 hours):

- HIST 360b — History of Latin America (since 1580)
- IS 326 — Modern Latin America
- SPAN 312 — Contemporary Spanish America
- SPAN 352 — Survey of Spanish-American Literature:
Colonial Period to Present. Note the prerequisites for
these Spanish courses at the advanced level.

Elective Courses (select 9 hours)

- ANTH 307 — People & Culture of Latin America & the Caribbean
- ANTH 333 — Origins of New World Civilization
- ANTH 463 — Introduction to Economic Development & Growth
- FL 491 — Cultural and Language Workshop (appropriate topic)
- GEOG 334 — Geography of Latin America
- HIST 360a — History of Latin America (from pre-Columbian to 1850)
- HIST 461 — Central America & the Caribbean in the 20th Century
- POLS 355 — Political Systems of Latin America Or additional courses in
Spanish at 300 or 400 level. Note the prerequisites for these courses at the
advanced level.

(4) African Studies Concentration (21 hours):

Students taking this concentration must choose option B (17 hours) under General Education Requirements and must take French as their foreign language.

Required Courses (15 hours):

- ANTH 310 — People & Culture of Africa
- 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.
Three hours of additional courses in French at 300 to 400 level. Note the
prerequisites for these courses at the advanced levels.

Elective Courses (select 6 hours):

- ECON 463 — Introduction to Economic Development & Growth
- ENG 340 — Literature of the Third World
- FR 457 — African & Caribbean Literature of French Expression
- FL 491 — Cultural Language and Workshop (appropriate topic)
- GEOG 401 — Area Economic Development Or additional courses in French
at 300 or 400 level. Note the prerequisites for these courses at the
advanced levels.

Minor in Religious Studies

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 hours of which are required courses: PHIL 333, Philosophy of Religion; PHIL 334, World Religions; and, PHIL 336, Christian Thought. Students must successfully complete (earn a grade of C or above) PHIL 106, Critical Thinking, or its equivalent, before they apply for a minor in religious studies. PHIL 106, or its equivalent, does not count for credit toward the minor in religious studies. Students select elective courses from those approved by the adviser as appropriate to the minor. The adviser will provide a list of appropriate courses from a variety of disciplines, including anthropology, art and design, english, history and philosophy. Only 3 credit hours of courses counted toward a major in philosophy may also count toward the religious studies minor.

Elective courses for the proposed minor, which would be approved by the adviser, might include such courses as the

following:

- ANTH 410 — Anthropology of Religion
- ART 448 a; b — Early Christian, Byzantine, and Medieval Art, and
Romanesque & Gothic Art
- ENG 306 — Introduction to the Bible
- FL 330 — Celtic Culture: Mythology and Religion
- HIST 306b — History of Rome, Principate, 30 B.C. - A.D. 476
- HIST 308a — Imperium and Christianity, Western Europe 300 —
1000 CE.
- HIST 308b — Medieval Conquests and Kingdoms, 1000-1500 CE.
- HIST 313 — Witchcraft, Magic and the Occult
- HIST 321 — Reformation Europe, 1500-1648
- HIST 354a, b — History of the Arab World
- HIST 404a, b — Topics in Medieval Social, Religious, and
Intellectual History
- HIST/WS 428 — History of Female Spirituality
- PHIL 220 — Religion, Reason and Humanity
- PHIL 301 — Medieval Western Philosophy

In addition, the Departments of Historical Studies and Philosophy have special topics courses which could be appropriate, depending on the topics.

Admissions Requirement

Undergraduate students who intend to apply for a minor in religious studies must complete (with a grade of C or above) PHIL 106, Critical Thinking, or its equivalent.

Minor in Women's Studies

Women's studies is a growing interdisciplinary field that emphasizes gender perspectives and contributions of women. Women's experience and learning styles often have been omitted from traditional curricula and textbooks. Consequently, women's studies courses focus on issues relating to gender as well as many untold stories of women, their lives, and their work.

Since its beginning in the United States in the early 1970s, women's studies has generated much scholarly inquiry into gender difference. In particular, women's studies encourages equal dignity and empowerment for women and men, and examines teaching styles and educational theories that incorporate women's concerns and experience.

A background in women's studies is valuable in the

Required Courses	3 hrs.
WMST 200	
Departmental Courses	15 hrs.

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.

ANTH/WMST 313, 402 and 426; ART/WMST 473 a and

b; BIOL/WMST 450; EPFR/WMST 451; ENG/WMST 341 and 478; FR/WMST 456; HIST/WMST 314, 428 and 440; IS/WMST 350 and 353; MC/WMST 351; PHIL/WMST 345 and 346; PSYC/WMST 405; SOC/WMST 308, 391, 394 and 444; SPC/WMST 331; WMST 390, 490, 495, 499

See the Course Descriptions section for descriptions of women's studies courses, including courses cross-listed with departments. For more information, please contact the office, Peck Hall, room 3407, 618-650-2744, or Anne Valk, Coordinator, Peck Hall, room 3227, 618-650-3660, or by e-mail at avalk@siue.edu. The women's studies Web site is www.siue.edu/WS/.



S c h o o l o f B u s i n e s s

**Timothy S. Schoenecker, Ph.D.
Interim Dean and Associate
Professor**

www.siue.edu/business

SIUE is 50!

Since 1957, SIUE has grown from 1,776 students to nearly 13,500. Join us as we reflect upon and celebrate the accomplishments of students, faculty, alumni, and community members who have helped make SIUE the premier Metropolitan University we are today. Visit our Web site for 50th Anniversary event details:

www.siue.edu/50

School of Business

Professors: Bock, D.B.; Bordoloi, B.; Costigan, M.; Hafer, R.W.; Kutan, A.; Lovata Rutz, L.M.; Meisel, J.B.; Navin, J.; Segal, M.N.; Strickland, D.E.; Sumner, M. (Associate Dean); Werner, D.J. (Chancellor Emeritus)

Associate Professors: Bharati, R.C.; Boldt, M.; Douglas, T.; Giacobbe, R.W.; Joplin, J. (Associate Dean); Michlitsch, J.F.; Moore, J.E.; Pannirselvam, G.; Powell, A.; Reed, B.; Schoenecker, T. (Interim Dean); Swanson, L.; Watson, G.; Yager, S.

Assistant Professors: Berkley, R.; Demirel, R.; Evrensel, A.; Gupta, M.; Hackard, J.C.; Hersherberger, E.K.; Hunt, A.; Jia, J.; Love, M.S.; Rose-Green, E.; Spivey, C.; Ward, M.; Williams, C.

Instructors: Beck, H.L.; Brant, S.; Dixon, J.; Gorman, A.; Harting, K.; Hileman, J.; Hunt, J.; Keister, T.; Madupalli, R.; Mussulman, J.; Pettit, M.A.; Phillips, R.R.; Richards, W.D.; Sullivan, T.S.; Unverzagt, J.; Wolff, L.A.

The School of Business offers undergraduate degree programs designed to:

- 1 prepare students for careers in business and related fields,
- 2 provide an educational foundation for advanced study in one or more of the business disciplines and lifelong learning, and
- 3 encourage students to develop an understanding of the social, political, technological, legal, and economic environments in which business decisions are made. These curricula stress the development of oral, written, and interpersonal skills, analytical reasoning, conflict resolution, and an understanding of the effects of culture, globalization, and time on the choices students may make.

The undergraduate and graduate programs offered by the school are accredited by the Association to Advance Collegiate Schools of Business.

The school offers the following undergraduate degree

programs: the bachelor of science in accountancy, the bachelor of science in business administration, the bachelor of science in business economics and finance, and the bachelor of science in computer management and information systems.

Declaration into a School of Business Program

Pre-Business Status

Students may enter pre-business status after completion of all required skills courses [English 101 and 102, Speech Communication 104 or 105, Philosophy 106 (or Mathematics 106 or Industrial Mechanical Engineering 106) and Computer Management and Information Systems 108] and attaining a 2.250 collegiate grade point average. Once students are classified as pre-business students, they will be advised in the Office of Business Student Services unless the student changes to a different program.

Minors (for non-business majors)

Students may declare a 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 2.00 cumulative grade point average. Once students are accepted as a minor, they must meet with a business advisor for advisement and registration for upper-level business courses.

Full Admission to a Major in the School of Business

Students seeking to enroll in 300-level business courses must submit an application for admission into their major program. Students who are not accepted into a program will not be allowed to enroll in 300- or 400-level business courses.

Application Deadlines

Application Deadline

February 1	Summer Term and Fall Semester
September 15	Spring Semester

Review of Applications

Applicants are reviewed by the Undergraduate Admissions Committee of the School of Business and notified of their status within 45 days of the application deadline for the term for which they are seeking admission. An applicant to the School of Business will be considered ready to be reviewed for admission when all of the following criteria are met:

- 1 admission to the University.
- 2 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 Website www.siu.edu/business, or in Business Student Services, on the third floor of Founders Hall. An application file is considered complete when the application form, essay, and a record of current course enrollment are in the applicant's file. Applicants also must ensure that all transcripts from 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. Applicants are responsible for ensuring that their materials are received by February 1 for summer and fall admission and by September 15 for spring admission. All materials must be in the applicant's file before the deadline in order for the applicant to be considered for admission. Early completion of the application file is strongly encouraged.
- 3 successful completion of the twelve prerequisite courses with a grade of C or better. (Note: Students who apply for summer or fall admission must have all 12 prerequisite courses completed by the end of the spring semester. Students who apply for spring admission must have all 12 prerequisite courses completed by the end of the fall semester.)
Prerequisite courses:
 - English 101 and 102
 - Speech 104 or 105
 - Philosophy 106 (or Math 106)
 - Computer Management and Information Systems 108
 - Economics 111 and 112
 - History 111B (or approved substitute)
 - Political Science 112
 - Math 120
 - Accounting 200
 - Management Science 250
- 4 minimum prerequisite grade point average of 2.25 on a 4.0 scale and a minimum cumulative grade point average required by the program to which the student seeks admission.

Admission Decisions

Admission decisions 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.

Transfer students will follow the application process described above and 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.

Students who are not admitted to a business program will not be allowed to enroll in 300- or 400-level business courses.

Academic Policies

Retention

In order for a student to remain in the School of Business or to continue as a pre-business student, a 2.250 cumulative grade point average must be maintained. (Students in the accountancy, the computer management and information systems program and the business administration/management information systems are required to maintain a 2.500 grade point average.) Students also are required to progress toward degree completion each semester. Consult the appropriate program section of this catalog for more information about retention requirements. Students who do not meet retention requirements for two consecutive terms will be separated from the School of Business.

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.

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 maintain a cumulative university and business grade point average of 2.250 or higher, as required by the particular program. Consult the particular major section of this catalog for 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. 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 required assessment activities in order to graduate.

Each undergraduate business program requires the completion of a minimum of 124 semester hours of acceptable credit. Once credit has been earned for a course (by taking the course, a proficiency exam, transfer credit or CLEP exam), additional credit may not be applied toward graduation requirements by taking similar or lower-division courses in that area at the University or another institution.

All 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 must obtain prior approval from the program director and the associate dean for academic affairs of the School of Business before taking business course work at another institution that is intended to satisfy a University degree requirement.

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. Further,

all qualified students seeking to enroll in business courses for the first time will be given priority over those students seeking to repeat business courses.

School of Business Student Services

The School of Business Student Services Office helps students schedule courses to meet program requirements and provides guidance to those with academic problems. This office also will assist students who seek career advice by suggesting the names of faculty 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.

International Exchange Programs

The School of Business has developed student and faculty exchange programs with business schools and universities in France, Germany, Great Britain, Mexico, and The Netherlands. These programs permit students to pay tuition and register for course work at the University while completing the requirements for credit at one of these foreign institutions. Participation in an exchange program will meet the multicultural requirement for graduation. 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, Southern Illinois University Edwardsville, Edwardsville, IL 62026, phone (618) 650-3412.

Cooperative Education and Internships

For enrollment certification purposes, University-sponsored 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.

Accountancy

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 upon which they may grow professionally in the practice and study of accounting as they progress throughout their careers.

Career Opportunities in Professional Accounting

Several career paths are available to graduates from 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.

Admission, Retention and Graduation

To be admitted to the bachelor of science in accountancy program, students must meet all requirements for admission to the School of Business. Students not admitted to the accountancy program are only allowed to enroll in Accounting 301, 311 and 340. To take additional courses in Accounting, the student must be admitted to the major. In addition, students must have at least a 2.5 grade point average overall at the University and in all required accounting courses taken at the University. Students who fail to maintain at least a 2.5 grade point average at the University, both overall and in required accounting courses, may not take additional accounting courses until the grade point requirements are met. (They may repeat those taken previously, subject to School of Business policy.) Students remaining below a 2.5 grade point average—either overall or in required accounting courses—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.

Graduation in accountancy requires a 2.5 grade point average overall at the University and in all required accounting courses taken at the University. Students are required to have at least a 2.25 gpa in all business courses required for the accounting degree. Candidates also must satisfy the program research requirement and the University's senior assignment requirement.

Before admission to the program, students should consult with an adviser in the School of Business Student Services office to plan a program of study.

Business Administration

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.

Students may elect to pursue an approved specialization. Those who do not elect a specialization may take no more than 15 hours in a given business discipline beyond the foundation areas. School of Business courses used to meet the interdependency and multicultural perspective requirements will be counted as part of the 15 hours. Students are encouraged to select their specializations and electives in consultation with the faculty and an academic advisor in Business Student Services.

Admission, Retention and Graduation

To be admitted to the bachelor of science in business administration program, students must meet all requirements for admission to the School of Business. Once admitted to the program, students must maintain at least a 2.25 overall grade point average, or they will be placed on academic probation. Students on academic probation are given one semester to improve their grade point average to a

2.25 or they will be subject to removal from the School of Business.

Graduation from the BSBA program requires at least a 2.25 grade point average overall at the University and in all required business courses taken at the University. Candidates also must satisfy the program research requirement and any required assessment activities.

Before admission to the program, students should contact the School of Business Student Services Office to consult with an adviser to plan a program of study.

Areas of Specialization, Electives, and Career Opportunities

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.

Computer Management and Information Systems

The computer management and 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.

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 economics courses.

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.

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.

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.

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.

(28 Hours) Students must complete one of these language and study abroad options:

Option A: FL 101, 102, 201, 202, 301, FL 111x; one 300- or 400-level FL elective; one full semester of study abroad totaling 12 to 15 hours.

Option B: FL 101, 102, 201, 202, 301, FL 111x; two 300- or 400-level FL electives and study abroad for 3 hours (study or service learning trip); and four of the following: MGMT 461; ECON 361, 461; MKTG476; FIN 450.

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.

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.

Minor for Non-Business Majors

Students who have declared their major in a non-business field may earn a 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 enroll in any 300- or

400- level business courses, students must have completed general education requirements as specified by their major. To earn a minor in business administration, students must complete a minimum of 21 credit hours (maximum of 30 credit hours) in approved courses work as specified below:

Required Courses: 9
ECON 111, 112; ACCT 200
Elective Courses 12-21

Students may choose from any course offered through the School of Business with the exception of CMIS 108 and MS 250. 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 student's educational and career objectives.

To earn a minor in business, 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 other course work leading to the 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 any of these minors.

Students interested in a business minor should contact the School of Business Student Services Office for help in planning a minor program.

Business Economics and Finance

Career Paths

The bachelor of science degree 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.

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 non-traditional 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.)

Admission, Retention, and Graduation

For admission to this major, students must meet all requirements for admission to the School of Business. See the program director in the Department of Economics and Finance for more information. Admitted majors are advised by members of the department faculty. To exit the program, candidates must present to the faculty their research projects from FIN 430 or from Economics or Finance 415 or 417. A grade of C or better is required in at least one research course (FIN 430, Economics or Finance 415 or 417). To graduate, in addition to satisfying the degree requirements of the School of Business, students must have a 2.25 average in all economics and finance courses. No credit is granted for correspondence or extension courses.

Computer Management and Information Systems

The bachelor of science major 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.

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.

Admission, Retention, and Graduation

To be admitted to the B.S. in computer management and information systems, students must meet all requirements for admission to the School of Business. Students must maintain a 2.5 GPA to be retained by and graduate from the CMIS program. More information about the program can be obtained by contacting the program director within the Department of Computer Management and Information Systems and advisers within the School of Business Student Services Office. Through their partnership with industry, faculty are able to design courses using state-of-the-art methods and technologies that are greatly needed in the job market and develop contacts for student internships, student project opportunities, and job prospects for graduating students.

School of Business Program Requirements (applies to all degree programs)

General Education	39-45
Skills Courses	15
English 101*, 102*	6
Speech 104* or 105*	3
Philosophy 106* or Mathematics 106*	3
CMIS 108*	3
Fine Arts and Humanities (must include one survey of literature course)	6
Introductory Fine Arts or Humanities	3
Distribution Fine Arts or Humanities	3
Natural Science and Mathematics	6-9
Mathematics 120*	3
Introductory or Distribution laboratory science	3
Note: If the laboratory science course chosen is Introductory, student must take at least one distribution natural science and mathematics course (3 hours).	
Social Sciences ***	9
Economics 111*	3
Economics 112*	3
History requirement **	3
Interdisciplinary Studies (IS) IS 401 satisfies the IS requirement for business majors.	
Intergroup Relations (IGR)	0-3
MGMT 341 satisfies the IGR for business majors.	
International Issues or International Culture	0-3
The history requirement satisfies the International requirement for business majors.	
Note: University general education requirements state that students must take at least 5 introductory courses (15 hours) and 3 distribution courses. Students should consult with an academic adviser to ensure proper completion of general education requirements.	

Special Business Major Requirements	10
Management Science 250*	3
Management Science 251*	4
Political Science 112*	3
Total	49-55

- * Courses that require a grade of C or better; rule also applies to courses below with notation.
- ** A list of approved courses is available from the School of Business Student Services Office. Students seeking the bachelor of science in business economics and finance should take History 111b.
- *** Students enrolled in the bachelor of science in business economics and finance cannot count Economics 111 as an introductory general education course or Economics 112 as a distribution course. Political Science 112 will meet a distribution social science requirement.

General School of Business Requirements

Program Core Requirements	27
Accounting 200* (B or higher for Accountancy majors)	3
Finance 320	3
Management 340, 341, 441*	9
Computing Management and Information Systems 342	3
Marketing 300	3
Production and Operations Management 315	3
Interdisciplinary Studies 401	3
Total Hours: General Education, Special Major, and General School of Business Requirements	76-82

Degree Requirements

Bachelor of Science

Accountancy

Total hours for General Education, Special Major, and General School of Business Requirements	76-82
Accounting 301, 302, 303, 311, 312, 315, 321, 340, 401, 431	30
Research requirement: all students must take an approved course that includes a significant research report. The research requirement normally will be met by taking Accounting 303 or other course specified by the department.	
Electives outside the School of Business	12-18
Total Program Requirements	124

Degree Requirements

Bachelor of Science

Business Administration

Total hours for General Education, Special Major, and General School of Business Requirements	76-82
Accounting 210*	3
Research Requirement*:	3
To be selected from the following list of courses that contain a significant research component: Economics 417, Finance 430, Marketing 377, MS 312, CMIS 470 or approved non-business research course	
Specialization Courses	12-18
Electives (including 1 Business elective)	18-30
Total Program Requirements	124

Degree Requirements

Bachelor of Science

Business Economics and Finance

Total hours for General Education, Special Major, and General School of Business Requirements	76-82
Required	30
Accounting 210*	3
Economics 111*	3
Economics 112	3
Economics 301	3

Economics 302	3
Economics or Finance 415 or 417	3
Finance 320**	3
Finance 420	3
Finance 430*	3
Finance 460	3

From the following elective groups, students must choose two courses from Economics, one course from Finance, and one course from International:	12
Economics: 221, 327, 331, 341, 344, 345, 361, 400, 415, 417, 435, 445, 461	
Finance: 341, 344, 400, 415, 417, 431, 435, 440, 460, 470, 480	
International: ECON 461 or FIN 450	
Free Electives	0-6
Total	124

* Course requires a grade of C or better.

** FIN 320 is counted under general School of Business requirements. A grade of C or higher is required in FIN 320 for this degree.

Note: To exit from the program, candidates must present to the faculty their research projects from FIN 430 or from Economics or Finance 415 or 417.

ECON/FIN 415 AND 417 may not count as both an elective and a required course.

A grade of C or higher is required in at least one research course, ECON/FIN 415, 417 or FIN 430.

Degree Requirements

Bachelor of Science

Computer Management and Information Systems

Total hours for General Education, Special Major, and General School of Business Requirements	76-82
Accounting 210*	3
Research Requirement* (normally met by CMIS 470)	3
Computing Core	24-26
CMIS 142, 230, 270, 310, 450, 468	
Elective (two of the following)	
CS 140, 150, CMIS 260, 300, 430, 460, 462, 472, 488, 490, or 495	
Electives outside the School of Business	12-18
Total Program Requirements	124

Air Force ROTC

Adjunct Faculty: Maj. D. O Bray; Col. M. Scott; Capt. J. Wendell; Capt. F. Williams

Aerospace Studies

The aerospace studies program (AFROTC) is divided into two parts: the general military course (freshman/sophomore curriculum), and the professional officer course (junior/senior curriculum). The general military courses cover two main themes: The Air Force Today and The Air Force Way. The professional officer courses emphasize the professional development of the future Air Force officer. The curriculum covers Air Force leadership, management, and preparation for active duty. Field trips to Air Force bases supplement classroom instruction and familiarize the cadet with Air Force

operations and organizations.

Leadership laboratory is taken two hours per week throughout the student's enrollment in AFROTC. Instruction is conducted within the framework of an organized cadet corps with a progression of experiences designed to develop each student's leadership potential. The first two years of the leadership laboratory include a study of Air Force customs and courtesies; drill and ceremonies; issuing military commands; instructing, directing and evaluating the preceding skills; studying the environment of an Air Force officer; and learning about areas of opportunity available to commissioned officers.

The last two years of the leadership laboratory consist of activities classified as advanced leadership experiences. They involve planning and controlling military activities of the cadet corps; preparing and presenting briefings and other oral and written communication; and providing interviews, guidance, and information that will increase understanding, motivation, and performance of other cadets.

AFROTC cadets also must successfully complete supplemental courses to enhance their utility and performance as commissioned officers. These include University courses in English composition and mathematical reasoning. Specific courses are designated by the professor of aerospace studies.

Field training provides leadership and officership training in a military environment, which demands conformity to high physical and moral standards. Within this structured environment, cadets are screened for officer potential as measured against field training standards. Motivation and professional development are achieved through various programs such as flight orientation, marksmanship, and survival training. Cadets in the four-year program participate in four weeks of field training. Cadets in the two- or three-year programs (except for prior AF service) must attend the six-week field training session, which is identical to the four-week program plus 90 hours of general military curriculum. Field training is offered during the summer months at selected bases throughout the United States, usually between a student's sophomore and junior years. Major areas of study include Air Force orientation, officer training, aircrew/aircraft orientation, survival training, base functions and physical training.

Students who apply for entry into the two- or three-year programs must successfully complete six weeks of field training before enrolling in the professional officer course. The major areas of study included in the six-week field

training program are essentially the same as those conducted at four-week field training, plus the academic curriculum of the general military course, including leadership laboratory. No direct academic credit is awarded for field training.

Federal and state scholarships are available for AFROTC cadets; students with any academic major may apply. Applications may be submitted by detachment personnel to Head Quarters Reserve Officers Training Corps (AFROTC), Maxwell Air Force Base, Alabama. For more information, please call (888) 423-7682.

Army ROTC Military Science

Adjunct Faculty: Bearthal, S.; Cloud, M.; Ellison, L.; Tucker, R. (Major, U.S. Army); Porch, M. W.

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 program normally earn commissions as lieutenants in the United States Army and go on to serve in either the Active Army Reserve or Army National Guard.

Army ROTC

ROTC may be completed in several different ways as outlined below.

- 1 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) and to provide all necessary uniforms.
- 2 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 four-

year option or are community college transfer students are eligible for enrollment. Basic prerequisites for entering the two-year option are:

- a good academic standing (minimum 2.0 GPA) and passage of an Army medical examination.
- b two academic years of study remaining (undergraduate or graduate). If students are undergraduates, they must have junior status or at least 54 credit hours.

Simultaneous Membership

Students who qualify for simultaneous membership (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 or select active duty.

Veterans

Veterans of any of the armed forces who are academically aligned may qualify for advanced placement and should contact the Military Science Office for details.

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 www.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 any of the physical sciences. Scholarship students normally incur a four-year active duty obligation. They may request reserve duty to serve with the National Guard or Army Reserve, or may initially compete for scholarships that guarantee Reserve or Guard duty.

In addition, 40 Illinois State Army ROTC scholarships are available annually. These scholarships pay for tuition on a charter basis and are renewable. Please contact the Military Science Office for more details.

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 32 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.

Academic Preparation

The SIUE Army Reserve Officers' Training Corps academic preparation consists of three parts:

- 1 earning a degree in the student's chosen field of academic study/major; and
- 2 completing 22 semester hours (four-year option) or 12 semester hours (two-year option) of the military science curriculum; and
- 3 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.

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.

Extracurricular Activities 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.

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 Guard and Reserve vary by state.

Select graduate students at SIUE also are eligible for enrollment in the ROTC two-year program.



S c h o o l o f E d u c a t i o n

Bette S. Bergeron, Ph.D.

Dean and Professor

www.siue.edu/education

SIUE is 50!

Since 1957, SIUE has grown from 1,776 students to nearly 13,500. Join us as we reflect upon and celebrate the accomplishments of students, faculty, alumni, and community members who have helped make SIUE the premier Metropolitan University we are today. Visit our Web site for 50th Anniversary event details:

www.siue.edu/50

School of Education

The School of Education offers undergraduate programs in professional education, psychology, and speech pathology and audiology. Professional education programs prepare students for teaching positions in early childhood education, elementary education, health education, secondary education, special education, and physical education. SIUE's teacher education programs prepare persons for various teaching fields through a blend of course work, field experiences, and student teaching. Teacher education programs at SIUE are partnership-based in public schools in the 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 pathology and audiology majors pursue a program of study for the purpose of helping people who have communication disorders. Certification in speech pathology occurs at the graduate level. The Department of Kinesiology and Health Education offers options for students interested in exercise and wellness and community health. Through any of the undergraduate programs, students may become qualified to enter graduate studies in the School of Education.

The School of Education is accredited through the National Council on the Accreditation of Teacher Education (NCATE). All teacher education programs are recognized nationally through NCATE and the content area specialty professional associations, and the school and programs are approved by the Illinois State Board of Education (ISBE).

Admission and Advisement

Procedures vary for admission to different programs in the School of Education. Therefore, students should consult the appropriate department chair for specific information.

Students interested in teacher education may contact the Office of Clinical Experiences, Certification and Advisement (OCECA). Admission to the University or to a degree program in an academic department does not necessarily constitute acceptance into a teacher certification program. Teacher education students must be

officially admitted to teacher education to secure a student teaching assignment, be graduated in teacher education, and qualify for a teaching certificate. For admission into any program in teacher education, a student must present a 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 Certification Testing System Test of Basic Skills. Students apply to teacher education programs in OCECA. Attaining the minimum criteria does not guarantee admission & program-specific criteria may change based, in part, on resources, capacity & size of applicant pool.

Degrees

The School of Education grants the bachelor of science degree with majors in early childhood education, elementary education, health education, physical education, and special education. The bachelor of arts and bachelor of science degrees with majors in psychology and speech pathology and audiology also are offered.

Teaching Certificates

Upon successful completion of a teacher education program and passing the Illinois Certification Testing System Test of Basic Skills (one of the admission requirements for teacher education), the appropriate content test (required for the student teaching placement), the appropriate assessment of professional teaching and other applicable tests, students qualify for a teaching certificate in the State of Illinois and may apply for teaching certificates in other states. Students seeking degrees in other majors may qualify for a 6–12 secondary or a K–12 special certificate by completing an approved program in teacher education. Speech pathology majors who wish to pursue certification must first obtain a master's degree.

The following undergraduate teacher education programs are available:

Pre-Student Teaching Clinical Experiences

The Illinois State Board of Education requires a minimum of 100 clock hours of pre-student teaching clinical experiences in the area for which a student seeks certification. This experience, which must be completed and documented prior to student teaching, is arranged through the Office of Clinical Experiences, Certification and Advisement, Founders Hall, room 1110.

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, the certification requirements of Illinois, and the standards of the National Council for the Accreditation of Teacher Education.

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. 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 Certification Testing System Content Test before they can begin their student teaching placement. In addition, each department that has a program leading to teacher certification has established policies regarding the application for student teaching. Students should secure student teaching information from an adviser in the appropriate department. Junior and senior transfer students should contact an adviser for application information during or before orientation. Student teaching application packets may be obtained from the Office of Clinical Experiences, Certification and Advisement, Founders Hall, room 1110. Students should check with that office for application deadline dates.

The School of Education 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 35 miles of the university. Pre-student teaching clinical experiences and student teaching will provide teacher candidates with a breadth of experiences in diverse settings.

Following are additional prerequisites for registering for and receiving an assignment for student teaching:

- 1 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 OCECA adviser to make certain they are meeting requirements of an approved program well in advance of student teaching.

- 2 Student teaching assignments are made after admission to the School of Education 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.
- 3 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 courses.
- 4 Students must have completed all required major and professional education courses, as well as all pre-student teaching clinical experiences.
- 5 In compliance with University policy, record of a physical examination taken no more than 90 days prior to the student teaching assignment must be on file in University Health Service. A report of a tuberculosis skin test or X-ray taken within the same period also is required.
- 6 In addition to the physical examination record, the student teaching application packet includes a student profile sheet, record of eligibility, and Illinois certification application. All forms must be completed with assistance from other University personnel and submitted by the posted due date.

Note: 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 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 Cannabis 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.

Curriculum and Instruction

Full Professor: Bergaron, B.S.

Associate Professors: Breck, S.E.; Bushrow,

K.M.;Latorre, M.P.; McAndrews, S.L.; O'Donnell, B.D.; Searcy, L.; Smith, R.E. (Chair); Taylor, A.R.; Wilson, R.G. (Asst. Provost for Social and Cultural Diversity)

Assistant Professors: Bolander, J.; Cordova, R.A.; DeWeese, D.L.; Gallagher, W.J.; Marlette, S.M.; McVicker, C.J.; Pryor, C.R.; Reading, G.D.; Sherwood, E.A.

Career Opportunities

The Department of Curriculum and Instruction offers programs leading to the bachelor of science degree in education. These programs fulfill requirements for initial certification to teach elementary education, early childhood education, and secondary education. Initial elementary certification includes kindergarten through grade nine. With the Illinois initial early childhood certificate, students are certified to teach children from birth through grade three. The initial secondary certificate provides certification for teaching grades 6 through 12. A middle grades endorsement is required to teach grades 6 through 8. Initial certification in art education, music education, and physical education provides certification for teaching kindergarten through grade 12.

Elementary Education Partnership Program Overview

The Elementary Education Partnership Program is a collaborative agreement between SIUE and public school districts whereby classroom teachers and university professors work together to provide elementary education majors a unique opportunity to regularly interact with K–9 students. This state-of-the-art program addresses both the new national standards set by the National Council of the Accreditation of Teacher Education and state standards set by the Illinois State Board of Education.

The elementary education two-year undergraduate partnership program is the only route to initial certification at SIUE for grades K–9. The elementary education program has a limited enrollment policy. The number of students admitted will depend on the resources available; admission to the elementary partnership program will 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 partnership program application before meeting eligibility requirements if they are in the process of completing the requirements. For admission requirements, please carefully read the appropriate partnership program information sheet and the admission policy handout available from the Office of Clinical Experiences, Certification and Advisement (OCECA). Applications must be turned in to OCECA by the posted due date. Applicants should verify their GPA and/or scores that OCECA advisers submit to the faculty for admission selection. Applications for the partnership program are available the first day of every spring semester. Notification of admission status is mailed to applicants in June prior to the program beginning the following fall semester. The program begins only in the fall. Meeting minimum eligibility requirements does not guarantee admission to the program.

Minimum Eligibility Requirements for the Partnership Program

- 1 completion of all skills courses (or approved equivalents) with a grade of C or better: ENG 101, 102, SPC 103/104/105, PHIL 106 and CMIS 108.
- 2 completion of CI 200 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 Basic Skills Test
- 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
- 8 limited number of non-partnership program classes remaining at the end of the summer term prior to admission to the program.

Requirements 1–5 above must be met before students may declare their major and are eligible for the Partnership Program. The ICTS Basic Skills Test is given only at scheduled times. Students should consult OCECA for test information.

To remain in the elementary 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. Normally, a student also must receive a satisfactory recommendation from the cooperating teacher and University instructor.

Degree Requirements

Bachelor of Science Degree

Elementary Education

The program in elementary education requires 51 hours of general education courses, 3 hours of health and physical development, 59 hours of professional education courses, and 15 hours in an academic emphasis. Transfer students may be required to complete additional hours in general education to meet certification requirements. Students seeking certification in elementary education must meet SIUE general education requirements.

General Education	51
Skills (including Mathematics)	15
ENG 101	3
ENG 102	3
SPC 103	3
PHIL 106	3
CMIS 108	3
Fine Arts and Humanities	6
MUS 111	3
Literature (Distribution course)	3
Interdisciplinary Studies	3
Natural Sciences and Mathematics	15
MATH 112a and 112b or approved equivalents	6
ESCI 111	3
Science	3
SCI 241a and b (lab) required at SIUE	3
Social Sciences	12
HIST 200 and 201	6
GEOG 111 and PSYC 111	6
Health and Physical Development	3
HED 201	3
Academic Emphasis (minimum 6-9 hours minimum at 300 or 400 level; consult adviser for specific, limited options)	15
Professional Education	59
Core and Elementary Pre-clinical Coursework	17
CI 200 (or equivalent)	2
PSYC 201	3
EPFR 320	3
EPFR 315	3
SPE 400	3
SPPA 490	3
Art 300a	3
KIN 330	3
Partnership	39
CI 314	3
CI 413	3
CI 337	3
CI 338	3
CI 343	3
CI 407	3
CI 415	3
CI 442	3
CI 445	3
CI 451a	10
CI 452	2

Total 128

The senior project, a University requirement, is an integral part of the elementary education program. Additional details are provided by program faculty and University supervisors.

Related Web Sites

www.siu.edu/education/oceca/elementary.html
www.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 (CI 200) 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 adviser.

Early Childhood Education

Partnership Program Overview

The early childhood education two-year undergraduate partnership program is the only route to initial certification at SIUE for ages birth through third grade. Students may submit a partnership program application before completing eligibility requirements if they are in the process of completing the requirements. The two-year partnership program is extremely competitive, has limited enrollment and requires faculty approval. For any partnership cohort, there may be more applicants than openings. For admission requirements, please carefully read the appropriate partnership program information sheet and the admission policy handout available from the office of Clinical Experiences, Certification and Advisement (OCECA). Applications must be turned in to OCECA by the posted due date. Applicants should verify their GPA and/or scores that OCECA advisers submit to the faculty for admission selection. Applications for the partnership program are available the first day of every spring semester. Notification of admission status is mailed to applicants in June prior to the program beginning the following fall semester. The program begins only in the fall.

Minimum Eligibility Requirements for the Early Childhood Partnership Program (Meeting eligibility requirements does not guarantee acceptance into the program.)

- 1 completion of all skills courses (or approved equivalents) with a grade of C or better: ENG 101, 102, SPC 103/104/105, PHIL 106 and CMIS 108.
- 2 completion of CI 200 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 Basic Skills Test
- 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
- 8 limited number of non-partnership program classes remaining at the end of the summer term prior to admission to the program.

Requirements 1-5 above must be met before students may declare their major or enroll in curriculum and instruction courses or required professional education courses. The ICTS Basic Skills Test is given only at scheduled times. Students should consult OCECA 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. A student also must receive a satisfactory recommendation from the cooperating teacher and University supervisor.

Selection Process for Partnership 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 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.

The early childhood education program at SIUE is delivered through a partnership program. The partnership program is a collaborative agreement between SIUE and public school districts whereby classroom teachers and university professors work together to provide early childhood education majors a unique opportunity to regularly interact with children birth to grade 3. This state-of-the-art program addresses both the new national standards set by the National Council for the Accreditation of Teacher Education and state standards set by the Illinois State Board of Education.

Degree Requirements Bachelor of Science Early Childhood Education

The program in early childhood education requires 57 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 certification requirements. Students seeking certification in early childhood education must meet SIUE general education requirements.

General Education	57
Skills (including Mathematics)	15
English 101	3
English 102	3
Speech 103	3
Philosophy 106	3
CMIS 108	3
Fine Arts and Humanities	9
Art 111	3
Music 111	3
Literature (a distribution course)	3
Interdisciplinary Studies	3
Natural Sciences and Mathematics	15
MATH 112a and 112b or approved equivalents	6
ESCI 111 or an introductory science	3
SCI 241 a & b(lab) required at SIUE	6
Social Sciences	12
History 200 and 201	6
GEOG 111 and PSYC 111	6
Health and Physical Development	3
HED 201	3
Academic Emphasis	18
(minimum 9 hours at 300 or 400 level; consult adviser for options)	
Professional Education	56
Core and Early Childhood Coursework	17
CI 200 (or equivalent)	2
CI 421	3
EPFR 315	3
EPFR 320	3
SPE 400	3
SPPA490	3
Partnership	39
CI 301	3
CI 316 (3, 1-hour)	3
CI 317	3
CI 323	3
CI 343	3
CI 324	3
CI 426	3
CI 414	3
CI 450	5
CI 451a	5
CI 452	2
SPE 440	3
Total	131

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 certification requirements. Information about these requirements is provided to undergraduates by the education advisers in the Office of Clinical Experiences, Certification and Advisement. Important notices are posted for review.

Related Web Sites

www.siu.edu/education/oceca/elementary.html
www.isbe.net/teachers/documents/tocminreq.htm

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 (CI 200) 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 adviser.

Requirements for Teacher Certification Secondary Education

Secondary education is a sequence of professional courses leading to an initial teaching certificate for secondary schools. In the first two years, students complete a program of general education in skills, fine arts and humanities, social sciences and natural sciences and mathematics. During this time, students also enroll in CI 200—Introduction to Education or its equivalent from another accredited university, and pass the designated Illinois Certification Testing System Test of Basic Skills. During the third and fourth years, students ordinarily complete work in the major teaching field and in professional education. Students must complete the mandatory 100+ pre-clinical hours prior to student teaching.

Students wishing to teach at the secondary level major in one of the following: art, biology, chemistry, earth and space science, English, foreign language, geography, health education, history, mathematics, music, physical education, physics, political science, or theatre. Students may choose one of two options:

- 1 Obtain a bachelor of arts degree in a major field and obtain teaching certification through courses offered by the Department of Curriculum and Instruction in the School of Education. (For example, a bachelor of arts degree in history through the College of Arts and

Sciences with teacher certification.) This option requires that students take a full year of a foreign language.

- 2 Obtain a bachelor of science degree in a major field and obtain teaching certification through courses offered by the Department of Curriculum and Instruction in the School of Education. (For example, a bachelor of science degree in history through the College of Arts and Sciences with teacher certification.)

Students do not obtain a major in secondary education in either of the two options. For both options, students major in an academic discipline other than education, and the degree is granted by the college or school 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 adviser in the major field, who is responsible for monitoring general education requirements, and an adviser in the School of Education, who is responsible for monitoring professional education and certification requirements.

Regardless of the degree option chosen, teacher certification requires admission into teacher education through the School of Education, professional education courses, 100 pre-clinical hours, and student teaching. Students need to be advised both by their major adviser and by an education adviser from the Office of Clinical Experiences, Certification, and Advisement as soon as possible.

Admission Requirements for Initial Teacher Certification, Secondary Education

To be considered for admission into the teacher certification program, students must:

- 1 have a cumulative grade point average of 2.5 or higher, including past institutions, and have an SIUE GPA of 2.5;
- 2 pass the Illinois Certification Testing System Test of Basic Skills;
- 3 receive a grade of C or above in five skills courses, and
- 4 complete successfully the introductory course, CI 200, or its equivalent with a grade of C or better.

Degree Requirements Secondary Teacher Certification

The following guidelines pertain to the completion of certification requirements. Some programs may take more than eight semesters for completion of certification requirements, depending on the teaching fields selected.

General Education.....	42-53
Students are required to fulfill all University general education requirements. Specific choices within that menu of courses may be required by the teaching major. Students are required to complete a total of eight courses in the three arts and sciences areas. The allocation of the eight courses depends upon the students' majors and interests; however, five courses must be at the introductory level, and three must be distribution courses.	
Skills Option A— 15 hours	15
English 101	3
English 102	3
Speech Communication 103	3
Foreign Language 106, Engineering Problem Solving 106, Philosophy 106 or Mathematics 106	3
Computer Science 108, CMIS 108 or Statistics 107.....	3
or	
Skills Option B, with a foreign language.....	15-17
English 101.....	3
English 102.....	3
A Foreign Language (101 & 102).....	6-8
Computer Science 108, Computer Management Information Systems 108, Engineering Problem Solving 106, Foreign Language 106, Philosophy 106, Mathematics 106 or Statistics 107.....	3
Liberal Arts (Fine Arts/Humanities, Natural Science/Mathematics and Social Sciences).....	24-33
Interdisciplinary Studies.....	3
Major in Teaching Field.....	36-76
See departmental outlines for specific information for each major.** Students may be required to complete a teaching methods course within the major.	
Minor, Second Teaching Field, or supporting courses.. ..	up to 32
Depending on the major, students may be required to complete a minor for broad field certification. Others may take courses that support their major but do not constitute a complete minor. Please consult the content major adviser for details.	
Professional Education	28
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.	
Curriculum and Instruction 200 (or equivalent).....	2
Curriculum and Instruction 315a	2
Curriculum and Instruction 315b	2
Curriculum and Instruction 352	10
Curriculum and Instruction 440	3
EPFR 320	3
EPFR 315	3
Special Education 400	3
Total	124-144

** 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.

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 adviser.

Educational Leadership

Professors: Nelson, W.A. (Chair); Smith, C.A.

Associate Professor: Lavelle, E.; Liu, Y.; Puchner, L.D.

Assistant Professors: Hunt, J.; Knowlton, D.S.; Karanovich, Frances B.; Liu, Y.; Morice, L.; Roseboro, D.; Szabo, Z.; Theodore, P.; Thomeczek, M.; Yu, T.

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.

Kinesiology and Health Education

Professor: Lox, C.L. (Associate Dean); Goldsmith, M.D.; Vogler, E. William (Chair)

Associate Professors: Cluphf, D.J.; Covington, N.K.

Assistant Professors: Burt, T.; Hurley, K.; Kaburakis, A.; Klein, N.; LeCheminant, J.; Schroeder, C.; Smith, J.

The Department of Kinesiology and Health Education (KHE) offers undergraduate programs for students interested in careers in kinesiology or health education. Students interested in careers in Kinesiology can earn a bachelor of science degree with a major in either Exercise and Wellness (E&W) or Physical Education Teacher Education (PETE). Students interested in careers in Health Education (HED) may earn a bachelor of science degree with two options— School Health and Community Health. The minor program in Kinesiology is under revision and is presently not admitting students. Please contact departmental advisors for the latest update. The department does offer a minor program in Health Education.

Students wishing to study Exercise and Wellness and/or

Health Education must apply in the Office of Academic Counseling and Advising. Students wishing to study PETE must apply by contacting the KHE departmental advisor or program director.

Activity Courses

In addition to offering the majors and minor, the Department of Kinesiology and Health Education offers a variety of physical activity courses. These courses, numbered KIN 112 through 270, may be taken on a pass/no credit basis.

Kinesiology

Majors (Exercise and Wellness; Physical Education Teacher Education)

Exercise and Wellness

The Exercise and Wellness major is professionally based for students interested in careers in related to lifetime physical activity and healthy lifestyles. Graduates of this program may have careers in corporate fitness and wellness, personal training, fitness/wellness promotion, strength and conditioning, cardiac rehabilitation, fitness research, exercise physiology, and other related fields.

Admission Criteria

To be admitted to the Exercise and Wellness major, students must:

- earn a grade of C or better in Biology 111 or its equivalent
- earn a C or better in Chemistry 120a and Chemistry 124a or their equivalents
- earn a B or better in KIN 318, Introduction to Exercise and Wellness
- have a cumulative grade point average of 2.75 or higher

Retention Standards for Exercise and Wellness Major

To remain in good standing in the Exercise and Wellness, students must maintain a cumulative grade point average of 2.75 or higher. In addition, students must 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 semester. Students not regaining the required 2.75 GPA following this probationary period will be dropped from the program and withdrawn from all kinesiology and health education courses. Students may reapply to the Exercise and Wellness major once their GPA has reached 2.75.

Students may only be on departmental probation once during their academic career and if the students GPA falls below the required 2.75, they will not be allowed to reapply to the Exercise and Wellness program.

Degree Requirements Bachelor of Science Exercise and Wellness

General Education	44
Written Expression	6
ENG 101 and 102	
Option A— Skills	9
SPC 103 or 105; CMIS 108 or STAT 107; MATH 106 or PHIL 106	
Introductory Courses	16
Fine Arts and Humanities (Select one.)	3
ART 111; ENG 111; FL 111; MUS 111; PHIL 111; SPC 111; THEA 111	
Natural Sciences and Mathematics	7
BIOL 111, CHEM 120a/124a	
Social Sciences	6
PSYC 111 and SOC 111	
Distribution Courses	10
Fine Arts and Humanities	3
PHIL 321 or SPC 201	
Natural Sciences and Mathematics	4
BIOL 240b	
Social Sciences	3
Distributed Social Science	
Interdisciplinary Course	3
Kinesiology	59
Theoretical Base	50
KIN 300 Strength Training and Conditioning	3
KIN 315 Functional Anatomy	3
KIN 316 Biomechanics	3
KIN 318 Introduction to Exercise and Wellness	3
KIN 410 Exercise for Special Populations	3
KIN 412 Body Composition	3
KIN 414 Exercise Adherence	3
KIN 416 Exercise Assessment and Programming	3
KIN 418 Public Health Aspects of Physical Activity	3
KIN 420 Physiological Effects of Motor Activity	3
KIN 426 Advanced Physiological Effects of Motor Activity	3
KIN 445 Organization and Administration of Wellness Programs	3
KIN 460 Internship in Physical Education	3
KIN 464 Senior Assignment	3
HED 201 Healthful Living	3
HED 334 First Aid	2
HED 360 Nutrition, Exercise and Weight Control	3
Approved Major electives	9
Electives	21
Total	124

*General Education requirements generally satisfy II, IC and IGR requirements, if not additional courses may be needed.

Physical Education Teacher Education (PETE)

PETE is a professionally based course of study which certifies students to teach in public or private schools in

kindergarten through 12th grade. The program is driven by National Association of Sport and Physical Education (NASPE) guidelines and is “partnership based” with community schools in which teacher candidates are placed early in their studies to begin working with children. The curriculum emphasizes “lifelong participation in physical activity.”

Admission Criteria

The PETE option is a field-based, competitive admission program limited to 30 students each fall. To be considered for entrance, students must: (a) complete 42 hours of course credit and have a cumulative grade point average of 2.5 or higher; and (b) pass the designated skills test (Illinois Certification Testing System Test of Basic Skills) (check with Office of Clinical Experiences, Certification and Advisement for more information - for testing schedule and registration-see www.icts.nesinc.com); and (c) earn a grade of C or better in English 101 and 102 and required General Education Skills courses; and (d) successfully complete the introductory courses Curriculum and Instruction 200 or equivalent and with a grade of B or higher.

Students with a combination of the highest GPA, scores on the Basic Skills Test, and grades in CI 200 will be given the highest consideration for admission into the major. Other factors will be considered on a case-by-case basis. *e.g.* candidate experience and/or background may influence admission. Meeting the minimal criteria does not guarantee admission into the program, as space will be limited.

There will be three rounds of admission for the Fall only program start. A first round of admission will occur at the end of January for those students who have applied early and have met the admission requirements. Second-round decisions will be made at the end of the spring semester in mid-May for matriculating SIUE students. Third-round decisions will be made at the end of the summer session in July for both SIUE and transfer students. Applications for admission are available in the department; students should contact an advisor for additional information.

Retention Standards for Physical Education Teacher Education (PETE)

To remain in good standing in the PETE program, students must maintain a cumulative grade point average of 2.5 or higher. In addition, students must achieve a grade of C or better in all major courses. In Physical Education Education (PETE), there is no probationary period. Students falling below a 2.5 GPA will be immediately dropped from the program and their

academic record file will be returned to the Office of Academic Counseling and Advising. Dropped PETE students may have to wait up to 1 year to reapply to the program, since the sequence of courses are not repeated until that time. There are no guaranteed of re-admittance into the program.

Degree Requirements

Bachelor of Science

Physical Education Teacher Education (K-12)

General Education*	42
Written Expression	6
ENG 101 and 102	
Option A—Skills	9
SPC 103 or 105; CMIS 108 or STAT 107; MATH 106 or PHIL 106	
Introductory Courses	15
at least 6 hours must be taken in each of the two areas and 3 hours in the remaining area	
Fine Arts and Humanities (Select one.)	3
Natural Sciences and Mathematics	3
Social Sciences	3
Distribution Courses	9
Fine Arts and Humanities	3
Natural Sciences and Mathematics	3
Social Sciences	3
Interdisciplinary Course	3
Kinesiology	65
Skill Techniques	14
KIN 302 Rhythmic and Tumbling Activities for Children	2
KIN 303 Lifetime/Fitness Activities in Physical Education	3
KIN 304 Individual/Dual Activities in Physical Education	3
KIN 305 Non-traditional Activities in Physical Education	3
KIN 307 Team Activities in Physical Education	3
Theoretical Base	21
KIN 315 Functional Anatomy	3
KIN 316 Biomechanics	3
KIN 320 Motor Learning and Development	3
KIN 420 Physiological Effects of Motor Activity	3
KIN 430 Measurement and Evaluation in Kinesiology	3
KIN 450 Psychosocial Aspects of Sport and Physical Activity	3
HED 201 Healthful Living	3
Pedagogical Base	15
KIN 325 Adapted Physical Education	3
KIN 330 Curriculum and Instructional Strategies for Elementary Physical Education	3
KIN 332 Instructional Strategies in Physical Education	3
KIN 334 Early Childhood Physical Education	3
KIN 435 Curriculum and Instructional Strategies for Secondary Physical Education	3
Culminating Experiences	15
KIN 455 Senior Professional Assignment	3
KIN 461 Student Teaching in Elementary Physical Education	6

KIN 462 Student Teaching in Secondary Physical Education	6
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Other Requirements	
Professional Education	11
EPFR 315 Educational Psychology.....	3
EPFR 320 Multicultural Society.....	3
CI 200 Introduction to Education.....	2
SPE 400 The Exceptional Child.....	3
Electives.....	3
Total	124

*General Education requirements generally satisfy II, IC and IGR requirements, if not additional courses may be needed.

Exit Requirements for All Majors

Courses must be repeated if minimum grade expectations are not met. If pursuing the major with teacher certification, students must complete student teaching and all other requirements pertaining to eligibility for secondary or K-12 teacher certification. All students must complete the senior assignment, which demonstrates synthesis of the major concepts of the discipline as a part of the course requirements in KIN 455 or KIN 464.

Health Education

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 choosing to major in health education will be required to select from two program options: school health education or community health education.

For those choosing School Health Education, the program leads to the Illinois Initial Secondary Teaching Certificate which applies to the teaching of Health in grades six through twelve. For those selecting Community Health Education, the program provides the knowledge and skills necessary to become certified as a Health Education Specialist. Community 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 adviser in the Department of Kinesiology and Health Education in the Sam M. Vadalabene Center.

Degree Requirements

Bachelor of Science Degree School Health Option

Entrance/Retention Requirements

To be admitted into the School Health option, students need a minimum cumulative GPA of 2.5 as well as meet all other teacher education admission requirements. To be retained, majors must maintain a GPA of 2.5 in their SIUE course work and obtain a grade of B or better in HED 201, and grades of C or better in all HED major classes. All professional education courses must be completed with a 3.0 average or higher. School health students falling below the required 2.5 GPA will be placed on probation for one semester. Students not regaining the 2.5 GPA 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 their GPA has reached 2.5.

Exit Requirements

Students are required to complete a senior assignment. Successful completion of an appropriate student teaching assignment culminates the student's professional preparation.

Degree Requirements

General Education*	43
Written Expression	6
ENG 101	3
ENG 102	3
Option A— Skills	9
SPC 103, 104 or 105	3
MATH, PHIL or FL 106	3
CS 108 or STAT 107	3
Introductory Courses	16
Fine Arts and Humanities	3
Choice of 111 approved courses	7
Natural Sciences and Mathematics	7
BIOL 111	3
CHEM 120a and 124a	4
Social Sciences	6
PSYC 111	3
SOC 111	3
Distribution Courses	9
Fine Arts and Humanities	3
Choice of approved courses.....	3
Natural Sciences and Mathematics	3
BIOL 203	3
Social Sciences	3
Choice of approved courses.....	3
Interdisciplinary Course	3
Health Education Core Major Requirements.....	30
HED 201, 205, 334, 355, 360, 380, 455, 470, NURS 234, BIOL 240A	
School Health Education Requirements	37
HED 460, 465, 471 CI 200, 315b, 352k, CI 440, EPFR 320, SPE 400	
Second Teaching Field	14
Total	124

*General Education requirements generally satisfy II, 1C and IGR requirements, if not additional courses may be needed.

Degree Requirements

Bachelor of Science Degree

Community Health Education Option

Entrance/Retention Requirements

To be admitted into the Community Health option, students need a minimum cumulative GPA of 2.5. To be retained, majors must maintain a GPA of 2.5 in their SIUE course work and obtain a grade of B or better in HED 201, and grades of C or better in all HED major classes. Community Health students falling below the required 2.5 GPA will be placed on probation for one semester. Students not retaining the 2.5 GPA 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 their GPA has reached 2.5.

Exit Requirements

Students are required to complete a senior assignment. Successful completion of an appropriate internship culminates the student's professional preparation.

Degree Requirements

General Education	43
Written Expression	6
ENG 101	3
ENG 102	3
Option A—Skills	9
SPC 103, 104 or 105	3
MATH, PHIL or FL 106	3
CS 108 or STAT 107	3
Introductory Courses	16
Fine Arts and Humanities	3
Choice of 111 approved courses	3
Natural Sciences and Mathematics	7
BIOL 111	3
CHEM 120a and 124a	4
Social Sciences	6
PSYC 111	3
SOC 111	3
Distribution Courses	9
Fine Arts and Humanities	3
Choice of approved courses	3
Natural Sciences and Mathematics	3
BIOL 203	3
Social Sciences	3
Choice of approved courses	3
Interdisciplinary Course	3
Choice of approved courses (IS 343 recommended)	3
Health Education Core Major Requirements	30

HED 201, 205, 334, 355, 360, 380, 455, 470, NURS 234, BIOL 240A	39
Community Health Education Requirements	39
HED 313, 390, 391, 405, 410, 463, 464, 499; SPC 201, 213 or 323, PSYC 206	9
Approved Major Electives	9
Three or more courses selected from the following: HED 400, 460, 462, 465, 471, 489 or from appropriate disciplines approved by the adviser.	3
Elective	124
Total	124

*General Education requirements generally satisfy II, IC and IGR requirements, if not additional courses may be needed.

Health Education Minor Requirements

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 201, 205, and 355. The remaining 12 hours are chosen from other health education courses with the consent of an adviser. Students are required to maintain a grade point average of 2.5 or higher in all course work.

Entrance/Retention Requirements

To be admitted into the Health minor program, students need a minimum cumulative GPA of 2.5. To be retained, students must maintain a GPA of 2.5 in their SIUE course work and obtain a grade of B or better in HED 201, and grades of C or better in all HED major classes. Health minor students falling below the required 2.5 GPA will be placed on probation for one semester. Students not regaining the 2.5 GPA following this period will be dropped from the minor and withdrawn from all Kinesiology and Health Education courses. Students may reapply to the HED program once their GPA has reached 2.5.

Psychology

Professors: Daus, C.S.; Ferguson, E.D.; Krohn, E.J.; Thomas, S.L. (Associate Provost)

Associate Professors: Bartels, L.E.; Mainz, E.J.; Nordstrom, C.; Pomerantz, A.M.; Sullivan, B.F. (Chair)

Assistant Professors: Dudley, M.G.; Everett, G.E.; Falconer, J.W.; Hupp, S.D.A.; Jewell, J.D.; Pawlow, L.A.; Pettibone, J.C.; Rose, P.; Segrist, D.J.; Skelly, M.

A.

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 pre-professional 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, and law.

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 services, statisticians and research analysts, and a variety of other social services. Graduate training is required to become a licensed psychologist.

Programs in Psychology

Students must be advised and have a program plan on file with the department before being accepted as a major. The psychology adviser is in Alumni Hall, room 0129a. The adviser may be used as a resource for information about the department, University and career opportunities, as well as course scheduling and program changes.

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 three semesters after acceptance as majors. PSYC 220 must be successfully completed before students 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 adviser so that any credits accepted may be noted in their files.

Aspects of the psychology curriculum which may be of interest are: (a) the Robert J. McLaughlin Psychology Honors Academy, which provides allows student members to attend special seminars and to work closely with faculty in a variety of applied and research settings, and (b) independent readings, research and field study courses, in which students may read extensively in an area of their interest, or work in a laboratory or field setting under the supervision of a faculty member.

Degree Requirements Bachelor of Arts Degree Psychology

General Education Requirements	44
(Option B) (including 8 hours of Foreign Language)	
Requirements for Major in Psychology	36
PSYC 111, 200, 206, 208, 220, 221 and 494; one of 201, 203 or 204; four electives at the 300 and 400 level (6 hours at the 400 level) are required of psychology majors. PSYC 111, 200 and 221 should be completed within three semesters after declaration as a major.	
Minor	18–21
Electives	23–26
Total	124

Except for incoming freshmen, to be admitted to the psychology program as a major, students must have at least a 2.25 grade point average overall at the University. Students who fail to maintain at least a 2.25 grade point average at the University will not be allowed to take additional psychology courses until the grade point requirement is met. Students remaining below a 2.25 grade point average for two consecutive terms will be dropped from the psychology program. A grade of C or better is required for a psychology course to count toward the major requirements. In addition, a student will be dropped from the psychology program after two unsuccessful attempts to complete a single psychology course counting toward the major requirements. Unsuccessful attempts are defined as receiving the grades of W, WF, WP, WR, UW, U, D, or F in a class.

Students who wish to major in psychology and who transfer from community colleges must complete at least 18 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.

Degree Requirements

Bachelor of Science Degree Psychology

This degree program is identical to the bachelor of arts degree program, except that no foreign language is required. General education requirements (option A) total 42 hours, thus allowing for 25 hours of electives. All students should plan their programs in consultation with their advisers.

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.

Students who have completed STAT 107 or SOC 302 should not include PSYC 220 in their programs of study for a minor in psychology.

Except for incoming freshmen, to be admitted to the psychology program as a minor, students must have a 2.25 grade point average overall at the University. Students who fail to maintain at least a 2.25 grade point average at the University will not be allowed to take additional psychology courses until the grade point requirement is met. Students remaining below at 2.25 grade point average for two consecutive terms will be dropped as a minor in the psychology program. A grade of C or better is required for a psychology course to count toward the minor requirements. In addition, a student will be dropped from the psychology program after two unsuccessful attempts to complete a single psychology course counting toward the minor requirements. Unsuccessful attempts are defined as receiving the grades of W, WF, WP, WR, UW, U, D, or F in a class.

Minors who desire to transfer credit from other colleges or universities must have their transcripts evaluated as soon as possible by a psychology adviser so that any credits earned may be noted in their files. Students transferring from community colleges must complete at least 12 semester hours of 300- and 400-level psychology courses at SIUE (or other accredited four-year institutions and SIUE combined) toward the minor. Students transferring from accredited four-year institutions must complete at least six semester hours of psychology courses at SIUE toward the minor. At least six hours of psychology courses must be at the 400 level for the minor in psychology.

Exit Requirement

The senior assignment is required of all senior psychology majors. Details may be obtained from the psychology adviser.

Special Education and Communication Disorders

Professor: Parthasarathy, T.K.; Scott, V.G. (Director of Assessment); Weishaar, M.K. (Associate Dean School of Education)

Associate Professors: Harrison, J.M. (SPPA Program Director)

Assistant Professors: Bergstrom, M.; Chleboun, S.; Claflin, M.; Denkyirah, A.; Fahsl, A.H.; Forbringer, L.; Harmon, C.; Miner, C.; Panico, J.

The Department of Special Education and Communication Disorders offers undergraduate and graduate programs in special education and speech 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 National Council for Accreditation of Teacher Education-approved preparation programs at the undergraduate level for teaching certification as a learning-behavior specialist. The program also offers study leading to the master of science in education degree in special education. Programs provide course work in special education, in preschools, elementary schools, and secondary schools. The speech pathology and audiology program offers a graduate program that is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA). The undergraduate program offers course work preparing students for graduate education in speech-language pathology. Students completing the prescribed undergraduate and graduate programs are eligible for a type 73 certificate to work in the public schools, an Illinois license in speech-language, pathology, and certification from the American Speech-Language-Hearing Association. Faculty, staff, and students in the speech 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.

Admission to a Major in Special Education

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 Office of Clinical Experiences, Certification, and Advisement, Founders Hall, room 1110. Applications should be completed at least one semester before completion of admission requirements.

Requirements for admission to the major are:

1. admission to SIUE;
2. passage of the Illinois State Test of Basic Skills; no student will be allowed into special education course work beyond Special Education (SPE) 200 until he or she passes this test.
3. a cumulative grade point average of 2.5 or higher
4. 42 semester hours of coursework;
5. grades of C or higher in each course included in the 15 hours of skills coursework;
6. a grade of B or higher in Special Education 200 or an equivalent professional level course;
7. application for admission to the special education program, a two-page autobiography, and transcript of all course work completed. These should be submitted or mailed to:

Office of Clinical Experiences, Certification, and Advisement

Undergraduate Adviser for Special Education
Box 1062
Founders Hall 1110
SIUE
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, www.siu.edu, or from the SIUE Office of Admissions.

Retention

Students must maintain a 2.5 grade point average overall and a 3.0 grade point average in professional education and special education course work. 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 achieve a 2.5 cumulative grade point average and/or a 3.0 for professional and special education course work will be dismissed from the department.

Students dismissed from the department for academic deficiencies may appeal through the special education undergraduate adviser to the department's Student and Academic Affairs Committee. Students may be directed to retake specific coursework to raise the cumulative grade average.

Degree Requirements Bachelor of Science Degree Special Education

General Education Requirements	55-57
Skills Courses	15
English 101; English 102; Speech Communication 103, 104, or 105; Mathematics 106 or Philosophy 106; Statistics 107, Computer Science 108 or Computer Management and Information Systems 108	
Fine Arts and Humanities	12
Art 111; Music 111; one 200- or 300-level literature course; and one Fine Arts and Humanities course (marked Distribution Fine Arts and Humanities)	
Natural Science and Mathematics	13-15
Biology 111, Biology 120 with Laboratory, or Chemistry 120a with Laboratory; Mathematics 111; Biology 203 or 205; Geography 210 or 211 (one science course must include a laboratory; one must be a distribution Natural Sciences and Mathematics course)	
Social Sciences	12
Geography 111; Psychology 111; Political Science 112; and History 200 or 201	
Interdisciplinary Studies	3
IS 324 or 326	
Intergroup Relations	3
SPE 200	
Professional Education Requirements	6
EPFR 305, 320;	
Special Education Requirements	63
Learning Behavior Specialist I — 405, 412, 415, 416, 417, 418, 421, 430, 450, 470, 481, 499a, SPPA 490	
Total	124-126

Once students enter the Special Education program, they are not allowed to enroll in more than 15 hours in the Fall and Spring semesters or more than 6 hours in the Summer semester.

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. Those experiences are supervised by qualified professionals. This experience, which must be completed prior to student teaching, is arranged through the Office of

Clinical Experiences, Certification, and Advisement.

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 certification requirements of Illinois and Missouri, and standards of the National Council for the Accreditation of Teacher Education 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 Office of Clinical Experiences, Certification, and Advisement.

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 course work, (c) successful completion of all professional and special education course work, and (d) passage of the Illinois Learning Behavior Specialist I content exam. There may not be any D or Incomplete grades on the student's transcript in professional or special education course requirements as of the end of the semester prior to student teaching. To receive Illinois teacher certification, the candidate must pass the Assessment of Professional Teaching exam.

Senior Assignment

The special education program places great value on the performance evaluation potential of the department's senior assignment. Beginning with the first course taken at the professional level, students begin developing a professional portfolio in special education. This is developed across the curriculum and is reviewed continually. During the student teaching semester and in the SPE 481 seminar, these portfolios are finalized, orally presented and defended, evaluated by faculty, and graded. This senior assignment enables students to demonstrate the integration of their general, professional, and special education course work.

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.

Major in the Speech Pathology and Audiology Program

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.

Career Opportunities

Students must complete graduate training to begin a career as a speech-language pathologist or audiologist. Students completing an undergraduate and graduate program in speech-language pathology are eligible for an IL license in speech-language pathology, a type 73 certificate to work in the public schools, and certification from the American Speech-Language-Hearing Association. Certified speech-language pathologists and audiologists serve more than 20 million Americans with disordered communication. 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 speech-language 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.

Entrance Requirements

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 approved for admission, students must submit a 100 word self-statement, a one page resume, transcripts and an Application for Approval form. Applications are accepted twice a year. Complete applications must be submitted by the 3rd week of spring semester or by the 4th week of summer semester for the following fall declaration. Admission to the program is a competitive process and not all applicants will be admitted.

A student handbook and application forms for admission to the major are available in the Office of Clinical Experiences, Certification and Advisement located in Founders Hall, Room 1110.

Retention Requirements

Students must maintain a 3.0 GPA to remain in the program. In addition, students must receive a B or better in SPPA 201 and grades of C or higher in all other course work required for the major including 12 hours in related areas: child development, biological science, physical science and statistics.

Students seeking more information about the major should contact the speech pathology undergraduate adviser in the Office of Clinical Experiences, Certification and Advisement (618) 650-3490 or the program director for speech pathology and audiology (618) 650-5423.

Degree Requirements

Bachelor of Arts

Speech-Language Pathology and Audiology

General Education Requirements	42-45
Requirements in Speech Pathology and Audiology	44
Basic courses: Speech Pathology and Audiology:	
201, 231, 312, 320, 321, 322	18
Speech Pathology courses: 441, 442, 444, 446,	
452, 499	17
Audiology course:	
Speech Pathology and Audiology 461, 471	6

Clinical Practicum: Speech Pathology and	
Audiology 449	3
Requirements in related areas:	15
STAT 107 or PSYC 211, Biology, Physical Science, Psychology 111, 201	
(may satisfy some general education requirements)	
Approved Electives	20-23
Area of Specialization	18

Approved electives may be applied to a minor or to an area of specialization. The area of specialization is designed to give students an opportunity to further explore the breadth and depth of Speech-Language Pathology and its related disciplines. It consists of 18 hours of unique course work from a variety of departments.

Courses must be in addition to all major requirements, and the area of specialization must be designed in consultation with an area adviser and approved by the program director. All course work taken, as part of an area of specialization requires a minimum grade of C. Some areas of specialization may include: English as a Second Language, Linguistics, Cultural Diversity, Adult Communication and Aging and Psychology.

Total.....124

Eight hours of foreign language are required for the bachelor of arts option.

Exit Requirements

In addition to meeting all program requirements, students must also satisfactorily complete a culminating project in SPPA 499: Senior Assignment. Students involved in the Undergraduate Research Academy may use their research project to satisfy exit requirements in the Senior Assignment.



School of Engineering

Hasan Sevim, Ph.D.

Dean and Professor

www.siue.edu/engineering

SIUE is 50!

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www.siue.edu/50

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, manufacturing engineering, and mechanical engineering, and a bachelor of arts degree in computer science. The civil engineering, computer science, electrical engineering, industrial engineering, and mechanical engineering programs are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology. The construction management program is accredited by the American Council for Construction Education.

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.

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.

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
- respect for the rich diversity of humankind
- effective communication capabilities
- ability to provide leadership in innovative multi-disciplinary 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

Classes began in the Engineering Building in fall 2000. The three-level structure, with a single-story testing laboratory wing, has 129,000 square feet of usable space. Faculty offices, classrooms, and laboratories are furnished with state-of-the-art equipment and teaching aids. All offices, classrooms, and laboratories are designed for the latest in computer and communication links.

Students interested in any of the majors offered by the School of Engineering should seek advisement from the School of Engineering when they initially enroll in the University. Enrollment in 300- or 400-level courses in civil engineering, industrial engineering, manufacturing engineering and mechanical engineering is limited to students who have been admitted to the upper division in that program as described below. Other students wishing to enroll in 300- or 400-level engineering courses may do so only with the permission of the department chair and having met all pre-requisites.

Students enrolled in most School of Engineering programs must have a scientific graphing calculator and must buy some technical textbooks; a personal computer is highly recommended.

Admission to School 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:

- 1 completion of all academic development courses required by the University
- 2 completion of any required courses to address high school deficiencies
- 3 be eligible to enroll in MATH 125, and
- 4 maintenance of a cumulative 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 associate dean of engineering, Engineering Building, room 3062, telephone (618) 650-2534, as early as possible. 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.

Enrollment in Upper-Division Engineering Courses

Eligibility for upper-division courses in civil engineering, industrial engineering, manufacturing engineering, and mechanical engineering requires satisfactory completion of lower-division core courses and special requirements for the specific major.

Specific requirements for enrollment in upper-division engineering courses for each major are given in the departmental sections that follow. Entry points for electrical and computer engineering are fall, spring, and summer terms. Entry points for civil engineering are fall and spring terms. Industrial engineering, manufacturing engineering, and mechanical engineering students normally enter the upper-division programs in fall terms. Application forms for admission to upper-division engineering courses are available in departmental offices as well as the associate dean's office, Engineering Building, room 3062. An application should be filed in the appropriate departmental office no later than March 15 for summer or fall semester admission, and no later than October 15 for spring semester admission. Late applications will be considered on a space-available basis.

The admissions committee of the appropriate department considers applications. Students whose applications are rejected may not register for upper-division engineering courses. If the rejection is based on enrollment limitations, students may reapply for a different engineering program or for later entry in the same program. If the rejection is based on failure to complete lower-division courses, students may apply for entry when the requirements are completed.

Enrollment Limits

The number of students accepted into each engineering program upper-division entry point is restricted due to class-size limitations. Priority will be assigned as follows using grade point ranking for the lower-division courses required for each program's upper-division admission:

- 1 current SIUE students who have 12 or fewer lower-division transfer hours, Illinois transfer students, and

students from regional community colleges with approved School of Engineering articulation programs, ranked by program lower-division grade point average (2.0 and above) and

- 2 other transfer students ranked by program lower-division grade point average (2.25 and above).

Transfer Students

Transfer students wishing to enter one of the programs offered by the School of Engineering should contact the associate dean of engineering for a 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 have been completed within the last 10 years will be considered 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 also must 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 the associate dean as part of the transfer credit evaluation.

Minority and Women Engineering Services

The School of Engineering provides support services for minority and women students including orientation for new students, advisement, counseling and assistance in networking, internship placement, and career planning. For more information, contact the assistant to the dean, Engineering Building, room 3060, (618) 650-2541.

Civil Engineering

Professors: Cross, W.B.; Lin, C.; Panahshahi, N.; Rossow, M.P.

Associate Professors: Morgan, S.M. (Chair)

Assistant Professors: Zhou, J.

Instructor: Pierce, R.G. Jr.

Civil engineering is concerned with creating and maintaining the infrastructure of modern industrialized society. Civil engineers conceive, design, and construct physical works such as bridges, buildings, stadiums, warehouses, power plants, factories, canals, pipelines, highways, airports, rapid transit lines, railroads, harbor facilities, dams and water supply, waste-water treatment, storm water run-off, and solid-waste management systems including hazardous wastes.

The Department of Civil Engineering offers a curriculum that provides students with a rigorous background in mathematics, physical science, and civil engineering. Elective courses are available in the environmental, structural, geotechnical, transportation, and materials areas. Baccalaureate graduates are prepared to hold an entry-level position in industry or government, or to pursue graduate study. During the senior year, students are encouraged to complete the Fundamentals of Engineering Examination, the first step in achieving licensure as a professional engineer. Students interested in civil engineering will find facilities available for conducting basic soil mechanics procedures such as soil classification, permeability, compaction, direct shear, consolidation, and triaxial tests. In addition, equipment for demonstrating hydraulic phenomena, conducting tensile and torsional testing, analyzing water and wastewater, and testing concrete and asphalt mix designs is provided.

The civil engineering program is accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012, telephone: (410) 347-7700.

The civil 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 educational objectives are dynamic and under continual review by the program constituencies. The

objectives are given on the department Web site: /
www.ce.siu.edu/CIVIL/.

Career Opportunities

Civil engineers are employed in technical and managerial positions by structural design, transportation, environmental design, construction, consulting, and manufacturing companies. Civil engineers also work as members of teams of engineers and scientists in the aerospace, petroleum, biomedical, automotive, telecommunication, and other industries. In addition, many civil engineers are employed by city, state and federal government agencies.

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; IME/PHIL 106, MATH 150, 152, 250, 305; ME 262; PHYS 211a, 211b, 212a, 212b; and SPC 103, 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 above in CE 240, CE 242, and ME 262.

Academic Status

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.

Degree Requirements

Bachelor of Science

Civil Engineering

Natural Science and Mathematics Courses	32
CHEM 131(121a), 135(125a upon approval)	5
MATH 150, 152, 250, 305	17
PHYS 211a, 211b, 212a, 212b	10
Engineering Courses	68
CE 204, 206, 207L, 240, 242, 315, 330, 330L, 342, 343, 354, 354L, 376, 380, 415L, 416 or 455, 460, 493	44
3 CE Electives and 1 CE-Related Elective*	12
ECE 210	3
IME 345	3
ME 262, 310	6
Fine Arts and Humanities Courses	9
Introductory Fine Arts/Humanities Courses	6
PHIL 323	3
Social Science Courses	6
ECON 111	3
Dist. Social Science	3
Skills Courses	15
ENG 101, 102	6
IME/PHIL 106	3
SPC 103, 104, or 105	3
STAT 380	3
Interdisciplinary Course	3
Total	133

* Civil engineering and CE-related electives must be selected with the approval of a faculty adviser. A curriculum guide with a list of civil engineering electives is available in the department office.

For a suggested program of study, visit the department Web site: www.ce.siu.edu/CIVIL/undergrad/.

Exit 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.

Computer Science

Professors: Ehlmann, B.K.; White, W.W.; Wu, T.

Associate Professors: Weinberg, J.B. (Chair); Fujinoki, H.; Yu, X.W.

Assistant Professors: Blythe, S.A.; Bouvier, D.J.; Dooly, D.R.;

The design and development of software systems and applications is of vital importance in today's technological society. From the development of understandable graphical user interfaces to the management of vast data warehouses, computer scientists provide the fundamental means by which every person can access information in a straightforward manner. From the implementation of sophisticated operating systems like Linux and Windows to the design of complex data communications networks, computer scientists enable rapid calculations and transmission of data. From the design of sophisticated computer animations and special effects to the programming of intelligent robots, computer scientists explore the application of developing technologies to new and exciting problems.

Career Opportunities

Contrary to the stereotype of a "computer nerd", 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 development to keep pace with both hardware advances and the needs of businesses 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.

Degrees and Curricula

The Department of Computer Science offers two undergraduate degree programs to facilitate entry into this vibrant discipline. The Bachelor of Science curriculum, accredited by the Accreditation Board for Engineering and Technology, includes a solid core of programming, computer architecture, software engineering, algorithms, 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 core curriculum with a minor or a second major in another discipline as a replacement for some of the technical courses required in the Bachelor of Science program.

Admission

Students who are considering computer science as a major should call or visit the Department of Computer Science (Engineering Building, room 2054, telephone 618-650-2386) as early as possible. They will be referred to a faculty adviser who will provide more information about the curricula and the department and help them plan an academic program. Early advisement will enable students to complete their programs with minimal conflicts and within the shortest possible time.

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

- 1 complete all Academic Development courses required by the University
- 2 complete any courses required to address high school deficiencies
- 3 complete MATH 120 - College Algebra (or high school equivalents) with a grade of C or better, and
- 4 attain a cumulative grade point average of at least 2.0 (on a 4.0 scale).

Academic Status

Student must meet the following standards. Students who fail to do so will be placed on probation in the major.

- 1 Maintain a cumulative grade point average of 2.0.

- 2 Maintain a term grade point average above 1.0 in any term.
- 3 Maintain a cumulative grade point average of at least 2.0 in all mathematics and science courses.
- 4 Maintain a cumulative grade point average of at least a 2.0 in courses taught in the School of Engineering.
- 5 Maintain a cumulative grade point average of at least 2.0 in major courses numbered above 299.
- 6 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 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.

Most computer science courses have other courses as prerequisites. Before enrolling in a course in computer science, students must complete the prerequisite(s) with a grade of C or better. A grade of D in a prerequisite course implies inadequate preparation to continue to the next course.

To graduate, students must complete the specific program requirements and meet the following conditions:

- 1 complete at least 12 hours of computer science credits at SIUE in courses numbered above 299 and with a cumulative GPA of 2.0 or above,
- 2 have a GPA of 2.0 or above in all computer science courses numbered above 299, and
- 3 complete at least 6 hours of credit in major courses numbered above 299 at SIUE within two years preceding graduation.

Degree Requirements Bachelor of Science Computer Science

Natural Science and Mathematics Courses	30-34
MATH 150, 152, 224 and one course in	
MATH from 250, 305, 321, 423	16-17
Laboratory Science Sequence:	
Either PHYS 211a, 211b, 212a, 212b or	

CHEM 121a, 121b, 125a, 125b (or 131, 135 for 121a and 125a)	10
Natural Sciences Electives — One additional laboratory course selected from BIOL 120; CHEM 121a and 125a; CHEM 131 and 135; PHYS 211a and 212a; or PHYS 302 and 308	4-7
Computing Core	38
CS 111, 140, 150, 240, 275, 312, 321, 325, 330, 340, 414, ECE 282	
Computing Electives	15
Five courses selected from: CS 423, 434, 438, 447, 454, 456, 482, 490, 495, ECE 481, 482, 483, MATH 465	
Senior Project	6
CS 425, 499	
General Education: Introductory Courses	9
One Fine Arts/Humanities Course and two Social Science Courses or vice versa	9
General Education: Distribution Courses	6
Distribution Fine Arts/Humanities	3
Distribution Social Science	3
Skills Courses	15
ENG 101, 102	6
FL 106, IME 106, MATH 106, or PHIL 106	3
SPC 103, 104, or 105	3
STAT 380	3
Interdisciplinary Studies Course	3
Free Electives	0-2
Total	124-126

To view a sample program for a Bachelor of Science degree in computer science, see the School of Engineering Web site: www.siu.edu/engineering.

Degree Requirements

Bachelor of Arts

Computer Science

Natural Science and Mathematics Courses	10-11
MATH 125, 130 or 150, 224	
Computing Core	34
CS 111, 140, 150, 240, 275, 312, 321, 325, 330, 340, 414	
Computing Electives	9
Three courses selected from: CS 423, 434, 438, 447, 454, 456, 482, 490, 495, MATH 465	
Senior Project	6
CS 425, 499	
Introductory GER Courses	9
One Fine Arts/Humanities Course and Two Social Science Courses or vice versa	9
Distribution GER Courses	6
Distribution Fine Arts/Humanities	3
Distribution Social Science	3
Skills Courses	17
ENG 101, 102	6
Foreign Languages	8
STAT 244	3
Interdisciplinary Studies Course	3
Minor	18-22
Free Electives	7-12
Total	124

To view a sample program for a Bachelor of Arts degree in computer science, visit the School of Engineering Web site at www.siu.edu/engineering.

Minor Requirements

The minor in computer science requires 22 semester hours consisting of CS 111, CS 140, CS 150, CS 240, CS 312, and two additional CS courses which have at least one of the above five required courses as a prerequisite. The required courses must be completed with a GPA of 2.0 or above. At least six semester hours must be earned at SIUE.

Construction

Associate Professor: Slattery, D.K. (Chair)

Assistant Professor: Gordon, C.B.; Slattery, K.T.

Instructor: Lopez del Puerto, C.

The construction management program blends business and engineering course work to provide graduates with the knowledge and skills necessary to coordinate the multifaceted aspects of the construction industry. Course work presents basic scientific principles augmented by business and engineering practices and procedures.

Career Opportunities

The construction industry is one of the largest components of the U.S. economy. The construction work force includes skilled and unskilled labor, engineers, accountants, financial analysts, business managers, and construction professionals. The scope of construction ranges from most modest projects costing a few hundred dollars to projects whose total cost may be billions of dollars. The industry's continuing changes in technology produce a need for construction professionals trained in the managerial and scientific techniques of construction.

Academic Status

Student must meet the following standards. Students who fail to do so will be placed on probation in the major.

- 1 Maintain a cumulative grade point average of 2.0.
- 2 Maintain a term grade point average above 1.0 in any term.
- 3 Maintain a cumulative grade point average of at least 2.0 in all mathematics and science courses.
- 4 Maintain a cumulative grade point average of at least

- a 2.0 in courses taught in the School of Engineering.
- 5 Maintain a cumulative grade point average of at least 2.0 in courses taught in the School of Business.
- 6 Maintain a cumulative grade point average of at least 2.0 in major courses numbered above 299.
- 7 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.

Degree Requirements

Bachelor of Science Construction Management

Natural Science and Mathematics Courses	19
Chemistry 120a, 124a	4
Mathematics 150, 152	10
Physics 211a, 212a	5
Construction Courses	54
CNST 120, 201, 202, 241, 264, 301, 321, 332, 341, 351, 353, 403, 411, 451, 452, 470	54
Technical Electives	9
Business Courses*	15
ACCT 200, 210	6
ECON 331	3
FIN 320	3
IS 401	3
Fine Arts and Humanities Courses	9
Introductory Fine Arts/Humanities Courses	6
Distribution Fine Arts/Humanities Course	3
Social Science Courses	6
*ECON 111, 112	6
Skills Courses	16
ENG 101, 102	6
PHIL 106	3
SPC 103, 104 or 105	3
STAT 244	4
Total	128

* These courses fulfill the requirements for a minor in business.

To view a sample program for construction management, visit the School of Engineering Web site at www.siu.edu/ENGINEER/CONSTRUCT/

Exit Requirements

Construction students must meet all University requirements for graduation and the following construction management program requirements:

- 1 Earn a cumulative grade point average above 2.0 in all construction courses and
- 2 Earn a cumulative grade point average above 2.0 in all business courses to qualify for a minor in business administration.
- 3 Complete the construction management senior assignment.

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 by the chair of Construction Department. A cumulative grade point average of 2.0 or higher is required for construction management courses.

Electrical and Computer Engineering

Professors: Alkin, O. (Chair); Chen, J.; Godhwani, A.; Smith, S.R.; Umbaugh, S.E.; Youn, L.T.

Associate Professors: Engel, G.L.; Noble, B.L.

Assistant Professors: LeAnder, R.W.; Lozowski, A.

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 health care 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 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: www.siu.edu/ENGINEER.

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.

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.

Enrollment in Electrical and Computer Engineering Courses

- 1 Enrollment in any ECE course is limited to students with a declared major in one of the engineering disciplines. Exceptions to this rule require the approval of the department chair.
- 2 Students must meet the prerequisites for ECE courses in which they enroll. Exceptions require the approval of the course instructor and the department chair.
- 3 A prerequisite can be fulfilled only by a grade of C or better. A grade of D is sufficient to pass a course, but is not sufficient to qualify the student to enroll in a more advanced course that lists the former as a prerequisite.

Academic Status

Student must meet the following standards. Students who fail to do so will be placed on probation in the major.

- 1 Maintain a cumulative grade point average of 2.0.
- 2 Maintain a term grade point average above 1.0 in any term.
- 3 Maintain a cumulative grade point average of at least 2.0 in all mathematics and science courses.
- 4 Students must maintain a cumulative grade point average of at least a 2.0 in courses taught in the School of Engineering.
- 5 Students must maintain a cumulative grade point average of at least 2.0 in major courses numbered above 299.
- 6 Students must 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.

Degree Requirements Bachelor of Science Electrical Engineering

Natural Science and Mathematics Courses	37
CHEM 121a, 125a	5
MATH 150, 152, 250, 305, 355	22
PHYS 211a, b, 212a, b	10
Engineering Courses	62
ECE 210, 211, 282, 326, 327, 340, 341, 351, 352, 365, 375, 404, 405	43
ECE Electives	12
IME 345	3
CE/ME 244	4
Fine Arts and Humanities Courses	9
Intro Fine Arts / Humanities Courses	6
PHIL 323	3
Social Science Courses	6
ECON 111	3
Distribution Social Science Course	3
Interdisciplinary Course	3
Skills Courses	15
CS 145 or CS 140)	3
ENG 101, 102	6
SPC 103, 104, or 105	3
IME 106	3
Total	132

Degree Requirements Bachelor of Science Computer Engineering

Natural Science and Mathematics Courses	37
CHEM 121a, 125a	5
MATH 150, 152, 250, 305, 355	22
PHYS 211a, b, 212a, b	10
Engineering Courses	50
ECE 210, 211, 282, 326, 351, 352, 375, 381, 404, 405, 483	35
ECE/CS Elective	12
IME 345	3
Computer Science Courses	15
CS 150, 240, 312, 414	
Fine Arts and Humanities Courses	9
Intro Fine Arts / Humanities Courses	6
PHIL 323	3
Social Science Courses	6
ECON 111	3
Dist. Social Science Course	3
Interdisciplinary Course	3
Skills Courses	16
CS 140	4
ENG 101, 102	6
SPC 103, 104, or 105	3
IME 106	3
Total	133

To view a sample program for electrical engineering, visit the School of Engineering Web site at www.siue.edu/ENGINEER.

To view a sample program for computer engineering, visit the School of Engineering Web site at www.siue.edu/ENGINEER.

Exit Requirements for Electrical Engineering and Computer Engineering Programs

Degree requirements include the following:

- 1 satisfactory completion of all University requirements for graduation
- 2 a cumulative grade point average of 2.0 or higher for courses taught in the School of Engineering
- 3 a grade point average of 2.0 or higher in electrical engineering and computer science courses numbered above 299
- 4 completion of at least 30 hours of the required electrical engineering and computer science courses at SIUE and
- 5 completion of senior assignment contained in ECE 404 and 405.

Minor Requirements

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.

A minor in computer engineering requires 23 semester hours. The courses 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.

Mechanical and Industrial Engineering

Professors: Eneyo, E.S.; Gu, K. (Chair); Karacal, S.C. (Program Director); Lee, H.F.; Molki, M.; Saniei, N.; Van Roekel, J.H. (Associate Dean); Yan, X.

Associate Professors: Hubbard, K.M.; Luo, A.

Assistant Professor: Celik, S.; Krauss, R.; Tonegele, T.N.

Industrial and Manufacturing Engineering

Industrial engineering and manufacturing engineering are professional disciplines having extraordinary breadth of application. They are principally concerned with the analysis and design of systems and procedures for

organizing the basic resources of production (people, materials, and equipment) to achieve specific objectives. Industrial and manufacturing engineers deal with the design, improvement, and installation of integrated systems, drawing upon specialized skills in the mathematical, physical, managerial, and behavioral sciences, together with the principles and methods of engineering analysis for specifying, predicting, and evaluating the results to be obtained from such systems. What sets industrial and manufacturing engineering apart from other engineering disciplines is their broader scope. For example, industrial and manufacturing engineers use knowledge in a wider variety of applications, deal with people as well as things, relate to the total picture of productivity improvement, and apply problem-solving techniques in almost every kind of organization imaginable. Consequently, industrial and manufacturing engineers bridge the gap between management and technical operations, dealing with and motivating people as well as determining what tools should be used and how they should be used.

Throughout the program, there is an integrated series or sequence in the major field that includes not only basic and fundamental courses, but also specialized courses in the fields of facilities design, production planning and control, operations research, quality control, computer-integrated manufacturing, process and product design and tool engineering. These specialized courses reflect the impact of recent developments in operations research, information processing, and automation.

The industrial and manufacturing engineering program has a computer-integrated manufacturing laboratory equipped with a wide variety of industrial quality automation equipment including several robots, programmable logic controllers, an automated storage and retrieval system, a loop conveyor, several flexible manufacturing cells, a vision system, a bar code reading system, and a comprehensive computer-integrated manufacturing software package. Students interested in human factors will find facilities for evaluating ergonomic systems and work methods, and for measuring human performance.

The industrial and manufacturing 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 of Engineering Website: www.siu.edu/ENGINEER.

Career Opportunities

Industrial and manufacturing engineers are specifically prepared to function as problem solvers, innovators, coordinators, and change agents. Industrial and manufacturing engineers practice in all phases of manufacturing industries, service industries, and government agencies.

For example, in a manufacturing organization, industrial and manufacturing engineers may be concerned with the design of a single work place involving one or more persons and one or more machines. In designing such work places, industrial and manufacturing engineers must consider not only the capabilities of machines, but also the physiological and psychological capabilities and limitations of humans. Industrial and manufacturing engineers also are involved in the design of computer-integrated manufacturing processes with robots, the design of entire plants, and the design of systems to control the production, inventory, and quality of large numbers of complex products. At higher corporate levels, there are concerns with plant and warehouse locations, the development of sales forecasts, and the evaluation of proposals to produce new products and the building of new or improved production facilities.

In service industries and government agencies, the same skills used to design manufacturing systems are found to be useful by industrial engineers in designing better systems to care for patients in hospitals, assisting the judicial system, providing fast and more accurate mail distribution, improving airline reservation methods, and controlling large space projects. The complexity of modern industrial and service organizations and the emphasis on increased effectiveness, efficiency, and productivity have led to a growing need for industrial engineering analysis and design and an increasing demand for industrial and manufacturing engineering graduates. This increased demand recognizes the versatility of modern industrial and manufacturing engineers in being responsive to the challenges of a rapidly changing society. Although manufacturing engineering is a comparatively new professional area, having developed over the last five decades, it already is one of the nation's largest and fastest-growing engineering professions. Demand for new graduates in industrial and manufacturing engineering programs far exceeds the current output of industrial and manufacturing engineering programs.

Enrollment in Upper-Division Industrial and Manufacturing Engineering Courses

The requirements for enrollment in upper-division industrial and manufacturing engineering courses are:

- 1 satisfactory completion of all University and School of Engineering admission requirements;
- 2 an approved application for enrollment in upper-division Engineering courses;
- 3 satisfactory completion of the lower-division (core) courses CE 204, 240, 242; CHEM 125a, 131; CS 145 (recommended) or CS 140; ECE 210; ENG 101, 102; MATH 150, 152, 250, 305 or 321 (for IEs only); ME 262; PHYS 211a, 211b, 212a, 212b; and SPC 103 or 104 or 105; 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
- 4 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)

Academic Status

Students must meet the following standards.

Students who fail to do so will be placed on probation in the major.

- 1 Maintain a cumulative grade point average of 2.0.
- 2 Maintain a term grade point average above 1.0 in any term.
- 3 Maintain a cumulative grade point average of at least 2.0 in all mathematics and science courses.
- 4 Maintain a cumulative grade point average of at least a 2.0 in courses taught in the School of Engineering.
- 5 Maintain a cumulative grade point average of at least 2.0 in major courses numbered above 299.
- 6 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.

Degree Requirements Bachelor of Science Industrial Engineering

Natural Science and Mathematics Courses	32
CHEM 125a, 131	5
MATH 150, 152, 250, 305 or 321	17
PHYS 211a, 211b, 212a, 212b	10
Engineering Courses	66
CE 204, 240, 242	9
ECE 210	3
IME 335, 345, 365, 370, 375, 415, 451, 465, 468, 470, 476, 483, 484, 490	42
IME Electives*	9
ME 262	3
Fine Arts and Humanities Courses	9
Introductory Fine Arts/Humanities Courses	6
PHIL 323	3
Social Science Courses	6
ECON 111	3
PSYC 320	3
Skills Courses	15
CS 145 (recommended) or CS 140	3
ENG 101, 102	6
IME 106 or PHIL 106	3
SPC 103, or 104, or 105	3
Interdisciplinary Course	3
Total	131

* Industrial engineering electives must be selected with the approval of a faculty adviser and must contain at least two hours of design content. A curriculum guide with a list of industrial engineering electives and the design hours for each is available in the department office.

Degree Requirement Bachelor of Science Manufacturing Engineering

Natural Science and Mathematics Courses	32
CHEM 125a, 131	5
MATH 150, 152, 250, 305	17
PHYS 211a, 211b, 212a, 212b	10
Engineering Courses	69
CE 204, 240, 242	9
ECE 210	3
IME 345, 365, 370, 375, 465, 470, 475, 476, 480, 482, 483, 490	36
IME Electives*	9
ME 262, 310, 315, 370	12
Fine Arts and Humanities Courses	9
Introductory Fine Arts/Humanities Courses	6
PHIL 323	3
Social Science Courses	6
ECON 111	3

Distributed Social Science	3
Skills Courses	15
CS 145 (recommended) or CS 140	3
ENG 101, 102	6
IME 106 or PHIL 106	3
SPC 103, or 104, or 105	3
Interdisciplinary Course	3
Total	134

* Manufacturing engineering electives must be selected with the approval of a faculty adviser and must contain at least two hours of design content. A curriculum guide with a list of industrial and manufacturing engineering electives and the design hours for each is available in the department office.

To view sample programs for industrial and manufacturing engineering, visit the School of Engineering Web site at www.siu.edu/ENGINEER.

Exit Requirements

Degree requirements include the following:

- 1 a cumulative grade point average of 2.0 or higher for engineering courses
- 2 a cumulative grade point average of 2.0 or higher for Industrial and Manufacturing Engineering courses numbered above 299
- 3 completion of all departmental and University requirements
- 4 completion of the Senior Assignment with IME 490, Integrated Engineering Design, and
- 5 a grade of C or better for IME 345, 365, 468 and 483 for industrial engineering majors, or
- 6 a grade of C or better for IME 345, 365, 370 and 482 for manufacturing engineering majors.
- 7 taking the FE (fundamental engineering) exam before graduation date.

Minor Requirements for Industrial Engineering

Twenty-one semester hours are required for the industrial engineering minor, including IME 345, 365, 370, 415 and 451. The remaining two courses are electives to be selected from the following four courses: IME 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.

Minor Requirements for Manufacturing Engineering

Twenty-one hours are required, including IME 365, 370, 375, ME 310, 370. The remaining two courses are electives to be selected from the following four courses: IME 465, 475, 480, and 482. Other substitute electives are subject to approval by the chair/director of industrial and manufacturing engineering. A cumulative grade point average of 2.0 or higher is required for manufacturing engineering courses.

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, www.siu.edu/engineering.

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 the applied sciences. Alternatively, they may choose to pursue a career in a related area such as business, law, or medicine.

Enrollment in Upper-Division Mechanical Engineering Courses

The requirements for enrollment in upper-division mechanical engineering courses are:

- 1 satisfactory completion of all University and School of Engineering admission requirements;
- 2 an approved application for enrollment in upper-division Engineering courses,
- 3 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 211a, 211b, 212a, 212b; and SPC 103; 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;
- 4 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
- 5 a grade of C or better in 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.

Academic Status

Students must meet the following standards. Students who fail to do so will be placed on probation in the major.

- 1 Maintain a cumulative grade point average of 2.0.
- 2 Maintain a term grade point average above 1.0 in any term.
- 3 Maintain a cumulative grade point average of at least 2.0 in all mathematics and science courses.
- 4 Maintain cumulative grade point average of at least a 2.0 in courses taught in the School of Engineering.
- 5 Maintain a cumulative grade point average of at least 2.0 in major courses numbered above 299.
- 6 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 re-apply for admission to the major. Students dropped from the major may direct a written appeal to the department's academic standards committee.

Degree Requirements

Bachelor of Science

Mechanical Engineering

Natural Science and Mathematics Courses	35
CHEM 131(or 121a), 135 (or 125a)	5
MATH 150, 152, 250, 305	17
PHYS 211a, 211b, 212a, 212b	10
STAT 380	3
Engineering Courses	61
ME 262, 310, 312, 315, 350, 354, 356, 356L, 370, 380, 380L, 410, 410L, 482, 484	35
ME Electives	12
CE 204, 240, 242	9
ECE 210	3
IME 345	4
Fine Arts and Humanities Courses	9
Introductory Fine Arts/Humanities Courses	6
PHIL 323	3
Skills Courses	15
CS 145 (or 140)	3
ENG 101, 102	6
IME 106 (or PHIL 106 or Math 106)	3
SPC 103 (or 104, or 105)	3
Social Science Courses	6
ECON 111	3
Dist. Social Science	3
Interdisciplinary Course	3
Total	130

* All ME Students are required to take Fundamentals of Engineering Exam before graduation. The students may take the exam either in the Fall or Spring of Year IV.

To view a sample program for mechanical engineering, visit the School of Engineering Web site at www.siuc.edu/ENGINEER/ME.

Exit Requirements

Degree requirements include the following:

- 1 a cumulative grade point average of 2.0 or higher in engineering courses;
- 2 a cumulative grade point average of 2.0 or higher is required for mechanical engineering courses numbered above 299;
- 3 completion of all departmental and University

- requirements; and
- 4 completion of a senior assignment as part of ME 482 and 484 Mechanical Engineering Design I and II; and
 - 5 take Fundamentals of Engineering Exam.

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.



S c h o o l o f N u r s i n g

Marcia C. Maurer, Ph.D., R.N.

Dean and Professor

www.siue.edu/nursing

SIUE is 50!

Since 1957, SIUE has grown from 1,776 students to nearly 13,500. Join us as we reflect upon and celebrate the accomplishments of students, faculty, alumni, and community members who have helped make SIUE the premier Metropolitan University we are today. Visit our Web site for 50th Anniversary event details:

www.siue.edu/50

School of Nursing

Professors: Boyd, M.A.; Clement, J.M.; Fazzino, P.; Flick, L.; Maurer, M.; Perry, A.

Associate Professors: Baier, M.A.; Bernaix, L.W.; Cruz, V.L.; Kelly, K.; Ketchum, K.M.; Mabunda, G.; Mulcahy, M.; Riley, M.; Schmidt, C.A.; Stanley, M.J.; Williams, L.D.; Yancey, V.

Assistant Professors: Arras, R.E.; Comrie, R.; Gaehle, K.; Martin, B.; Newland, P.; Sander, R.; White, K.; Yakimo, R.

Instructors: Astorino, B.; Auffarth, J.; Barthelme, S.; Durbin, C.R.; Emling, C.; Griffin, A.; Griffin, V.; Gum, E.G.; Hancock, J.; Harrison, R.; Headley, R.; Jackson, C.; Keth, S.; Koetting, C.; Luebbert, R.; Lyerla, F.; Pietroburgo, S.; Popkess, A.; Siatkowski, A.; Talley, L.; Tomasko, C.

Clinical Assistant Professor: Griggs, R.

Clinical Instructor: Behrhorst, V.

Lecturers: Ampadu, J.; Auld, C.; Beatty, M.; Butts, L.; Canfield, R.; Champion, C.; Darr, P.; Eason, V.; Evans, L.; Gallagher, S.; Gleason, P.; Hansen, K.; Harris, M.M.; Henske, K.; Hovey, S.; Inman, C.; Kelly, P.; Laws, M.; Martin, K.; Mattingly, C.; Skelton, S.; Smith, D.; Stellyes, L.; Wood, T.

Overview of the School

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 academic options for non-degree seeking nurses and continuing education programs.

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 re-constructing 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 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.

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.

Characteristics of the Graduates

Upon completion of the baccalaureate nursing program, the student:

1. appraises all aspects of health care situations and consequences of chosen actions.
2. chooses effective communication approaches using strategies and theories integral to the practice of nursing.
3. designs effective responses to identified health care concerns.
4. initiates investigation of professional issues.
5. integrates knowledge of human diversity and the effects of health and social policies on populations.
6. integrates personal and professional ethical code into professional practice.
7. incorporates understanding of moral judgements into determining ethical issues.

Nursing is 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. * Nursing is a learned profession built on a core of knowledge reflective of its dual components of science and art. As life-long 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 health care professionals in applying evidence-based knowledge combined with caring and compassion to provide quality care.

The School of Nursing maintains a state-of-the-art 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. The SIUE Community Nursing Services' nurse-managed center in East St. Louis, Illinois, provides comprehensive nursing services to promote, maintain, and restore the physical, emotional, and social well-being 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 Community Nursing Services can be obtained by calling (618) 482-6959.

Faculty are nationally recognized experts in the 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.

All nursing majors are required to file reports of a physical examination, immunizations, criminal background checks and a drug screen, as specified by the School of Nursing. These reports are to be performed after initial acceptance to their program. These specifications are required by all clinical agencies. Yearly tuberculin skin testing, flu vaccine and CPR certification are required. The Baccalaureate Student Handbook, issued to students accepted into the School of Nursing, contains full details.

*ANA (2003). Social Policy Statement

BASIC OPTION - PROGRAM FOR LICENSURE

The Basic Option-Program for Licensure is designed for first degree-seeking students with no previous college experience. It is offered on-campus in primarily a face-to-face format.

Admission Requirements

Application Procedure — Basic Program — Preparation for Licensure

Students seeking admission to the School of Nursing must first be admitted to the University through the Office of Admissions. Students should then make an appointment with an adviser in Academic Counseling and Advising (618-650-3701). Admission to the University and submission of an application for a major in nursing does not guarantee admission to the School of Nursing. A prospective student may declare him/herself a pre-clinical nursing major during first semester as long as he/

she is not enrolled in Academic Development classes and is in good standing. Students are admitted to the School of Nursing at the beginning of their sophomore year for fall enrollment in nursing classes.

Applicants must apply to the School of Nursing according to the deadlines below. Applications are available from the School of Nursing website (www.siu.edu/nursing) or from the School of Nursing in Alumni Hall, room 2107, or by calling 618-650-3956.

The deadline date for application is March 1 for fall admission.

Applications are reviewed by the School of Nursing, and applicants are notified of their status in time to register, if accepted.

An application to the School of Nursing will be considered ready to be reviewed for admission when all the following criteria are met:

- 1 Admission to the University and submission of an application to the School of Nursing.
- 2 Successful completion of prerequisite courses with a grade of C or better. Prerequisite courses may not be repeated more than once. 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), a cumulative GPA of 2.5 for admission consideration.
- 3 Completion of the Health Education Systems Incorporated (HESI) A2 examination with a math, reading comprehension, grammar and vocabulary score of 75% or higher. (A reading or math score below 75% will require an education action plan that is developed with the director of admissions, progression and retention in the School of Nursing before admission).
- 4 Completed application on file in the School of Nursing by the deadline. An application is considered complete when the application, official transcripts of all college course work, HESI A2 test score and a record of current course enrollment are in the applicant's file. Applicants are responsible for ensuring that their materials are received (Box 1066, School of Nursing) by March 1. All materials must be in the applicant's file before the deadline in order for the applicant to be considered for admission. Applicant files completed after those dates will be

reviewed on a space available basis.

- The application process is competitive. The School of Nursing reserves the right to limit the size of its entering class, therefore merely meeting or exceeding the stated minimum GPAs and HESI test scores does not guarantee admission into the nursing program.

Transfer Students (Basic Option & RN/BS students)

If the applicant has attended another college or university, official transcripts must be sent to the Office of Admissions, SIUE, Box 1047. The prerequisite and cumulative grade point averages will be calculated in the School of Nursing. Applicants are responsible for ensuring their record is current. Transfer students follow the same procedures for admission and must meet the same criteria.

Students seeking admission whose prerequisite Nursing courses were taken at other colleges or universities must submit the following to the School of Nursing:

1. application (must comply with deadline.)
2. official transcript(s)
3. Course descriptions obtained from official sources or syllabi may be requested. 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. Typically, nursing courses do not transfer from school to school.

4. Transfer students are also required to pass any standardized exams scheduled before their entering semester.

Pre-requisite Requirements

Courses to be completed before enrollment in nursing courses:

Skills Requirements:

English 101 and 102
Interpersonal Communication (SPC 103)

Introductory Social Science Requirements:

Two of: Anthropology 111, Economics 111, Geography 111, History 111, Political Science 111, Psychology 111 (required) or Sociology 111.

Biophysical Science Requirements:

Bacteriology (BIOL 250); Anatomy and Physiology 1 (BIOL 240a) Inorganic, Organic Chemistry and Biochemistry (CHEM 120n, 124n or CHEM 120a,b; 124a, b) are required.

A grade of C or better must be earned in all prerequisite courses. A prerequisite course may not be repeated more than once.

Additional general education requirements, which may be completed after admission by students without a baccalaureate degree, include:

Introduction to fine arts and humanities course: PHIL 320 – Ethics, or PHIL 321 – Ethics in Medicine; STAT 107 (prior to senior status); PHIL 106 (at sophomore level), one advanced social science, an interdisciplinary course, and an international or cultural issues course.

Basic Option-Program for Licensure Curriculum

Freshman Level — Fall (Apply to Nursing Program)

Course	Title	Credits
ENG 101	English Composition I	3
SPC 103	Speech Communication	3
CHEM 120n	General, Organic, and Biological Chemistry	4
CHEM 124n	General Organic, and Biological Chemistry Lab	1
BIOL 111*	Contemporary Biology	3
	Intro Fine Arts or Humanities course	3
Total credits		17

* Not a School of Nursing requirement, a pre-requisite to BIOL240a

Freshman Level — Spring (Take HESI A2 Test)

Course	Title	Credits
ENG 102	English Composition II	3
BIOL 250	Bacteriology	3
BIOL 240a	Anatomy & Physiology I	4
CHEM 120b*	General, Organic and Biological Chemistry	3
CHEM 124b*	General, Organic and Biological Chemistry Lab	1
PSYC 111	Foundations of Psychology	3
	Introduction to Social Science	3
Total credits		16 - 20

* Not required if CHEM 120n and 124n are taken.

Sophomore Level — Fall (Enter School of Nursing)

Course	Title	Credits
NURS 230	Introduction to Terminology, Inquiry & Writing In Nursing	2
NURS 233	Professionalism in Nursing	3
NURS 234	Human Development-Life Span	3
BIOL 240b	Anatomy & Physiology II	4
PHIL 106	Critical Thinking (Logic)	3
STAT 107	Concepts of Statistics	3
Total credits		18

Sophomore Level — Spring

Course	Title	Credits
NURS 240	Pathophysiology	4
NURS 241	Pharmacology/Nutrition	4
NURS 242	Pharmacology/Nutrition Lab	1
NURS 243	Foundations of Professional Practice	3
NURS 244	Health Assessment	3
NURS 245	Foundations & Health Assessment Lab	2
Total credits		17

Junior Level — Fall

Course	Title	Credits
NURS 352	Care of Young and Middle Age Adults	5

NURS 353	Care of Older Age Adults	5
or *		
NURS 354	Care of Women & Childbearing Families	5
NURS 355	Care of Children & Adolescents	5
	Social Science Distribution Course	3
	Interdisciplinary Course	3
Total credits		16

or * means students take two of the clinical courses (5 credit courses) during one term and will take the other two clinical courses in the next term. For example, a student would have NURS 352 and NURS 353 in the fall term and take NURS 354 and NURS 355 during the spring term.

Junior Level — Spring

Course	Title	Credits
NURS 352	Care of Young and Middle Age Adults	5
NURS 353	Care of Older Age Adults	5
or *		
NURS 354	Care of Women & Childbearing Families	5
NURS 355	Care of Children & Adolescents	5
PHIL 320	Ethics	3
Total credits		13

Senior Level — Fall

Course	Title	Credits
NURS 472	Nursing Research	3
NURS 479	Senior Assignment	1
NURS 474	Care of the Person with Mental Health Needs	5
NURS 475	Care of Populations	5
or *		
NURS 481	Nursing Leadership & Management	3
NURS 482	Transition to Professional Practice Role	4
NURS 476	Care of the Person with Complex Health Needs	5
Total credits		14–16

or * means students take two of the clinical courses (5 credit courses) during one term and will take the other clinical course in the second term. For example, a student would have NURS 474 and NURS 475 in the fall term and take NURS 476 during the spring term.

Senior Level Spring

Course	Title	Credits
NURS 481	Nursing Leadership & Management	3
NURS 482	Transition to Professional Practice Role	4
NURS 476	Care of the Person with Complex Health Needs	5
NURS 474	Care of the Person with Mental Health Needs	5
NURS 475	Care of Populations	5
NURS 489	Senior Assignment	1
Total credits		10–13

Total for graduation 125

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 in Nursing through 3 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. Course

work and clinical experiences are of the same high quality as the traditional first-degree baccalaureate progression, but taken at an accelerated pace. Upon successful completion of the option, students are eligible to take the National Nursing Licensure Exam (NCLEX-RN) 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 full-time program begins in August (fall semester). ABS students pay differential tuition and fees as approved by the SIUE Board of Trustees.

Admission Requirements

Application Procedure-Accelerated Option

Application review for the Accelerated Option will begin Jan 1. In order for an application to be reviewed all materials must be present. Please refer to the steps listed below for the items needed to constitute a complete application. Students who meet and exceed the admission requirements will be admitted on a rolling basis until the Option is full. If space is available, applications will be reviewed until April 1. Submit the following materials to the School of Nursing, Box 1066, Edwardsville, IL 62026.

1. a baccalaureate degree (in any major field) from an accredited college or university
2. a cumulative GPA of 3.0 on a 4.0 scale (includes all college-level course work)
3. a completed ABS application (plus a \$25 fee)
4. admission to the university (requires submission of a university application plus a \$30 fee)
5. official transcripts from all college/universities attended
6. two letters of reference completed by persons who can attest to your professional abilities
7. completion of the listed prerequisites

Meeting the minimum admission criteria does not guarantee admission to the program. Qualified applicants for the accelerated program are admitted directly into the School of Nursing after meeting all admission requirements.

Prerequisite Requirements

Courses to be Completed Before Enrollment in Nursing Courses

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
 All science courses must be completed within seven

years of admission to the program.

Accelerated Option Curriculum

Spring Semester

NURS 230 Introduction to Terminology, Inquiry and Writing in Nursing.....	2
NURS 233 Professionalism in Nursing.....	3
NURS 240 Pathophysiology.....	4
NURS 241 Pharmacology and Nutrition.....	4
NURS 242 Pharmacology and Nutrition Lab.....	1
NURS 243 Foundations of Professional Practice.....	3
NURS 244 Health and Physical Assessment.....	3
NURS 245 Foundations and Physical Assessment Lab.....	2
Total.....	22

Summer Semester

NURS 354 Care of Women and Childbearing Families.....	5
NURS 355 Care of Children and Adolescents	5
NURS 472 Nursing Research.....	3
Total.....	13

Fall Semester

NURS 352 Care of Young and Middle Aged Adults.....	5
NURS 353 Care of Older Age Adults.....	5
NURS 474 Care of Persons with Mental Health Needs.....	5
NURS 479 Senior Assignment.....	1
Total.....	16

Spring Semester

NURS 475 Care of Populations.....	5
NURS 476 Care of Person with Complex Health Needs.....	5
NURS 481 Nursing Leadership and Management.....	3
NURS 482 Transition to Professional Practice Role.....	4
NURS 489 Senior Assignment.....	1
Total.....	18
Grand Total.....	69

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 on a part-time format to accommodate the needs of working RN's. The program length is typically four semesters, but students may choose to complete the courses on a slower progression. Admissions are every fall semester.

Admission Requirements

Application Procedure - RN to BS Option

Application review for the RN to BS Option begins February 1. Applications are available on the School of Nursing website (www.siu.edu/nursing) or by contacting the RN to BS Advisor, School of Nursing, Alumni Hall Room 2117, or by calling 618-650-3956. An application to this Option will be considered ready to be reviewed for admission when all of the steps below have been completed. Students that meet or

exceed the admission requirements will be admitted on a rolling basis until the Option is full. If space is available, applications will be reviewed until August 1.

1. Admission to the University.
2. Completed application to the School of Nursing.
3. Copy of current unencumbered RN license in Illinois (unless currently completing an associate or diploma program at the time of application).
4. Cumulative GPA of 2.0/4.0 scale (includes all college level courses).

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 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 2 months prior to their initial course in the program. The portfolio will be reviewed by the Assistant Dean of Undergraduate and Alternative Programs. 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.

RN to BS Curriculum

Bridge Courses

NURS 230 - Intro to Terminology, Inquiry, Writing in Nursing (8 wks).....	2
NURS 323 - Concepts and Processes of Professional Nursing (8 wks).....	3
NURS 335 - Health Assessment.....	3
Total Bridge Credits.....	7

Remaining RN to BS Option Nursing Courses

In addition to the bridge courses, students will enroll in the following nursing courses to complete the RN to BS curriculum:

NURS 240 -

Pathophysiology.....	2
NURS 472 - Nursing Research (prereq-Statistics)...	2
NURS 475* - Care of Populations (3 hrs theory; 2 hrs practicum).....	3
NURS 480 - Professional Nursing Leadership.....	4
NURS 479/489 - Senior Assignment.....	2
Total	
Credits.....	18

*Students will be required to spend some days at a clinical site for this course.

General Education Requirements

In addition to the nursing courses, students must complete the following general education requirements prior to being eligible for graduation:

English Composition I.....	3
English Composition II.....	3
Speech (see note).....	3
Logic.....	3
Statistics.....	3
Ethics.....	3
Chemistry.....	4
Anatomy & Physiology I.....	4
Anatomy & Physiology II.....	4
Microbiology.....	3
Introductory level Social Science.....	3
Introductory level Social Science.....	3
Advanced level Social Science.....	3
Introductory level Fine Arts/Humanities.....	3
Interdisciplinary Course.....	3
Intergroup Relations requirement	
International Issues/Culture requirement	
Elective Courses if needed (varies by student)	

NOTE: Public Speaking or Interpersonal Communications will meet this requirement. An Interpersonal Communications class will count for the Speech requirement **PLUS** the Intergroup Relations requirement.

Additional Curriculum Requirements for All Baccalaureate Students

Service Commitment

All Nursing majors are required to complete a Service Learning Commitment. During the first semester of study in the School of Nursing each student, with guidance from an assigned faculty mentor, will select a service commitment. The service experience and the learning that accompanies the experience are included in the portfolio notations.

Mentorship

Each student upon admission to the School of Nursing will be assigned a faculty mentor. The mentor provides support and direction as the student embarks on portfolio development and analysis of meaningful educational experiences. Students are expected to meet with their mentor at least once per semester and work with the faculty member in designing and evaluating the portfolio development. Ideally, students have the same mentor throughout their academic career at SIUE. However, students may request a change of mentor through the Assistant Dean of Undergraduate and Alternative Programs. Students and faculty maintain meeting logs.

Portfolio Development

Each student prepares a professional portfolio. The portfolio serves to demonstrate student learning and traces knowledge development and the integration of basic sciences into nursing. The portfolio will show student reflection of the clinical experiences, service commitment, integration of knowledge, and an outline of knowledge development. Students initiate a portfolio development process that continues throughout their academic nursing program. It is an expectation that portfolios are updated each semester. The portfolio is reviewed and critiqued by the faculty mentor.

Senior Assignment

All Nursing majors are required to complete a Senior Assignment. The student will be introduced to the Senior Assignment in, NURS 233 Professional Nursing or NURS 323 Professional Nursing. The faculty mentor will guide the development of the Senior Assignment. During the senior year, the students enroll in courses (NURS 479 and 489) dedicated only to Senior Assignment activities. The purposes of the formal classes are to synthesize and refine the portfolio document, write a scholarly paper, and develop a 15-20 minute oral presentation that represents the culminating experience that will be judged by the faculty community.

Standardized Exams

Basic 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.

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.

Retention Requirements

Grading

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=70-75 and F below 70. Students will be excluded from the School of Nursing if they receive two failing grades (grades below C) in nursing courses.

All Basic Option and RN/BS students admitted to the undergraduate nursing program are required to maintain a cumulative GPA of 2.5 or above. ABS students admitted to the undergraduate nursing program are required to maintain a cumulative GPA of 3.0 or above.

Pre-licensure 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 Students Handbook for details).

Graduation Requirements for Baccalaureate Programs

- Completion of 124 credit hours.
- Overall GPA of 2.5 for Basic Option and RN/BS students, overall GPA of 3.0 for ABS students.
- Successful completion of School of Nursing Curriculum requirements.
- Successful completion of Senior Assignment.

Non-Degree Seeking Options

The Option in Nursing Management

The SIUE School of Nursing offers a 12-credit-hour undergraduate option in nursing management. The program provides basic level knowledge in nursing management without the requirements associated with the pursuit of a degree. Students are admitted to the option of nursing management in the fall semester only.

The Option in Gerontological Nursing

The SIUE School of Nursing offers a 12-credit-hour undergraduate option in gerontological nursing. The program provides a foundation in gerontological nursing

knowledge for registered nurses or other related health professional students who function in acute care, primary care, long-term care of community agencies or for the professional interested in pursuing a career in gerontological nursing.

School Nurse Certification Option

A School Nurse Certification Option is also available for the baccalaureate prepared nurse (with a major in Nursing) that has minimum of two years of nursing experience. The nursing baccalaureate program, supplemented by additional certification requirements, provides the education and experience needed for school nurses to practice in an independent school setting. After completing a one-semester internship, students are eligible to write the Illinois Board of Education Type 73 School Service Personnel/School Nurse Certification Exam.

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 http://www.siu.edu/nursing/academic/cont_ed.shtml.

Minor Requirements

A minor in nursing is not available.

Other Sources of Information

Prospective students and those currently enrolled may obtain additional information from brochures and the Student Handbook.



S c h o o l o f P h a r m a c y

**Philip J. Medon, Ph.D.
Dean and Professor**

www.siu.edu/pharmacy

SIUE is 50!

Since 1957, SIUE has grown from 1,776 students to nearly 13,500. Join us as we reflect upon and celebrate the accomplishments of students, faculty, alumni, and community members who have helped make SIUE the premier Metropolitan University we are today. Visit our Web site for 50th Anniversary event details:

www.siu.edu/50

School of Pharmacy

Professors: Crider, A.; Ferguson, P. (Provost and Vice Chancellor for Academic Affairs); Gupchup, G.; Luer, M.; Medon, P.; Poirer, T.; Siganga, W.

Associate Professors: Kolling, W.M.; Lynch, J.C.; McPherson, T.B.

Assistant Professors: Bergman, S.; Devraj, R.; Herndon, C.M.; Karpinski, J.P.; Kerr, J.L.; Kwon, G.; Lubsch, L.M.; Nieto, M.J.; Reaka, A.J.; Santanello, C.R.; Timpe, E.M.; Wiley, L.M.; Worthington, R.E.; Wuller, W.R.

The School of Pharmacy is SIUE's newest academic program, 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 will consider applications from qualified students who have completed a defined pre-professional curriculum at accredited colleges or universities. The professional pharmacy program will comprise didactic, laboratory and clinical experiences.

Vision Statement

The School of Pharmacy, located in a major metropolitan university, is committed to providing excellence in pharmaceutical education and the development of pharmacy leaders as a service to the community and the improvement of the quality of health care services.

Mission Statement

The mission of the School is to prepare pharmacist practitioners capable of providing high-quality health care to meet the diverse pharmaceutical care needs of the citizens of Illinois and to serve the profession of pharmacy through a balanced program of education, research, service and patient care. The School of Pharmacy embraces the educational philosophy of the University that is dedicated to communication, expansion and integration of knowledge through excellence in its teaching programs; through the scholarly, creative and research activity of its faculty, staff and students; and through professional and community service.

Goals

The goals of the School of Pharmacy are:

- 1 To prepare graduates of the professional program to apply the pharmaceutical, social, administrative, and clinical sciences in order to deliver pharmaceutical care in a manner which promotes positive health outcomes and an interdisciplinary role.
- 2 To foster intellectual curiosity and a commitment to life long learning.
- 3 To provide programs, services, and resources that fosters an environment for the personal and professional growth of students, alumni, practitioners and faculty.
- 4 To contribute to the advancement of the clinical, basic medical and pharmaceutical sciences.
- 5 To contribute to the advancement of pharmacy practice through research and scholarship and by service to the profession.
- 6 To inculcate a spirit of respect for diversity and good citizenship.

The Doctor of Pharmacy (Pharm.D.) Degree

Graduates of the SIUE School of Pharmacy will earn the Doctor of Pharmacy (Pharm.D.) degree. This program requires at least 2 years of a specific pre-pharmacy curriculum followed by 4 academic years of a professional pharmacy program.

Pre-pharmacy Curriculum: The defined pre-pharmacy curriculum contains a strong emphasis on biology, chemistry, mathematics and physics, along with specific general education courses.

Science and Mathematics Requirements	49
BIOL120-Animal Systems	4
BIOL121-Plant Systems	4
BIOL240a, b-Human Anatomy and Physiology	8
CHEM 121a, b; 125a, b-General Chemistry with labs ..	10
CHEM241a, b; 245-Organic Chemistry with lab	8
MATH150-Calculus	5
PHYS206a, b-College Physics with labs	10
General Education Requirements	21
ENG101-English Composition I	3
ENG102-English Composition II	3
ECON111 or 112-Macro or Microeconomics	3
PHIL106-Critical Thinking	3
One of the following:	
SPC103- Interpersonal Communication	
SPC105-Public Speaking	3
One of the following:	
SOC111-Introduction to Sociology	
PSY111-Foundations of Psychology	
POLS111-Introduction to Political Science	3
One of the following:	
ART111-Introduction to Art	

A literature course	
MUS111-Introduction to Music History/Literature	
THEA111-The Dramatic Experience	3
Total	70

Doctor of Pharmacy (Pharm.D.) Curriculum

Fall Semester — First 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 710 Statistics and Literature Evaluation	3
PHEP 714 Introductory Pharmacy Practice Experience I: Professional Role Observations	1
Total	18

Spring Semester — First Professional Year

PHPS 701 Principles of Drug Action II	2
PHPS 703 Molecular Biology and Pharmacogenomic Principles	2
PHPS 705 Biopharmaceutics and Drug Delivery II	2
PHPS 707 Pharmacy Skills and Techniques	2
PHAS 709 Health Care and Financial Management	2
PHPR 711 Drug Information	3
PHPR 713 Self Care and Alternative Medicines	4
PHEP 715 Introductory Practice Experience II: Service Learning	1
Total	18

Fall Semester — Second Professional Year

PHPS 720 Biopharmaceutics and Drug Delivery III	3
PHPS 722 Microbiology and Immunology	3
PHPT 724 Integrated Pharmacotherapeutics: CV/Renal	5
PHPT 726 Integrated Pharmacotherapeutics: Endocrine/Metabolic/Nutrition	4
PHAS 728 Human Resources Management	2
PHEP 730 Introductory Pharmacy Practice Experiences III	1
PHEP 732 Pharmacy Rounds I (Taken either Fall or Spring)*	
Total	18-19*

Spring Semester — Second Professional Year

PHPR 721 Clinical Pharmacokinetics	2
PHPT 725 Integrated Pharmacotherapeutics: Infectious Diseases	4
PHPT 727 Integrated Pharmacotherapeutics: GI/Rheumatology/Pulmonary	5
PHEP 731 Introductory Pharmacy Practice Experience IV	1
PHEP 732 Pharmacy Rounds I (Taken Fall or Spring)*	1
PHAS 733 Pharmacy Law and Ethics	3
PHPR 735 Physical Assessment and Patient Care Skills	3
Total	18-19*

Fall Semester — Third Professional Year

PHPT 740 Integrated Pharmacotherapeutics: Psychiatry and Neurology	4
PHPT 742 Integrated Pharmacotherapeutics: Women and Men's Health	2
PHPR 744 Health Promotion and Literacy	3
Electives	6
PHEP 746 Pharmacy Rounds II	1
PHPR 748 Medication Management Training I	1
PHPR 750 Medication Management Training II	1
Total	18

Spring Semester — Third Professional Year

PHPT 741 Integrated Pharmacotherapeutics: (upon approval) Oncology/Hematology	4
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PHTP 743 Integrated Pharmacotherapeutics: (upon approval) Eyes, Ears, Dermatology and Others	2
PHPS 745 Biotechnology	2
PHEP 747 Pharmacy Rounds III	1
PHPR 749 Medication Management Training III (upon approval)	1
PHPR 751 Senior Project	1
*Management Selective	2
*Choose one from:	
PHAS 753 Management Elective: Community	
PHAS 755 Management Elective: Institutional	
PHAS 757 Management Elective: Clinical	
Electives	5
Total	18

Fourth Professional Year — Advanced Pharmacy Practice Experience (APPE)

PHEP 780 APPE I (Community)	5
PHEP 781 APPE II (Institutional)	5
PHEP 782 APPE III (Ambulatory Care)	5
PHEP 783 APPE IV (Acute Care)	5
PHEP 784 APPE V (Elective) (upon approval)	5
PHEP 785 APPE VI (Elective) (upon approval)	5
PHEP 786 APPE VII (Elective) (upon approval)	5
PHEP 787 APPE VIII (Elective) (upon approval)	5
Total	40
Grand Total	149

(Course descriptions for first- and second-year courses only are listed in this catalog.)

Admission Procedures

Admissions to the professional program of the School of Pharmacy are limited and are therefore competitive. Specific admissions criteria are determined annually by the Admissions Committee and may be changed without notice. The following is a summary of the admission requirements and procedures:

Minimum Pre-pharmacy Requirements: All courses listed in the Pre-pharmacy Curriculum must be completed with a minimum grade of "C" prior to enrollment in the professional program of the School of Pharmacy. In order to be considered for admission to the professional program, the minimum cumulative and pre-pharmacy grade point averages are 2.50. Attaining these minimums does not guarantee admission, and specific minimums may be modified depending on the size of the applicant pool.

PCAT: Applicants must take the Pharmacy College Admissions Test (PCAT) prior to application and have the scores sent directly to the School of Pharmacy at SIUE.

Resident Status: Non-resident applicants may be considered for admission to the School of Pharmacy. The Dean may admit exceptional non-resident applicants to the pharmacy program as determined by academic records, personal and professional characteristics, and upon recommendation of the Admissions Committee.

Professional Program Application: Admission applications will be available on-line or by mail. Application availability and deadline dates are posted on the School of Pharmacy website at: www.siu.edu/PHARMACY. The application includes:

- personal information, including demographics,
- educational information summary,
- official copies of all college and university transcripts,
- letters of support,
- a non-refundable application fee.

Professional Program Interview and Writing Exercise:

Information obtained from all the aforementioned sources will be assembled into an individual applicant dossier for consideration by the Admissions Committee of the School of Pharmacy. Selected applicants (selection to be based on academic performance and strength of application) will be invited to SIUE for an on-campus interview. These selected applicants will be interviewed by selected faculty and pharmacy practitioners who will assess the applicant's academic preparation, motivations, and suitability for a career in pharmacy.

Admissions Decision: Following completion of the Professional Program Interview, the Admissions Committee will consider all aspects of the applicant's dossier and make recommendations regarding admission to the Dean. Only at this point will applicants be notified of their admission status. Admitted applicants will be required to submit an admissions deposit to hold their space in the admissions class.

For more information, contact:

School of Pharmacy, Campus Box 2000
Southern Illinois University Edwardsville
Edwardsville, IL 62026-2000
Phone: (618) 650-5150
www.siu.edu/PHARMACY

University Honors Programs

The Honors Scholars Program is designed for outstanding students to plan individualized academic programs. It enables talented students to study in one or two academic areas in depth, or to explore a variety of courses outside their major. The program serves students from all disciplines.

Students admitted as Meridian Scholars or Honors Scholars plan their academic programs with the help of faculty advisers 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.

General Education Requirements

To fulfill the general education requirement, Honors Scholars take at least 33 semester hours. Of these, a minimum of three courses (at least nine credits) must be in each of the three general education of fine arts and humanities, natural science and mathematics (one of these courses must emphasize scientific inquiry), and social sciences. No more than nine hours may be taken at the 111 level. Questions as to whether certain courses count toward the fulfillment of area requirements are resolved by the Honors Program Director in consultation with the student's adviser. Scholars can fulfill three hours of the requirements of one general education area with courses from their major.

To complete their 33 hours, Scholars are 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. Scholars are also required to take three semester hours of an interdisciplinary seminar (HONS 320). Scholars are also required to complete one course exploring intergroup relations and one course exploring either international issues or international culture.

Meridian Scholars Program

Meridian Scholars is a premier scholarship program that recognizes young scholars interested in special academic opportunities as undergraduates. To be considered for the Meridian Scholars Program, a student must earn at least a 27 ACT or 1200-1300 SAT and at least a 3.75/4.00 high school grade point average or rank in the top 10% of the high school graduating class. Meridian

Scholars receive an eight-semester, renewable scholarship that pays in-state tuition, mandatory fees, and housing in a residence hall at the shared room rate and Meal Plan A.

Meridian Scholars are automatically admitted to the Honors Program. Selection of Meridian Scholars is made by the Meridian Scholars Selection Committee based on the candidate's previous academic work, high school and community activities, and special talents. For preferential consideration, an applicant must be an entering freshman and submit:

- an application for undergraduate admission by December 1
- the Meridian Supplemental Profile, also by December 1
- ACT or SAT scores
- an official copy of the high school transcript from an Illinois high school, indicating rank in class at the end of the sixth semester or later.

All application and supporting materials should be sent to Student Financial Aid, Campus Box 1060, Southern Illinois University Edwardsville, Edwardsville, IL 62026-1060.

Honors Scholars

Freshmen with excellent high school class rank and ACT scores are eligible to become Honors Scholars. Sophomore and transfer students with GPA's of 3.5 or above are also eligible to become Honors Scholars. Sophomore and transfer students accepted as Honors Scholars must meet the requirements of the Honors Program through courses accepted for transfer or through University courses approved by the College or School Honors Scholars Coordinator and the Honors Program Director.

In addition to a completed application, letters of recommendation are required from at least three instructors familiar with the student's high school or university work. High-ranking high school seniors are encouraged to apply for admission to the Honors Scholars Program upon matriculation at SIUE. Selection of Honors Scholars is made on the basis of candidates' previous academic work, together with the letters of recommendation from instructors. Additional details can be found at www.siue.edu/prospectivestudents/honors.shtml.

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. Colloquium proposals must be submitted to the dean of the College of Arts and Sciences.

After obtaining the adviser'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 for 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, the members of the colloquium summarize their accomplishments and evaluate their achievements; they submit a final report to the faculty adviser before the close of the final examination period of the term for which the colloquium will be credited. The faculty adviser forwards the final report to the dean, recommending approval or disapproval along with the 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 only toward elective hours, 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, whichever is appropriate, will decide.

Undergraduate Research Academy

The Undergraduate Research Academy (URA) at SIUE encourages, supports, and enables students to conduct original research and creative activities at the undergraduate level. The academy recognizes that student talents can be uncovered in ways that do not appear through the usual format of classroom instruction and testing. Because the University requires all students to undertake a senior assignment as part of University assessment, the URA serves to highlight and support students who seek honors recognition for this activity. An undergraduate research or creative activity enhances the quality of the baccalaureate experience by giving students opportunities to pursue ideas independently, to interact with faculty, and to engage more fully in the educational process of discovering and creating. Undergraduates who become directly involved in original scholarly activity are usually able to obtain jobs more easily upon graduation and also are more likely to enter graduate studies and to become committed to advancing knowledge within their fields.

In cooperation with the academic departments at SIUE, the URA recruits eligible students as URA Scholars to undertake research and creativity activity under the guidance of dedicated faculty members. The process involves several stages: submitting a proposal and budget for approval, an interview, acceptance into the Academy, doing the research or creative activity during the semesters specified in the proposal, participating in periodic URA events, preparing a final report in publishable form, and presenting the results at the URA Symposium. The URA provides budgetary support for conducting the scholarly activity as well as advisory support during preparation of the proposals and reports. The Office of Undergraduate Assessment & Program Review, in which the URA is housed, assists students during their work by arranging purchase of commodities and services as necessary and by providing prompt administrative support as needed. The academic departments and supervising faculty mentor(s) provide all

necessary research guidance and facilities. In addition, URA Scholars receive a fellowship award in two installments—the first at the end of the academic semester in the Academy, and the second after they have completed their reports and made their final presentations.

Full-time students who have been accepted as a major in any of the disciplines at SIUE and who maintain a grade point average of 2.3 or better are eligible to compete for URA Fellowships. Students must have junior or senior standing at the time they conduct their URA work and, often, may use the URA project to fulfill the Senior Assignment requirement for graduation. Proposals must be signed and submitted in the prescribed form to the Undergraduate Research Academy, Office of Undergraduate Assessment & Program Review, Box 1300, SIUE, Edwardsville, IL 62026-1300.

More information and application/proposal forms may be obtained from departmental offices, offices of the college and school deans, the Office of Undergraduate Assessment and Program Review, (618) 650-2640, and from the Web site: www.siue.edu/assessment.

Study Abroad

Through its study abroad programs, SIUE complements the work of its academic departments by facilitating the placement of students overseas. Whether studying a foreign language and its culture, researching international business practices, or immersing oneself in nursing practices of another country, students studying abroad learn new perspectives and ideas.

SIUE offers opportunities for undergraduate study abroad in a variety of countries. These take the form of semester-long, direct exchanges arranged by SIUE or programs provided by recognized study abroad organizations. SIUE students recently have participated in programs in Mexico, France, England, Austria, Sweden, The Netherlands, Argentina, Australia and Spain. Study abroad fulfills University undergraduate academic requirements and generally qualifies for financial aid.

In addition, SIUE offers travel study opportunities in which students accompany faculty to a foreign destination to undertake academic course work directed by that faculty member. Travel study varies from 2 to 6 weeks.

For more information about study abroad, visit the study

abroad Web site, www.siue.edu/STUDYABROAD, come to the Office of Study Abroad in Morris University Center, room 2053, write to Office of Study Abroad, Box 1159, SIUE, Edwardsville, IL 62026-1159, phone (618) 650-2419, or e-mail Julie Beall-Marshall jbeall@siue.edu, the Study Abroad Coordinator. For more information about International Programs, contact Ron Schaefer, rschaefer@siue.edu, (618) 650-3298.

Instructional Services

Academic Development Courses and Services

Instructional Services, on the first floor of Peck Hall, offers students a variety of support services designed to maximize their opportunities for academic success. Services include academic development courses, workshops, testing services, and individual assistance in the Writing Center and Mathematics Resource Area. Students may develop skills in subjects such as reading, writing, and mathematics, and develop study strategies such as time management, note-taking, test preparation, organization for study, and career decision making.

Some students who enter the University take placement tests as part of the University's assessment plan and as a way to determine at which level in reading, writing, and mathematics they should begin their study. The University requires freshmen to meet minimum competency in each of these areas before enrolling in introductory-level general education courses. Freshmen who need to prepare for entry into general education courses may do so through developmental courses offered by Instructional 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 in reading speed and efficiency, study skills, career planning and development, and orientation to university life are available to students who wish to focus on these specific areas. Classroom activities in all Instructional Services courses actively involve students in developing their skills. Computer aided instruction frequently is incorporated into courses. Out-of-class study groups also are encouraged.

Testing Services

A complete range of testing services is available to students. Instructional Services administers the Miller Analogies Test, the subject tests for the Graduate Record Examination (GRE), the Pharmacy College Admissions Test (PCAT), the American College Test (ACT), the College Level Examination Program (CLEP), proficiency examinations, examinations for the School of Nursing, and University placement tests.

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 admission or advisement may obtain information from Instructional Services in Peck Hall, room 1404, or by calling (618) 650-3717, or visiting the Testing Services web site at www.siu.edu/IS/TEST.

Instructional and Tutorial Assistance

Instructional Services provides assistance to students enrolled in mathematics courses through its Mathematics Resource Area in Peck Hall, room 1414. Students are helped on a first-come, first-served basis by qualified peer tutors and instructors. Small groups are welcome, and students are encouraged to use the area for working with other students on their mathematics assignments. For more information, call (618) 650-2039.

The Writing Center provides individual assistance with papers, reports, and theses. Self-instructional materials also are available on a wide variety of writing topics such as organization, paragraphing, grammar, and English as a second language. The Writing Center is in Peck Hall, room 1419, and is open for daytime, evening, and weekend use. For more information, contact the Center at (618) 650-2045 or by e-mail at wcenter@siue.edu.

Individual departments also may provide tutorial assistance. Students should contact the specific department to determine whether such assistance is available. Instructional Services maintains a list of departmental tutorial services. In addition, Instructional Services offers Supplemental Instruction, regularly scheduled voluntary group study sessions, in selected major and general education courses that are traditionally considered difficult. Students should check the Instructional Services home page at www.siu.edu/IS for links to tutoring resources.

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.

Instructional Services staff are in the 1400 wing of Peck Hall and are available to help students. For more information or assistance, students should stop by the Instructional Services office in Peck 1404, call (618) 650-3717, or visit the Instructional Services Web site at www.siu.edu/IS.

Student Development and University Activities

Kimmel Leadership Center

Students enrolled at the University will find many opportunities for developing their potential and obtaining challenging leadership and service roles. Student Government, the Student Leadership Development Program, Campus Activities Board, student organizations, fraternities and sororities, University committees, honorary organizations, and departmental activities offer such opportunities.

The Kimmel Leadership Center, on the first floor of Morris University Center, provides students with numerous services, programs, and activities to help them develop their potential. The Kimmel Leadership Center is the focal point for Student Government and its functions, the Student Leadership Development Program, the Campus Activities Board, student organizational activities, and several related student-sponsored 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 twelve programming committee chairs — one for each of the following areas: Black Heritage Month, concerts, current affairs, entertainment, family programs, Homecoming, multicultural programs, novelty, recreation, special events, Springfest and Welcome Week.

Students interested in becoming a part of the Campus Activities Board may contact the Kimmel Leadership Center in Morris University Center at (618) 650-2686 or visit their Web site at www.siu.edu/CAB.

Fraternities and Sororities

Fraternities and Sororities provide a rich tradition of leadership and service to the SIUE community.

Greek organizations 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 offers students the opportunity to form life-long friendships, gain leadership experience, assist 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 Leadership Center in Morris University Center at (618) 650-2686 or visit the Greek Life Web site at www.siu.edu/kimmel/greek.

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 finance chair, the external affairs chair, the internal affairs chair, the Student Organization Advisory Board chair, School Spirit and Pride Chair, and the student trustee, a member of the SIU Board of Trustees. In addition, there is a 12-member Student Senate and a Student Government staff.

Students interested in becoming part of Student Government may contact Student Government at (618) 650-3819, or visit their Web site at www.siu.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). Additional programs include Stephen Covey's Seven Habits of Highly Effective People® and IMAGE.

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. Students who successfully complete the program receive a Student Leadership Transcript. For more information, contact the Kimmel Leadership Center at (618) 650-2686 or www.siu.edu/kimmel/sldp.

Volunteer Services

The Kimmel Leadership Center offers volunteer services through organized group projects, break trips, individual volunteer placement, service-learning classes, and non-paid internships. Volunteer services allow students to apply academic knowledge, gain skills and experience, and contribute to the community. Volunteer opportunities are available throughout the St. Louis metropolitan area and within the University community. For more information, contact the Kimmel Leadership Center at (618) 650-2686 or www.siu.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 140 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. These activities include Welcome Week, Homecoming, Black Heritage Month, and Springfest.

The Kimmel Leadership 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 Senior Fair, Red Cross blood drives, Preview SIUE, Springfest, and Welcome Week. Students interested in student organizations may contact the Kimmel Leadership Center at (618) 650-2686 or visit the Web site at www.siu.edu/kimmel.

University Center Board

The University Center Board (UCB) serves as an advisory board that functions as the primary

recommending body to the director of Morris University Center. The advisory board consists of the Building Services Committee, Facilities Committee, Finance Committee, and Policy Review Committee. Students interested in becoming part of the University Center Board may contact the Morris University Center director's office, (618) 650-2300.

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 Vadalabene/Student Fitness Center is available during the day, in the evenings, and on weekends to serve the recreational needs of the University community. The Student Fitness Center offers extensive opportunities for fitness and recreational pursuits. The Student Fitness Center contains:

- four indoor courts for basketball, volleyball, tennis, indoor soccer and roller hockey
- a suspended jogging track;
- a 4,000-square-foot weight room;
- a 4,000-square-foot aerobic exercise room;
- a 4,000-square-foot cardiovascular exercise room;
- the Wellness Resource Lab;
- a student social lounge with wide-screen TV.

The adjoining Vadalabene Center offers:

- an indoor pool;
- four racquetball courts;
- an aerobics/group activity room;
- a rock-climbing gym;
- shower and locker rooms.

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

Intercollegiate Athletics

Intercollegiate Athletics provides students with opportunities to enhance their education, represent the University, and participate in competitive sports while developing skills and understanding. Undergraduate

students possessing the necessary requirements, capabilities, and interests are encouraged to participate. Participation, however, is secondary to the students' academic obligations.

The athletics program consists of 16 varsity sports: eight for men — baseball, basketball, cross country, golf, soccer, tennis, track and field, and wrestling — and eight for women: basketball, cross country, golf, soccer, softball, tennis, track and field, and volleyball. SIUE is a member of the National Collegiate Athletic Association and is making the transition to Division I Athletics. The Cougars will compete with full Division I schedules beginning with the 2008-2009 season.

Cougar teams have established a tradition of accomplishment by winning 17 NCAA Championships. The soccer team captured its first national Division II title in 1972 and a Division I crown in 1979. Men's tennis captured seven consecutive Division II titles from 1978 to 1984. The men's basketball team earned its first trip to the NCAA tournament in 1986, returned in 1987 and 1989, and had a breakout season in 2005, winning 23 games and returning to the NCAA tournament. The baseball, wrestling, and tennis teams are perennial qualifiers for their championships. The baseball team has made 20 NCAA tournament appearances, advancing to the College World Series eight times. The wrestling team won national championships in 1984, 1985, and 1986.

SIUE also has been successful in women's athletics. The 2007 softball team, playing in their 12th NCAA Championship, captured its first national title after winning its final 16 games of the season. The women's tennis team won four consecutive national titles from 1986 to 1989. Women's basketball and soccer have qualified for the NCAA Tournament four times each.

Track and field and cross country programs have had several NCAA All-Americans and numerous NCAA qualifiers from the men's and women's programs.

Athletic scholarships are available in all varsity sports and are awarded by the head coaches. All entering freshman athletes must fulfill the NCAA's high school core requirements to be eligible to compete during their freshman year. Prospective students may wish to seek information from a high school counselor early in their junior year and should apply with the NCAA Clearinghouse early in their senior year.

Facilities for home contests include the state-of-the-art 3,000-seat Ralph Korte Stadium, which also houses Bob Guelker Field, for track and field and soccer; the 4,000-seat Vadalabene Center; a newly renovated varsity softball complex; the Simmons-Cooper baseball complex, home to \$1.5 million newly renovated, 1,500-seat Roy Lee Field for baseball; six varsity tennis courts; and a national-caliber cross country course.

Students who wish to become involved in intercollegiate athletics should call (618) 650-2871 or e-mail ehess@siue.edu to request an appointment with the appropriate head coach. The Cougars also provide information on the Internet at www.siue.edu/ATHLETIC. (This is a case-sensitive address; use caps where indicated.)

Spiritual Development

Students and other members of the University may participate in the activities of the Religious Center, 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, and varied activities, and facilitate the connection of individuals with other resources on and off campus.

The Students' Advocate

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 vice chancellor for Student Affairs on any matter that concerns them. The vice chancellor serves as the students' ombuds and may be particularly helpful in resolving problems involving more than one office or agency of the University. The vice chancellor for Student Affairs may be consulted on matters of student rights and responsibilities, student conduct, and grievance procedures.

Students who wish to seek the assistance of the vice chancellor for Student Affairs may call (618) 650-2020 or make an appointment in Rendleman Hall, room 2306.

Services for Students

Academic Counseling and Advising

Students confer at least once each term with an academic adviser, who provides advice regarding appropriate courses, career options, and related matters. Advising is mandatory for all students prior to registration each term. For more information, please refer to the section on [Registration](#).

Academic advisers are located in Peck Hall, room 1315. Appointments for undecided and undeclared students are necessary and may be made by calling (618) 650-3701 for new students, or by using AdvisorTrac, the Web-based appointment scheduler, for continuing undeclared students.

Bursar

The Office of the Bursar, with a main office on the first floor of Rendleman Hall and a satellite office in the Service Center, provides a variety of services to students. Student billing records are available via CougarNet, and e-mails are sent by the Bursar's Office to notify students that billing data has been updated and when payments are due. Also, students are directed to a secure Web page for making credit card payments via the Internet. Students paying their tuition and fees, housing and other University charges by mail should include their student ID number with their payments.

The Bursar mails all refund checks, and disburses student paychecks. For more information about available services, view the bursar's Web site at www.siu.edu/BURSAR, e-mail bursar@siue.edu, or call (618) 650-3123.

Financial Responsibility

Students at SIUE will incur certain financial obligations. Although they may be eligible for various forms of financial aid, the final responsibility for those financial obligations is the student's. These financial obligations constitute an educational loan to assist in financing the student's education and are not dischargeable under the United States Bankruptcy Court. The University has developed an installment payment plan designed to make as convenient as possible the payment of tuition, fees, and other charges. Failure to meet financial obligations will have serious consequences: service charges will be

applied to past-due amounts, and transcripts and diplomas will not be issued. Continued failure to pay a past-due debt may result in the debt being referred to a collection agency. In that event, all reasonable collection costs will be added to the student's account in addition to any service charges that have accrued on the account.

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.

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 and a computerized career guidance program (SIGI PLUS), as well as the course AD 117, Career Development.

Our Cooperative Education 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 with information online and printed material. Accessing the Career Development Center's home page (www.siu.edu/careedevelopmentcenter) via the Internet allows complete access to the center. One can register with the office, view career positions as well as co-op jobs and internships on Cougar Jobline, and sign up for on-campus interviews simply by accessing the home page. Career fairs are held annually including: Career Network, Education Fair, Health Careers Fair and the October Career Fair allow 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 3126 Founders Hall, or visit our Web site at www.siu.edu/careerdevelopmentcenter.

Counseling Services

Counseling Services provides psychotherapy or counseling to students coping with educational, personal, and/or interpersonal issues; offers crisis intervention for residential students; and serves as a practicum site for students enrolled in clinical psychology and related programs. The office provides sexual assault counseling and advocacy for students and staff, and alcohol and drug information to the campus community. The counseling staff is committed to helping students adjust to living and learning in a university environment and to realize their worth and potential. Student counseling is conducted in a private setting, and all information remains confidential according to Illinois law. The office is located near the stop light at the intersection of North University Drive and Cougar Village Drive. Services also are available in the Health Service office in the lower level of Rendleman Hall. For more information about Counseling Services, please call (618) 650-2197 or visit our Web site: www.siu.edu/counseling.

Health Service

Health Service, in Rendleman Hall, room 0224 provides general outpatient care, laboratory diagnostic testing, women's health services and pharmacy services to members of 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 the University 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 three months of 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.

Wellness Activities

The University provides an environment for developing healthful habits and offers many opportunities for students, faculty, and staff to take part in programs and activities that promote healthful lifestyles and enhance physical, social, spiritual, occupational, emotional and intellectual development. Located in the Student Fitness Center, the Wellness 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 the Wellness Program, call (618) 650-B-WEL (2935).

Disability Support Services

The staff in the Office of Disability Support Services is responsible for implementing and coordinating many of the programs, activities, and services for persons with disabilities. The staff provide guidance and counseling, referrals to related offices and departments, and assistance in obtaining specialized equipment or supplies, support services, and special accommodations. A learning disabilities specialist also is available to help students with learning disabilities.

All students with disabilities are encouraged to visit the office, on the first floor of Rendleman Hall, at their earliest convenience to discuss available services. Persons may contact the director by calling (618) 650-3782 (V/T).

Early Childhood Center

Preschool education is available for children of SIUE students and University employees. The Early Childhood Center, on North West Road off Circle Drive, is open daily 7 a.m. to 6 p.m. Parents may choose from all-day or half-day a.m. programs. Children between the ages of two and five may be enrolled.

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 adviser and the director of the Early Childhood Center. For more information, call (618) 650-2556.

Student Legal Services

Students may seek 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 more information, call (618) 650-2686.

International Student Services

International Student Services provides a comprehensive range of services for international students at SIUE. These services include pre-enrollment assistance, immigration advisement, coordination of community hospitality programs, and general support and referral assistance. The international student advisers serve as a liaison with foreign governments and scholarship agencies, assist with foreign currency exchange and the processing of tuition deposits when necessary. The office is in room 2053 of Morris University Center.

Orientation

A required orientation tailored to the needs of international students is offered prior to each academic term. International Student Services cooperates with other University offices in offering a comprehensive orientation. Mathematics and English placement testing, academic advising, library and campus tours, registration, and temporary housing assistance are among the services offered.

Immigration Advisement

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

General Support Services

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

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. For more information, please call (618) 650-3785

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 of operation 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 the Service Center. In addition, several offices, including Parking Services and Textbook Service, offer some extended evening hours when classes are in session. Some services, including Lovejoy Library, Academic Counseling and Advising, and the University Bookstore, have extended hours Monday through Thursday evenings whenever 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 888-328-5168, ext. 2080 (toll-free from St. Louis) visit the Service Center Web site at www.siu.edu/registrar, or send e-mail to servicecenter@siue.edu.

Registrar

Offering services to past, present and future students, the Office of the Registrar is in Rendleman Hall. The Registrar is responsible for maintaining and protecting access to students' academic records. Services include registration, enrollment certification, transcript access, degree application processing, veterans' certification, transfer articulation and academic scheduling.

Many services provided by the Registrar may be accessed through the Service Center. In addition, answers to many questions may be obtained by visiting our Web site at www.siu.edu/registrar. Students also may access academic records online at www.siu.edu/COUGARNET.

University Housing

University Housing accommodates about 3,500 residents in smoke-free residence halls and apartments. Each air-conditioned suite and apartment has an active telephone jack, active data jacks, Wi Fi connections and expanded basic cable TV. Laundries are located in each residence hall and at various locations throughout Cougar Village. Trained Residence Life staff are available 24 hours a day. Residents may participate in hundreds of activities and programs every year.

Residence Hall Living and Learning

Residence Halls at SIUE are designed for student living with comfortable furnishings, technologically advanced facilities, and convenient access to classes and campus events. The "Halls" provide an exciting mix of academic and social opportunities in a relaxing and inviting

environment that residents call home.

SIUE has four residence halls: Bluff Hall, Evergreen Hall, Prairie Hall, and Woodland Hall. Each is unique and is designed to challenge and support different groups of residents.

Bluff Hall

Bluff Hall serves traditional freshmen (18-20 years old) and is home to Focused Interest Communities (FICs). FICs provide a living and learning environment that helps residents make the transition to SIUE and explore academic areas of interest. Freshmen should indicate their FIC preference on their housing application.

Evergreen Hall

Located at the corner of Circle Drive and Whiteside Road, accommodates 511 residents and houses upper-class and graduate students in a mostly apartment-style atmosphere. Occupants are able to choose between single rooms, suites with restrooms, or four-bedroom apartments with full kitchen facilities. Seventy-two percent of the living units contain private bedrooms. The building contains a 4,800 sq. ft. multifunction room, two classrooms, fitness facility, four student organization offices, a conference room, and 24-hour computer lab.

Prairie Hall

Prairie Hall also is devoted to serving traditional freshmen. Residents may participate in the Horizons Freshman Year Experience Program, designed to acclimate first-year students to college life and provide leadership and service opportunities. Persons should indicate their desire to participate in this program on their housing application.

Woodland Hall

Woodland Hall houses a mix of undergraduate students. Sophomores may participate in the Second Year Experience (SYE) program, which encourages leadership, offers academic and career guidance, and promotes personal development.

Residence Halls feature:

- air-conditioned four-person furnished suites with a common bath;
- active telephone jack with the option to purchase an additional line;
- data jacks that provide free connection to the campus network;
- Wi Fi Connections

- expanded basic cable TV service with access to UHTV-96, an in-house movie channel;
- 24-hour security;
- access for persons with disabilities;
- social (includes kitchenette, TV, and microwave) and study lounges on each wing;
- individual mailboxes;
- wall-to-wall carpet;
- 24-hour computer laboratory;
- sand volleyball and disc golf courses;
- social and academic programs and activities; and
- support programs and personnel to assist in adjusting to college/campus life.

Cougar Village Apartments

Cougar Village apartments are another exciting housing option at SIUE. The 496-unit apartment complex is the home of 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. Traditional freshmen are allowed to live at Cougar Village only as contracted family residents.

Single students may share an apartment with one, two, or three other students. Residents may request a shared bedroom or a private bedroom (as space permits). Besides general living areas, residents may choose to live in the Sophomore Village, or the scholars, graduate, and family buildings. More than 100 married couples (with and without children) and single parents make Cougar Village their home. Family 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.

The activity center at Cougar Village is the Commons Building, featuring a lounge with a wide-screen TV, the Commons Grill and Convenience Store, computer laboratory with Internet access, laundry, multifunction room, staff offices, and outdoor tennis, sand volleyball and basketball courts.

Services at Cougar Village include:

- furnished apartments with fully equipped kitchens;
- balconies and patios with most apartments;

- active telephone jack with option to purchase an additional line;
- data jacks that provide free connection to the campus network;
- Wi Fi Connections
- expanded basic cable TV with access to UHTV-96, an in-house movie channel;
- locked mailboxes;
- storage closet assigned to each apartment;
- free shuttle to campus core; bus service to surrounding communities for a fee;
- Cougar Lake Recreation Area;
- Family Resource Center; and
- computer laboratory in the Commons Building.

Application

An application for University Housing requires a \$300 deposit from all single student applicants. (The \$300 deposit consists of a \$25 non-refundable application fee, a \$75 security deposit, and \$200 applied toward room charges.) Family residents are required to pay a \$175 deposit (\$25 non-refundable application fee and \$150 applied toward room charges). Penalties are assessed for cancellation of the housing contract.

For more information about University Housing, write the Central Housing Office, P.O. Box 1056, Edwardsville, IL 62026-1056, call (618) 650-3931, or e-mail housing@siue.edu. Messages may be left after hours, on holidays, and on weekends. Additional information may be found at www.siue.edu/housing. (This address is case-sensitive; please use the capital letters as indicated.)

Off-Campus Housing

University Housing offers information about available off-campus facilities to help students, faculty, and staff locate available accommodations in the Edwardsville area. Students may refer to the listing on the Housing Web site at www.siue.edu/housing. The University reserves the right to deny the privilege of listing off-campus housing on the University Housing Web site if landlords do not comply with the Civil Rights Act of 1968, other laws governing discrimination, and governmental health and safety standards.

Dining Services

Dining Services offers meal plans for residence hall and Cougar Village/Evergreen Hall residents that may be used at the Commons Grill at Cougar Village, the Skywalk Food Court, Bluff Café and at all food outlets in Morris University Center, including Union Station (a convenience store) and Starbucks Coffee. Meal plans provide flexibility, convenience and savings. There is no need to carry cash; the plans utilize a computerized meal card. Residence hall students are required to purchase one of two meal plans. Because Cougar Village/Evergreen apartments include kitchens, purchase of a meal plan is optional for residents there.

The Center Court, on the lower level of Morris University Center, offers hot breakfast, lunch and dinner menus. It also features gourmet coffees, salads, and hot entrées including meat, vegetarian and vegan menu items and a carvery station. Noodle/Pasta offers a variety of cooked-to-order noodle/pasta bowls. Center Court also has a Grill Area, Bakers Nook, featuring a dozen varieties of breads and bagels, and Sweet Surprises with freshly baked cakes, pies, muffins, and cookies. The Deli/Panini Area includes a variety of made-to-order sandwiches, wraps, and hot panini sandwiches. Garden Patch includes an array of salads, soups, and fresh fruit. Chick-fil-A Express is also available.

Cougar Den, next to Center Court, houses a Pizza Hut Express including a variety of pizzas, breakfast sandwiches, hot sandwiches, hot wings and bread/cinnamon sticks. Taco Bell Express offers tacos, burritos, nachos, gorditas, quesadillas, and other specialties. Freshens offers an extensive assortment of frozen treats including smoothies, and soft-serve or hand-dipped ice cream.

Starbucks Coffee, on the first floor of Morris University Center, includes espresso, cappuccino, latte, frappuccino, gourmet sandwiches, salads, desserts, chocolates and cyber connections. Across from Starbucks 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 at modest prices. Students are encouraged to enjoy the restaurant's daily fare including the salad and entrée bar.

Dining Services locations outside Morris University Center include the Skywalk Food Court (top floor between Founders and Alumni Halls), Bluff Café, Commons Grill (Commons Building, Cougar

Village), and the Woodland/Prairie Food Cart (Woodland Hall).

SIUE Campus 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 9,000 direct connections to the SIUE enterprise servers, mainframe, and the Internet. Also, dial-in users may access the network through a modem pool. Wireless access is available at selected locations throughout the campuses. The network consists of more than 10 miles of fiber-optic cable and more than 136 miles of high-speed copper cable. The Office of Information Technology manages the campus network servers, which provide account, Internet and e-mail services.

Internet, E-Mail Accounts

All students are provided a campus network account as soon as they are enrolled. To obtain their account, they must go to the e-ID Web site, www.siu.edu/e-id. This includes a campus network account, Webmail, Blackboard and AdvisorTrack. Campus e-mail addresses are in the form <e-ID>@siue.edu. Personal Web pages can be accessed with a URL in the form www.siu.edu/~<e-ID>. Disk space allocated to each student for storing e-mail and Web pages is limited to 30 megabytes.

Lovejoy Library

Lovejoy Library maintains more than 1,000,000 volumes, over 1.6 million microform units and 30,000 audio visual items. The Library subscribes to more than 24,000 journals and periodicals, 18,540 of which are electronic and available to members of the University from their homes or offices. Lovejoy Library offers assistance to students, faculty and staff, and acquaints users with procedures for locating information and resources for papers, theses, or other research projects. The library's resource-sharing agreements make it possible for University students to use other academic, public, and special libraries in the St. Louis area. Electronic access is also provided to the collections of other libraries in Illinois and throughout the world. Materials from these collections may be obtained through interlibrary loan.

Audio Visual Services

Audio Visual Services provides complete audio-visual assistance, including the development of new media using current technology to meet the needs of University

faculty, staff, and students. Audio Visual Services maintains a collection of 5,000 items including films, CD-ROMs, videotapes, and DVDs. Students may check out media for up to seven days.

The Self-Help Laboratory is available to students who wish to produce their own instructional materials for classroom presentations. A staff member is available for technical assistance; there is a nominal charge for materials.

The Self-Instruction Laboratory provides equipment for using materials in the media collection. A small room is available for group viewing. Staff are available to help with hardware and software.

Academic Computing

Academic Computing manages computer laboratories and classrooms for student and instructor use. Hardware and software for curriculum support are purchased in consultation with multi-departmental cluster committees.

General purpose open-access student computer laboratories are located in Lovejoy Library, Bluff Hall, Evergreen Hall, Prairie Hall, Woodland Hall, Cougar Village Commons, Founders Hall, Alumni Hall, Peck Hall, Dunham Hall, the Science Building, the Art and Design Building, and the Engineering Building.

Library and Information Services (LIS)

Library and Information Services provides information resources and technology to support teaching, learning and scholarship. In partnerships with other academic units, Library and Information Services teaches information literacy skills and discernment for lifelong learning.

Morris University Center

Morris University Center is a hub of diverse campus activities. It also is an important bridge between the University, southwestern Illinois, and the St. Louis metropolitan community. Many area groups use MUC's conference center facilities on the building's upper level. An art gallery, computer laboratory, quiet study lounge, and University Restaurant are on this level. On the main level, Meridian Ballroom is the preferred venue for campus Arts & issues events, lectures, dances, and many university and community activities. Goshen Lounge is frequently the forum for debates, special events, exhibits, and entertainers. The Print & Design shop offers printing and copy services in addition to banners, posters and flyers to students, faculty and staff. Students may create

their classroom and leisure-time graphics with help from qualified staff. The **University Bookstore (650-2132)** stocks SIUE merchandise, school and art supplies, general interest books, computers and software, gifts, cards, supplemental course materials, and graduate-level textbooks. The Information Office serves as the campus and MUC's switchboard (SIUE's main line) and sells tickets for Campus Activities Board (CAB) events and late night dances, as well as bus passes. Also, the information Office provides maps, transportation and athletics schedules, campus directory distribution, and other campus information (650-5555). Union Station is the campus convenience store, providing newspapers, snacks, groceries, and beverages. An ATM offers automated banking services. Auntie Anne's pretzels and Starbucks Cyber Café, which offers coffee and other beverages along with pastries, sandwiches, and salads, are on this level. On the lower level, the recently renovated recreation area, Cougar Lanes, includes bowling with cosmic lighting, pool, video games, air hockey, and foosball (650-LANE/650-5263). University Hair offers complete hair styling services for men and women. For appointments, call 650-2299. Many SIUE dining options are located in Morris University Center, including the Center Court food area, Pizza Hut Express, Taco Bell Express, and Freshens smoothies.

New Freshman Welcome and Convocation

Before the first day of fall semester classes, the University sponsors New Freshman Welcome and Convocation—a series of activities designed to acquaint students with the University, including its academic programs and related requirements, and student life. The program provides opportunities for new students to meet other students, faculty, and staff members. The University expects new students to attend new student transition and welcoming activities.

Students who wish to gain a more thorough understanding of the University are encouraged to enroll in University 112, The University Experience, a two-credit elective course offered each term. University professors and staff who take a special interest in new students teach this course, and class size is restricted so that students may become well acquainted with their professors and with other students. University 112 also is designed to help students choose a major, plan a career, orient themselves to the University and higher education, understand their roles within the University, and develop a meaningful sense of community. For more information about University 112, contact Instructional Services at

(618) 650-3717.

Office of Continuing Education

The Office of Continuing Education provides support services to departments offering classes at off-campus locations and helps students who participate in off-campus classes. Staff from the Office of Continuing Education attend the opening session of classes to help students with admission, registration, fee payment, financial aid inquiries, and textbook distribution. Faculty and students should contact this office for help with matters related to instruction and attendance at off-campus classes.

SIUE, working with other community colleges and universities in Southern Illinois, may host courses delivered to SIUE via technology-mediated instruction.

For schedules of classes being offered off campus and for information about enrolling in these classes, students may contact the Office of Continuing Education, Campus Box 1084, Southern Illinois University Edwardsville, Edwardsville, IL 62026-1084, phone (618) 650-3210, or e-mail coned@siue.edu. Information about classes in the Belleville area also may be obtained directly from the SIUE/SWIC Service Office at Southwestern Illinois College, (618) 235-2700, ext. 5335, or e-mail coned@siue.edu. Information also may be viewed at www.siue.edu/CE.

Web-Based Courses

Web-based courses generally meet online rather than face-to-face. However, a Web-based class may meet face-to-face once or twice during the semester for an orientation or proctored exams. 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 www.library.siue.edu/ftc/blackboard/support/student.htm. Web-based learning also requires study skills different from those of traditional courses. To find out more about what it's like to take a Web-based course, please visit the Illinois Virtual Campus' Student Center Web site through the Continuing Education Web site at www.siue.edu/CE, or directly at www.ivc.illinois.edu.

Parking

SIUE parking is based on color-coded lots with corresponding permits. All vehicles must be registered and display a current SIUE permit. Commuter and resident student permits may be obtained at Parking Services on the first floor of Rendleman Hall.

All violations assigned to a registered vehicle are the responsibility of the person in whose name the permit is issued. Tickets issued on a non-registered vehicle belonging to members of the student's immediate family will be the responsibility of the student. Tickets may be paid and appeals filed at the Parking Services office.

Evening students have the option of purchasing a limited number of evening permits. These permits are sold on a first-come, first-served basis and allow parking after 3 p.m. in lots closer to classroom buildings.

For more information, please call (618) 650-3680 or visit the Parking Services Web site at admin.siue.edu/parking/.

Parking for Persons with Disabilities

In order to use parking spaces for persons with disabilities on University property, members of the University community who have state-issued disability hang tags, parking cards or plates also are required to purchase current SIUE disability parking permits from Parking Services. A verification process will be conducted to ensure that the requester of the SIUE permit is the person to whom the state parking card/license plate has been issued. For short-term disabilities, temporary disability parking permits may be issued by the University. Certification by the University's Health Service is a prerequisite to receiving a temporary disability permit. A current SIUE parking permit also is required. However, a temporary SIUE disability permit does not authorize a person to park in a space for the disabled. Rather, Health Service and Parking Services cooperate to provide these temporarily disabled persons with closer, more convenient parking than they normally would have.

New Student Registration

All entering freshmen will attend Springboard to Success, a mandatory pre-entry advisement program that will jump-start their University experience and allow a smooth transition to SIUE. Students will complete an hour-long advising appointment, register for classes, get an SIUE student I.D., and take care of other University business.

All entering transfer students who are undeclared are required to attend an hour-long advising appointment with an academic adviser in the Office of Academic Counseling and Advising.

Student Opportunities for Academic Results (SOAR), formerly Special Services

The objective of the SOAR program is to retain and graduate students served by the program. 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 adviser, and opportunities to attend cultural events. Students who meet the specified criteria and have a need for academic support are encouraged to apply to the program.

For more information about the SOAR program, please call (618) 650-3790 or stop by room 1313 in Peck Hall.

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 Southern Illinois University Edwardsville. The Cougar Card is an all-purpose card that can be used for identification, meal plans, vending, laundry, and admittance to SIUE buildings and events. The Cougar Card also can access two monetary accounts: Cougar Bucks (money that can be spent anywhere the card is accepted) and University Housing meal plans. Although the Cougar Card is entrusted to those who are enrolled at or employed by the University, it is a legal document and remains the property of the University. Students who lend, borrow, use a card other than their own, or alter a Cougar Card are subject to disciplinary action; in addition, such activity may be considered a crime. 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 Web site at www.siu.edu/COUGARCARD.

Textbook Service

For a nominal rental fee, **the University**, supplies basic texts for undergraduate courses (including 400-level courses) through Textbook Service. An SIUE student ID is required, and the student must be enrolled to rent textbooks. Supplemental texts sometimes are required for undergraduate courses; they may be purchased from the University Bookstore, on the first floor of Morris University Center. The **B**ookstore also provides texts for graduate courses.

Textbook Service regular business hours are 8 a.m. to 6:30 p.m. on Monday, and 8 a.m. to 4:30 p.m. Tuesday

through Friday. Textbook Service has expanded hours of service 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 site at www.siu.edu/MUC/textbooks.html.

Textbook Service has a discount sale during the last three weeks of each semester. Textbooks may be discounted 20–40%. The discount period is intended to encourage students to develop their own personal libraries.

Students dropping classes or withdrawing from all classes must return their texts immediately to avoid penalties. Textbooks may be returned early if they are no longer needed. At the end of each semester, textbooks must be returned to Textbook Service by 4:30 p.m. on Tuesday following **finals** week. The entire replacement cost of unreturned books will be charged to the student's account.

University Mail Services

Post Office - SIUE operates a branch post office located on the lower level of Rendleman Hall, Room 0232. Hours are 7:30 a.m. – 4:00 p.m., Monday–Friday. Cash only – no checks, debit or credit cards are accepted. For more information, call (618) 650-2028 or admin.siu.edu/postal.

Student Mail Box Center - Currently enrolled SIUE students can rent locked mail boxes either by semester or by year. The boxes are located on the lower level of Rendlemen Hall, adjacent to Room 0232. For more information, call (618) 650-2028 or admin.siu.edu/postal and click on Mail Box Services.

University Museum/Gallery

It was the intention of the founders of this university that works of art should be a part of everyone's daily experience on campus and it is a goal of the Museum to make this dream a reality. 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 on the second floor of Lovejoy Library in the southeast corner and in the basement hallway of Alumni Hall.

In addition to the objects presented throughout the campus, the Museum, in cooperation with Morris University Center, presents an annual series of temporary exhibitions in the art gallery on the second floor of the center. 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.

University Police

Southern Illinois University Edwardsville Police are committed to providing a safe and secure environment for students, employees, and visitors, and to enforce fully 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 24 hours a day, 365 days a year. The non-emergency telephone number for University Police is (618) 650-3324. Emergency 911 calls are directed to University Police, which is responsible for dispatching appropriate police, fire, or ambulance services. Other services provided include assistance in retrieving keys from locked vehicles, providing jump-starts to inoperable vehicles, and tools to engrave items for prevention of theft. The University Police also provide a safety escort service, accompanying members of the University community from one campus location to another.

The 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 bike patrols, foot patrols, and vehicular means.

In compliance with federal law, entitled the "Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act," the SIUE annual security report containing safety and security information and crime statistics for the past three calendar years is available online at admin.siue.edu/studentrightto.

SIUE is committed to crime prevention, law enforcement, and crime reporting. 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: 650-3324; Emergency: 911

Veterans Certification

The Office of Veterans Certification is located in Rendleman Hall, room 1207. The office provides general information regarding veterans' benefits and VA regulations. Questions about the Illinois Veterans Grant should be directed to the Office of Student Financial Aid.

Non-Traditional Credit Programs and Services

SIUE/SWIC Service Office

The SIUE/SWIC Service Office at Southwestern Illinois College is open weekdays and some evenings and weekends, and offers residents in the Belleville and O'Fallon area a wide range of services including information about University programs, periodic on-site academic advisement, extended office hours during registration, liaison 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, e-mail coned@siue.edu, or see the Web site, www.siue.edu/CE.

Off-Campus RN to BSN Program

SIUE's School of Nursing offers its bachelor of science in nursing RN to BS program off campus via Web-based instruction.

The off-campus RN to BS program allows registered nurses in several areas in southern Illinois to complete the bachelor's degree in nursing close to home while remaining employed. For information about academic requirements or admission to the program, contact the School of Nursing adviser at (618) 650-3956 or 800-234-4844; www.siue.edu/nursing.

Off-Campus Classes

Selected credit courses and degree programs, identical to on-campus programs in academic content and degree requirements, are offered at various off-campus locations. Numerous University credit courses also are offered at off-campus sites in response to specific requests in order to meet particular educational needs in various communities. Recent class offerings have included business, education and nursing. Sites used have included local schools, community colleges, and government facilities.

The Office of Continuing Education provides support services to departments offering classes at off-campus locations and helps students who participate in off-campus classes. Staff from the Office of Continuing Education attend opening classes to help students with admission, registration, fee payment and financial aid inquiries. Faculty and students may contact this office for

help with matters related to off-campus classes. Continuing Education serves as a liaison between off-campus students and on-campus University offices, personally pursuing answers or solutions to students questions or problems and following up directly with students by telephone and e-mail.

Institutions, agencies, or organizations interested in off-campus courses should contact the Coordinator of Credit Activities in the Office of Continuing Education, Campus Box 1084, Southern Illinois University Edwardsville, Edwardsville, IL 62026-1084, phone (618) 650-3210, or e-mail coned@siue.edu. Information also may be viewed at www.siue.edu/CE.

On-Line Courses

For information about web-based courses at SIUE, visit the Illinois Virtual Campus web page at www.ivec.illinois.edu. You may also search for web courses on-line via the SIUE class schedule at www.siue.edu/COUGARNET.

Graduate School

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. Twenty percent of the students at the University are enrolled graduate programs and specializations. More than 70 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 www.siu.edu/graduate.

Master of Arts

- 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
- Speech Communication
- Teaching

Master of Business Administration

- Business Administration
- Business Administration/Management Information Systems

Master of Fine Arts

- Art/Art Studio

Master of Marketing Research

Master of Music

- Music/Music Education
- Music/Music Performance

Master of Public Administration

Master of Science

- Biological Sciences
- Biotechnology Management
- Chemistry
- Civil Engineering
- Computer Management and Information Systems
- Computer Science
- Economics and Finance
- Electrical Engineering
- Environmental Sciences
- Environmental Science Management
- Geographical Studies
- Literacy Education
- Mass Communications
- Mathematics
- Mechanical Engineering
- Nursing/Family Nurse Practitioner

- Nursing/Health Care and Nursing Administration
- Nursing/Nurse Anesthesia
- Nursing/Nurse Educator
- Physics
- Psychology/Clinical Child and School
- Speech Language Pathology

Master of Science in Accountancy

- Accountancy
- Accountancy/Taxation

Master of Science in Education

- Educational Administration
- Elementary Education
- Instructional Technology
- Kinesiology
- Learning, Culture and Society
- Secondary Education with teaching fields in:
 - Art
 - Biology
 - Chemistry
 - Earth and Space Science
 - English/Language Arts
 - Foreign Languages
 - History
 - Mathematics
 - Physics
 - Special Education

Master of Social Work

Specialist Degrees

- Educational Administration
- School Psychology

Post-Master's Certificates

- Nursing/Nurse Anesthesia
- Nursing/Family Nurse Practitioner
- Nursing/Health Care and Nursing Administration
- Nursing/Nurse Educator

Post-Baccalaureate Certificates

- Art Therapy Counseling
- English/American and English Literature
- English/Teaching English as a Second Language
- English/Teaching of Writing
- History/Museum Studies
- Instructional Technology/Web-Based Learning
- Kinesiology/Exercise Physiology
- Kinesiology/Pedagogy/Administration
- Kinesiology/Sports and Exercise Behavior
- Mass Communications/Media Literacy
- Speech Communication/Corporate & Organizational Communication

Cooperative Doctoral Programs

(Degree conferred by Southern Illinois University Carbondale)

- Doctor of Philosophy degree in Educational Administration
- Doctor of Philosophy degree in Engineering Science
- Doctor of Philosophy degree in History

SIU School of Dental Medicine

The SIU School of Dental Medicine in Alton, Illinois, offers a four-year academic program that awards the doctor of dental medicine (DMD) degree. The mission of Southern Illinois University School of Dental Medicine is to improve the oral health of Southern Illinois and the region through education, patient care, scholarship and service. In addition to classroom, clinical, and research facilities, the school has scanning and transmission electron microscopy facilities and other sophisticated equipment with which to conduct biomedical research. Patient care is provided in state-of-the-art clinical facilities at the Alton campus, the East St. Louis Center and the Dental Implant Clinic in University Park.

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 around the biomedical sciences such as anatomy, microbiology, physiology and pathology, and preclinical dental sciences such as 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 the Dental Implant Clinic in University Park. The program includes experiences with special patient populations, patient care in the hospital setting, and training in the newest techniques in dental implants.

The School of Dental Medicine 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 and the Dental Implant Clinic in University Park. Clinical, teaching and research experiences are emphasized throughout the program.

Additional advanced dental education opportunities include master of science programs in endodontics and

periodontology granted 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.

Admission to the doctor of dental medicine (DMD) program is based on completion of specific undergraduate academic requirements, satisfactory achievement on the Dental Aptitude Test, and successful review of the students' credentials by the school's admissions committee on a competitive basis. Students admitted to the School of Dental Medicine at the end of their junior year at SIUE may transfer appropriate credits to complete 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.

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 continues to meet or exceed the conditions of the three-year pre-professional program.

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, or

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 who are 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 and 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.

Continuing Education Courses

Each year, the ERTC presents about 40 continuing education courses. These courses have an average annual enrollment of about 800 operators and managers of drinking water and wastewater treatment systems and licensed plumbers for cross connection control training. Each year, about 240 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 offered 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 siue-ertc@siue.edu.

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.

Water Quality Control Operations Certificate Program

The ERTC Water Quality Control Operations program is a one-year, 35-40 hours-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.

More than 380 persons have graduated from this program since it began in 1981. Approximately 90% of those graduates have obtained employment in the drinking water and/or wastewater treatment systems field. About 61% of the employed graduates work in Illinois; the rest work in 16 other states. Of those employed in other states, about 75% work in the St. Louis area.

Admission and Retention

ERTC considers individual potential when granting admission to the program. ERTC prefers to admit only high school graduates or persons who have a G.E.D. certificate. However, ERTC does make provision for admission of students, 18 or older, who are not high school graduates.

ERTC requires that the 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 scale of 4.00) grade point average to be retained in the program, or to be eligible for an internship.

Class Enrollment

Enrollment is limited to 35 students per academic year. Entry into the program is in the fall semester only.

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 Career Program Coordinator, Environmental Resources Training Center, Box 1075, SIUE, Edwardsville, IL 62026-1075, by telephone at

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 an actual public water supply and/or wastewater treatment system. The courses taken each term are as follows:

Fall Semester	Lect.	Lab	Total
ERTC 101 Wastewater Operations I	4	4	8
ERTC 102 Water Supply Operations I	4	4	8
ERTC 103 Water Quality Laboratory I	2	6	8
ERTC 105 Mechanical Maintenance	3	4	7
ERTC 106 Water Quality Math and Science	4	0	4
	17	18	35
Spring Semester	Lect.	Lab	Total
ERTC 201 Wastewater Operations II	4	4	8
ERTC 202 Water Supply Operations II	4	4	8
ERTC 203 Water Quality Laboratory II	2	4	6
ERTC 205 Electrical/Instrumentation Maint	2	4	6
ERTC 207 Water Quality Communications	1	1	2
ERTC 208 System Maintenance	2	3	5
	15	20	35
Summer Semester			
ERTC 300 Supervised Work Study 40 hours per week for 10 weeks			

Courses

ERTC 101 Wastewater Operations I

An 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

This is a 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.

ERTC 105 Mechanical Maintenance

An 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

A 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.

ERTC 202 Water Supply Operations II

Ground water 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

A 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.

ERTC 205 Electrical/Instrumentation Maintenance

An introduction is provided 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.

ERTC 207 Water Quality Communications

An 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

An introduction is provided 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.

Non-Credit Programs and Services

Office of Continuing Education

The Office of Continuing Education 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.

For more information about the noncredit programs and services described below, write to the Office of Continuing Education, Campus Box 1084, SIUE, Edwardsville, IL 62026-1084, call (618) 650-3210, or e-mail coned@siue.edu. Information also may be viewed online at www.siue.edu/CE.

Conferences and Institutes

The Conferences and Institutes unit of the Office of Continuing Education provides specialized program planning services and meeting 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, and special events. For more information, call Conferences and Institutes at (618) 650-2660, or e-mail tengelm@siue.edu.

Continuing Education Units

Continuing education units (CEUs) reflect participation in approved Continuing Education activities. The Office of Continuing Education 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, write to the Office of Continuing Education, Campus Box 1084, SIUE, Edwardsville, IL 62026-1084 or call (618) 650-3210, or e-mail coned@siue.edu.

Continuing Professional Education (Accounting)

The Office of Continuing Education 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, write to the Office of Continuing Education, Campus Box 1084, SIUE, Edwardsville, IL 62026-1084 or call (618) 650-3210, or e-mail coned@siue.edu.

Educard

Educard is a program that enables persons not enrolled at SIUE to attend selected credit 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 Continuing Education at (618) 650-3210, or e-mail coned@siue.edu. A complete listing of credit courses approved for EDUCARD can be found at www.siue.edu/CE.

Leisure Learning Activities

A wide variety of leisure learning activities are offered for leisure enjoyment and personal development. Leisure

learning activities include dance, fitness, language, and special-interest areas. To receive a schedule of leisure learning activities or to register for leisure learning activities, contact the Office of Continuing Education at (618) 650-3210, or e-mail coned@siue.edu. A full listing of leisure learning activities can be viewed at www.siue.edu/CE.

Lifelong Learning Activities

The Office of Continuing Education sponsors a variety of activities for older adults. These include the Great Decisions lectures, and Dialogue for Senior Citizens. For details about these activities, contact the Office of Continuing Education at (618) 650-3210 or e-mail coned@siue.edu. Additional University activities for older adults are sponsored by the Gerontology Program, (618) 650-3454. A complete listing of lifelong learning activities can be found at www.siue.edu/CE.

Community Services

Arts & Issues

Arts & Issues is a series of distinguished speakers and performers that supports the academic mission of the University. Students meet and discuss issues with renowned performers and speakers in workshops, dinners, receptions and classes. Arts & Issues also gives students opportunities to gain experience in special events production and administration.

Entrepreneurship Center

The Entrepreneurship Center is part of a statewide effort to build a more vibrant economy and create new job opportunities in Illinois. The Entrepreneurship Center serves as an umbrella organization to facilitate the interaction between entrepreneurs and existing resources. The Center helps businesses connect with resources and funding, patents and products, money and markets. The Center also provides customized marketing strategies that drive product growth. The Center works to promote an entrepreneurial culture throughout the Southwestern Illinois region. In addition, the Center utilizes students to assist entrepreneurs in

developing their business.

The Center also helps individual entrepreneurs and small businesses obtain professional services for comprehensive business planning assistance, the evaluation of a proposed start up or expansion, or other accelerated support purposes. The Center has funds available to businesses for these services.

International Trade Center

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 sales, 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 University resources and services. Interested parties should contact the International Trade Center at (618) 650-2452, (618) 650-3851, international-trade-center@siue.edu, or via internet at www.siue.edu/ITC.

Labor and Management Programs (LAMP)

Labor and Management Programs (LAMP) promote labor and management cooperation in southwestern Illinois. It provides a variety of services to the labor management community. 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
- Conducting opinion/attitude surveys
- 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) 650-2681 or e-mail mfinkel@siue.edu, and the SIUE Problem Solving Center at (618) 650-3767.

Small Business Development Center

The Illinois Small Business Development Center at SIUE is part of a national consortium of college- and university-affiliated small business development centers that assist small businesses. With offices both at Edwardsville and East St. Louis, the center is a collaborative arrangement between the U.S. Small Business Administration, the Illinois Department of Commerce and Economic Opportunity, and the SIUE School of Business.

The center provides a full range of services and programs for start-ups, expanding and existing businesses. Owners and managers of small businesses, as well as individuals wanting to start or purchase a business or franchise, are potential clients. Services provided include business seminars and entrepreneurial training courses, confidential counseling, general business planning assistance, and capital sourcing. Individuals and businesses interested in these services may contact the center at (618) 650-2929. Counseling is free, but there are fees associated with training courses and seminars.

WSIE Radio Station

WSIE-FM is a 50,000-watt public radio station operated by Southern Illinois University Edwardsville. Broadcasting continuously at 88.7 FM from studios and offices in Dunham Hall, WSIE provides a quality non-commercial broadcast service to southwest Illinois and St. Louis. WSIE-FM is staffed by five full-time professionals and student volunteers and employees. Students receive practical training in all areas of radio broadcasting. WSIE-FM specializes in jazz music, with local news and sports reports and public affairs programming. The station is affiliated with National Public Radio, Public Radio International, the Associated Press and Illinois Public Radio. For information, please call (618) 650-2228.

East St. Louis Center

As part of the University'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 masters' programs by supporting clinical and practicum experiences. The center assigns first priority to encouraging, supporting, and improving the educational success of the residents of East

St. Louis and surrounding urban communities. The center provides comprehensive programs, services and training in the areas of 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 preschool-age children's needs. The center also encourages and assists 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 located 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. And finally, the campus houses the Small Business Development Center, supported by the SIUE School of Business.

Dental Clinic — The School of Dental Medicine maintains clinics in Alton, Edwardsville, and East St. Louis. The community dental clinic in East St. Louis provides a wide range of dental treatment. Senior students in the School of Dental Medicine and residents in the Advanced Education General Dentistry Program provide dental care. Persons interested in care at the East St. Louis community dental clinic may call (618) 482-6980 between 8 a.m. and 4:30 p.m. Monday through Friday. Patient treatment generally is available 9 a.m. to 4:30 p.m. daily. Persons interested in care at the Alton clinic may call (618) 474-7000 between 8 a.m. and 4:30 p.m. Monday through Friday. Patient treatment is available 9 a.m. to 5 p.m. Monday through Friday.

Community Nursing Services, a nurse-managed health care facility sponsored by the SIUE School of Nursing, provides comprehensive nursing services to promote, maintain, and restore the physical, emotional, and social well-being of its clients. The professional nursing staff is committed to improving the health of the community and its residents by:

- providing quality health services;
- serving as consultants to local agencies and health care providers in the areas of health education, health care delivery, and health care management;
- working with residents, health care providers, and agencies to identify and develop plans to meet the health of local communities;
- participating in the education of students in professional nursing and other health careers.

Services offered by Community Nursing Services include:

- providing school, sports, and employment physical examinations.
- providing immunizations.
- conducting health screenings, including blood sugar, cholesterol, lead, hearing, and vision.
- evaluating and managing acute minor illnesses.
- assisting clients with chronic illnesses such as hypertension, obesity, diabetes, and asthma.
- educating individuals and families about normal growth and development, health practices, safety, and nutrition.
- referring individuals and families to other health professionals or community agencies.

In addition to providing services in the clinic office on the campus of the East St. Louis Higher Education Center, Community Nursing Services provides services at schools, day care centers, Head Starts, child development centers, senior citizen centers, homes, community centers, and churches. Nursing students enrolled in the SIUE School of Nursing gain invaluable experience by working under the supervision of the Community Nursing Services staff. Office hours are 9 a.m.–5 p.m. Monday through Friday. For more information about Community Nursing Services, call (618) 482-6959.

The Optometry Clinic, a cooperative arrangement between SIUE and the University of Missouri-St. Louis, provides services from the East St. Louis Higher Education Campus location. As with the Dental Clinic and Community Nursing Services, the Optometry Clinic provides a full range of preventive and corrective eye-care services for persons in metropolitan East St. Louis to include St. Louis. Frames and lenses also are available at the Clinic. More information is available at (618) 482-8355.

The SIUE Small Business Development Center in East St. Louis is designed to deliver up-to-date counseling, training and technical assistance in all aspects of small business management throughout the 12 counties surrounding the Edwardsville Campus. SBDC services include, but are not limited to, assisting small businesses with financial, marketing, production, organization, engineering and technical problems, and feasibility studies.

The SBDC also makes special efforts to reach socially and economically disadvantaged groups, veterans, women and the disabled.

Early Head Start and Head Start, which are national programs, provide comprehensive child development services for more than 1,600 pre-school children and their families in St. Clair County.

Upward Bound EC and Upward Bound BEMV are college-preparatory programs for high school students (grades 9-12). Each program's purpose is to enhance the likelihood of participants' success in high school and post-secondary education programs. Through the two programs, 215 students from the East St. Louis (including the East St. Louis Charter High School), Cahokia, Brooklyn/Lovejoy and Madison school districts receive comprehensive academic and educational support services. In both programs, participants receive enrichment through classroom, tutorial, and counseling sessions and through educational and career-awareness workshops. The programs operate Monday through Thursday evenings after school and two Saturdays each month during the school year. A six-week summer component is also part of each program.

The Upward Bound Mathematics and Science Center serves 52 students from the East St. Louis, Cahokia, and Lovejoy school districts by providing a comprehensive enrichment program designed to enhance home-school academic performance in mathematics, science, English, foreign language, and computer courses.

Talent Search EB and Talent Search CM provide educational services, financial aid awareness and career exploration to 1200 area middle and high school students grades 6-12. A summer enrichment program, academic advising, and tutorial services are also available. The program provides services to students enrolled in the East St. Louis, Cahokia, Brooklyn, and Venice, Illinois school districts.

The East St. Louis Center for the Performing Arts encourages youth and adults (pre-schoolers through senior citizens) of southwestern Illinois to develop aesthetic values and performance skills by participating in noncredit community arts classes in the local elementary schools and at the East St. Louis Center. Members of the performing arts center teaching staff conduct a full complement of community arts dance and theater classes. Performing arts staff members also help to implement fine arts credit-producing classes to students in the center's charter high school.

Two summer camp sessions emphasizing dance and theater are held at the center each summer for school-age

youth. Participants both in the academic-year program and in summer camps demonstrate their artistic training through end-of-the-term performances. A natural product of the community arts effort for youth has been the evolution of youth dance and theater performing companies; both of which have distinguished themselves locally, regionally, and nationally.

Project Success provides after-school tutoring, health and hygiene training, cultural arts exposure, and a variety of regularly scheduled recreational activities for 100 protected youth whose ages range from 6-13.

Latchkey Program provides after-school child care services in the schools for 90 children ages 6-12 whose parents work or are enrolled full time in school.

The SIUE East St. Louis Charter School is a "School of Choice" for students ages 14-19 in the East St. Louis School District boundary. The school was established to provide a choice in public education to 100 students and parents and to provide a second chance at education and training for persons who have dropped out of the East St. Louis public schools. The school incorporates a performing arts component to enhance the overall educational program and the core curriculum in science, mathematics, language arts, social studies and computer science.

The Educational Opportunity Center identifies, encourages, and assists clients age 19 and older to pursue post-secondary education by providing career, admission, and financial aid counseling.

The Computer Laboratories serve as computer science instructional sites for the center's programs, clients and staff.

Distance Learning Classrooms, through remote-site television, allow for the exchange of academic courses and information between institutions.

Community Involvement — The University, through its East St. Louis Center, is very active in community affairs in the city and surrounding communities. Center faculty and staff render many hours of service through membership on highly significant public and private sector boards, commissions, and committees. Faculty and staff provide an important communication link between the University and various national, state, and local agencies.

For more information about all East St. Louis Center programs and activities, call (618) 482-6913.

University Policies

Equal Opportunity and Affirmative Action

Southern Illinois University Edwardsville is committed to equal opportunity and affirmative action. SIUE administers its academic programs and employment practices without regard to age, color, disability, ethnicity, marital status, national origin, race, religion, sex, sex orientation or veteran status or other categories prohibited by law. In addition, it is the policy of SIUE to make reasonable efforts to accommodate qualified individuals with disabilities.

The University complies in letter and spirit with appropriate federal and state equal opportunity requirements including, Titles VI and VII of the Civil Rights Act of 1964, Executive Order 11246, Title IX of the Education Amendments Act of 1972, the Americans with Disabilities Act of 1990, and the Illinois Human Rights Act.

SIUE students, faculty, staff and others having inquiries regarding equal opportunity and affirmative action should contact the Director of the Office of Institutional Compliance, Room 3310, Rendleman Hall, SIUE Campus, Box 1025, Edwardsville, IL, 62026-1025.

Fair Practice

Southern Illinois University Edwardsville 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 regarding 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 Institutional Compliance, Room 3310, Rendleman Hall, SIUE Campus, Box 1025, Edwardsville, IL, 62026-1025.

Right to Privacy and Nondisclosure

Under the Family Educational Rights and Privacy Act of 1974, all students have the right to inspect and review their official University records in accordance with provisions of the aforementioned act and within University guidelines. Inquiries regarding the Family Educational Rights and

Privacy Act should be directed to the Office of the Registrar.

In addition, the University, through the Registrar and the Office of the Vice Chancellor for Student Affairs, may make accessible to any person "directory information" concerning students. Directory information consists of the following: name, local address and phone number, hometown address and phone number, e-mail address, date of birth, major field of study, classification, current enrollment status and hours, participation in officially recognized sports, weight or height of members of athletic teams, full-time or part-time status, dates of attendance at SIUE, degrees or awards received, and the most recent previous educational agency or institution attended.

Students have the right to "opt out" of releasing directory information. In cases in which students have filed timely written notice that they object to the release of "directory information," the information will not be released to any person except University personnel who, because of their educational function or research, have a legitimate need for access, or to others as required or permitted by law. The notification must be in the form of a letter to the registrar or by completion of a directory information release action request form. Such objection must be filed as directed by the notice published in The Alestle at the beginning of the academic term in which it is to be effective and, once effective, it remains so until a written cancellation is filed with the Registrar.

Further, in accordance with the Privacy Act of 1974, applicants and students are advised that the requested disclosure of their social security number is voluntary. Students applying for Pell Grants or Guaranteed Student Loans are required to provide their Social Security numbers to the appropriate federal agencies; students applying for other Title IV federal student aid programs also are requested to submit their Social Security numbers. Social Security numbers may be used to determine eligibility for financial assistance, student status and prior school attendance.

Student Right to Know

The SIUE Annual Security Report containing safety and security information and crime statistics for the past three calendar years is available online at admin.siu.edu/studentrightto/. This report is published in compliance

with federal law, titled the “Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act.” For those without computer access, a paper copy of the report may be obtained from: Office of the Vice Chancellor for Administration, Rendleman Hall, Room 2228, 618-650-2536. Also, SIUE institutional information, financial assistance information, completion and graduation rates, and athletics information are available online at www.siu.edu/consumer. For those without computer access, a paper copy of the report may be obtained from: Office of the Vice Chancellor for Enrollment Management, Campus Box 1080, Rendleman Hall, Room 1309, 618-650-2080.

Student Social Conduct, Student Academic Conduct, Student Grievance

Students enrolling in the University assume responsibility for conduct compatible with the learning environment of the University. Students are expected to be familiar with the Student Social Conduct Code, 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 relative to academic ethics and plagiarism should consult their advisers 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.

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.

A 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. Moreover, the student may file a grievance pursuant to the Student Grievance Code. The code is posted on the SIUE Web site at www.siu.edu/POLICIES/3c3.html.

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.

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.

SIUE Alcohol Notification and Violence Disclosure Protocol

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 or been found guilty of a crime of violence where the records directly relate to such misconduct.

Recognizing that disclosure is permissive rather than compulsory, Southern Illinois University Edwardsville 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 in the following circumstances:

- in cases of repeated violations of campus disciplinary rules regarding the use or possession of alcohol or a

controlled substance;

- in cases of major violations of University disciplinary rules regarding alcohol or controlled substances which result in the student being placed on disciplinary probation or suspension.

Exception

Students under the age of 21 years found responsible for minor first-time infractions of campus disciplinary rules relating to the use or possession of alcohol or controlled substances will be notified that any future infraction will result in the notification of their parents or legal guardian. At the discretion of the Vice Chancellor for Student Affairs or his designee, however, a parent may be notified of a student's first-time infraction depending on the nature and circumstances surrounding the student's violation of University disciplinary rules.

Notification of Students Involved in Violent Crime

With respect to violent crime, Southern Illinois University Edwardsville will, upon appropriate request and a final disposition of the judicial process, release the name, violation committed, and sanction imposed of those students found guilty of a crime of violence. Students found responsible for such violations of the Student Code of Conduct which are considered "crimes of violence" as defined within the Act [20 U.S.C §1232g(i)], will be notified of the University's policy regarding the release of this information at the time the sanctions are imposed.

Illinois Computer Crime Prevention Law

All persons using computing facilities are notified that the Illinois Computer Crime Prevention Law (720 ILCS 5/16D-I et. seq.) makes unauthorized computer use a criminal offense.

There are three offense categories defined by the law.

- 1 **Computer Tampering.** An individual may be prosecuted for this offense when access is gained to a computer, a program, or data, without permission from the owner. Unauthorized access, by itself, is a misdemeanor. Obtaining data or services is a misdemeanor for the first offense and a felony for subsequent offenses. Altering, damaging, destroying, or removing a computer, a

program, or data, is a felony. (These latter offenses include the use or attempted use of a computer virus.)

- 2 **Aggravated Computer Tampering.** This offense occurs when computer tampering has the intended effect of:
 - a. disrupting or interfering with vital services or operations of State or local government or a public utility, or
 - b. creating a strong probability of death or great bodily harm to other individuals. These offenses are punishable as felonies.
- 3 **Computer Fraud.** This offense occurs when access to or use of a computer, program or data is gained as part of a scheme to deceive or defraud. This includes the use of a computer to gain control over money, services or property. In addition to its ordinary meaning, "property" in this context includes: electronic impulses, electronically produced data, confidential or copyrighted material, billing information, and software in any form. These offenses are punishable as felonies.

A copy of the Computer Crime Prevention Law is available for examination in the Office of Information Technology or in the Office of the General Counsel. The Board of Trustees' "Electronic Information Systems Privacy Issues and Statement of Ethics" can be found at http://www.siu.edu/bot/botlegis/public_html/policies/chapter5j.html

University Facilities

The buildings on the central campus of the University, arranged around the William J. Stratton Quadrangle, are convenient to one another. Designed as an integral unit, all have common architectural features—courts, terraces, balconies—but each is designed for specific uses.

Art and Design Building

The Art and Design Building houses ultra-modern facilities for studio arts including sculpture, ceramics, jewelry, glassblowing, printmaking, painting, drawing, design, weaving, papermaking, graphic design and computer graphics, imaging and animation. A central atrium lobby features contemporary gallery and exhibition spaces, department offices, and an art supply store.

Biotechnology Laboratory Incubator

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. The teaching labs can accommodate up to 24 students in each lab.

Birger Hall

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 long-time supporter of SIUE.

Bluff Hall, Evergreen Hall, Prairie Hall and Woodland Hall

The four residence halls on campus are designed to house 500 students each. Student residential areas are designed in clusters with two student rooms sharing a common bath. The facilities include an open access computer laboratory, study areas, meeting rooms, laundry facilities, recreational and activity space. Prairie and Woodland Halls are located south of the central academic core, Bluff Hall is west of the Engineering Building and Evergreen Hall is at the corner of Circle Drive and Whiteside Road.

Cougar Village

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.

Dunham Hall

Named after the famed dancer 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. The glass front of this building wraps around the two-story lobby of the University Theater, where television cameras have filmed student and faculty productions. The University's central computer installation and Information Technology offices also are housed here.

Engineering Building

The Engineering Building, which opened in fall 2000, houses classrooms, instructional and research laboratories, and faculty and staff offices for the School of Engineering programs in civil, computer, electrical, industrial, manufacturing and mechanical engineering, computer science and construction.

Early Childhood Center

The Early Childhood Center is on the northwestern edge of the central academic core of campus. It is designed to provide early childhood education for the pre-school children of members of the SIUE community.

Founders Hall and Alumni Hall

Founders Hall and Alumni Hall are north of Peck Hall. The two 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 contain lecture halls, instructional laboratories, and conference rooms.

Lovejoy Library

The Lovejoy Library building houses most of the University's print, microform, audio visual and online materials and features extensive study areas for patrons. A small auditorium, used for musical performances, movies and lectures, is on the lower level.

Metcalf Student Experimental Theater

This facility, named for SIUE former budget director James F. Metcalf, is just northwest of the main core. It Education, University Housing Contract Office and Parking Services.

Health Service, Fast Copy, and a branch of the United States Postal Service are on the lower level.

includes dressing rooms, storage, and a main stage area with a seating capacity of 200 people.

Morris University Center

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 computers available to everyone, as well as laptop hook-ups for students, faculty, and staff. It also offers newly renovated recreational facilities, including a 16-lane bowling alley, table tennis, billiards room, and a card and game lounge. Other amenities include the University Bookstore, a convenience store, barber and beauty shop, ATM, conference rooms, and an art gallery. Dances, movies, various entertainment programs, and other functions are held in the ballroom.

Peck Hall

The first building opened on campus is named for John Mason Peck, an early pioneer and educator in this region. Peck founded Shurtleff College in Alton, Illinois—the first college in Illinois and now the site of the School of Dental Medicine. Peck Hall is home for the College of Arts and Sciences, the Anthropology Teaching Museum, the Communication Laboratory, a micro computer laboratory, and laboratories for foreign language instruction. The offices of Academic Counseling and Advising, Instructional Services, and the Special Services Program are also located in this building. Two of the wings, opening from a center court, are used for classrooms; the third is used for faculty offices.

Pharmacy Building

The School of Pharmacy, located in new facilities in SIUE's University Park, incorporates technologically advanced classrooms, a new Drug Information and Wellness Center, and pharmacy teaching and research laboratories in its innovative and contemporary curriculum. These modern facilities provide an outstanding home for our Doctor of Pharmacy program.

Religious Center

Just southwest of the academic core, a visually arresting geodesic dome structure designed by R. Buckminster Fuller houses the interdenominational Religious Center. The center was funded with private donations.

Rendleman Hall

The administration building, named for the University's first President, John S. Rendleman, houses offices of the Chancellor, the Provost and Vice Chancellor for Academic Affairs, the Vice Chancellor for Administration and Vice Chancellor for Student Affairs, Admissions, the Service Center, the Office of the Registrar, the Bursar, Student Financial Aid, Continuing

Science Building

Sciences laboratories for research and instruction in biology, chemistry, physics, and mathematics, and academic computer facilities are located in the Science Building.

Student Fitness Center

The Student Fitness Center was opened for use in the spring of 1993 and expanded in 1999. The facility, which is totally dedicated to student recreational use, includes four multipurpose courts, a rock-climbing gym, an elevated jogging track, weight training room facilities, an aerobics room, and a wellness center designed to provide health and fitness assessment and programming.

Vadalabene Center

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 sports, both intramural and intercollegiate, is located on the north edge of the central academic core. It houses a swimming pool, racquetball courts, a 33,000-sq.-ft. multipurpose room, locker/shower facilities, and rooms for gymnastics, dance, combat, and weight-lifting sports, laboratories, classrooms, and offices for the Athletics staff and the Department of Kinesiology and Health Education.

Other Facilities

Additional facilities such as the Counseling Center, the Supporting Services Building, 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 located away from the academic core.

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2009
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2008
2008

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Narbeth Emmanuel, Vice Chancellor for Student Affairs

SIUE Faculty

Abusharbain, Elaine, Biological Sciences, Ph.D., 1992, Southern Illinois University Carbondale

Acheson, Gillian, Geography, Ph.D., 2003, Texas A&M University

Afolayan, Michael O., Foreign Language & Literature, Ph.D., 1994, University of Wisconsin–Madison

Agustin, Marcus A., Mathematics and Statistics, Ph.D., 1997, Bowling Green State University

Agustin, Zenia N., Mathematics and Statistics, Ph.D., 1997, Bowling Green State University

Alexander, Alicia L., Speech Communication, Ph.D., 2004, University of Texas at Austin

Alkin, Oktay, Electrical Engineering, Ph.D., 1986, University of Alabama

Anderson, Jill, English Language and Literature, Ph.D., 2006, Michigan State University

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Auffarth, Jean, Nursing

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University of Hawaii

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Barthelme, Shirley, Nursing

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Behm, Kathlyn Faye, Lovejoy Library, M.L.S.,
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Bell, John, Music, Ed.D., 1986, University of Illinois

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Berger, Charles, English Language and Literature,
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Bergeron, Bette, Curriculum and Instruction, Ph.D.,
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Bolander, Jennifer, Curriculum and Instruction,
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Bordoloi, Bijoy, Computer Management and
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Bouman, Sandra, Music, M.F.A., 1971, Penn State
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University of Tennessee

Beck, Susan E., Curriculum and Instruction, Ph.D.,
1994, University of Kansas

Brown, Steven C., Art and Design, M.F.A., 1994,
University of Delaware

Brown, Venessa, Social Work, Ph.D., 1994, Clark
Atlanta University

Brugam, Richard B., Biological Sciences, Ph.D.,
1975, Yale University

Brunkow, Paul E., Biological Sciences, Ph.D., 1996,
Arizona State University

Bueno, Julian L., Foreign Languages and Literature,
Ph.D., 1979, Texas Technical University

Bueno, Kathleen A., Foreign Languages and
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Bukalski, Peter J., Mass Communications, Theater
and Dance, Ph.D., 1975, Ohio State University

Burger, Paul R., Geography, Ed.D., 1997,
Oklahoma State University

Burt, Tammy, Kinesiology and Health Education,
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Stone, Lucian W., Philosophy, Ph.D., 2005, Southern Illinois University Carbondale

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Taylor, Dennis, Art and Design, Ph.D., 1998, Syracuse University

Taylor, John A., Historical Studies, Ph.D., 1972, University of Chicago

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Van Roekel, Jacob H., Industrial and Manufacturing Engineering, M.S.I.E., Industrial Engineering, 1968, Purdue University

VanCleave, Jeffrey T., Speech Communication, Ph.D., 2005, University of Kansas

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Virgo, John M., Management, Ph.D., 1972, Claremont Graduate School

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Vogler, Edwin William, Kinesiology and Health Education Ed.D., 1980, University of Utah

Vogrin, Valeria A., English Language and Literature, M.F.A., 1991, University of Alabama

Voller, Jack G., English Language and Literature, Ph.D., 1987, University of California, San Diego

Voss, Kimberly, Mass Communications, Ph.D., 2004, University of Maryland – College Park

Voss, Eric J., Chemistry, Ph.D., 1992, Northwestern University

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Waxman, Bernard, Computer Science, D.Sc., 1989, Washington University

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Weinberg, Jerry B., Computer Science, Ph.D., 1996, Vanderbilt University

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Welch, Lisa C., Sociology and Criminal Justice Studies, Ph.D., 2004, Brown University

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Wesley, Carol A., Social Work, Ph.D., 1987, Saint Louis University

Weyhaupt, Adam, Mathematics and Statistics, Ph.D., 2006, Indiana University-Bloomington

White, Kim, Family Health and Community Health, Ph.D., 2005, Barry University

White, William W., Computer Science, Ph.D., 1989, Ohio State University

Wiediger, Susan D., Chemistry, Ph.D., 1998, Rice University

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Wuller, W.R., Pharmacy, M.S., 1999, St. Louis College of Pharmacy

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Yakimo, Richard, Primary Care, Ph.D., 2003, St. Louis University

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Youn, Luis T., Electrical Engineering, Ph.D., 1985, University of Houston

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Yu. Tianlong, Educational Leadership, Ed.D., 2002, State University of New York at Binghamton

Yu, Xudong W., Computer Science, Ph.D., 2000, Vanderbilt University

Zamanou-Erickson, Sofia, Speech Communication, Ph.D., 1988, University of Oregon

Zaytzeff, Veronique, Foreign Languages and Literature, B.A., 1967, University of Paris

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Aschenbrenner, Joyce, Professor Emerita, Ph.D., 1967, University of Minnesota

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Combs, Charles, Professor Emeritus, Ed.D., 1963,

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Comer, James, Professor Emeritus, Ed.D., 1965,
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Feeney, William R., Professor Emeritus, Ph.D.,
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Haas, James, Professor Emeritus, Ph.D., 1960, University of Illinois

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Hanna, Steven J., Professor Emeritus, Ph.D., 1968, Purdue University

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Harrick, Edward J., Professor Emeritus, 1974, Saint Louis University

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Hattemer, Jimmie, Professor Emeritus, Ph.D., 1964, Washington University

Havens, Daniel F., Professor Emeritus, Ph.D., 1965, University of Michigan

Havis, Barbara J., Assistant Professor Emerita, M.Ed., 1966, University of Missouri

Henderson, George A., Professor Emeritus, Ph.D., 1970, Georgetown University

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Paxson, Thomas D. Jr., Professor Emeritus, Ph.D., 1970, University of Rochester

Pearson, Samuel C., Emeritus Dean, Ph.D., 1964, University of Chicago

Perry, Gloria, Professor Emerita, Ph.D., 1974, Saint Louis University

Perry, Richard Kent, Professor Emeritus, D.M.A.,

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Popp, Jerome A., Professor Emeritus, Ph.D., 1966, St. Louis University

Portwood, Shirley J., Historical Studies, Ph.D., 1982, Washington University

Prell, Arthur E., Professor Emeritus, Ph.D., 1956, University of Minnesota

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Sullivan, George M., Professor Emeritus, L.L.M., 1982, New York University

Sultan, Paul E., Professor Emeritus, Ph.D., 1950, Cornell University

Swaine, Richard L., Professor Emeritus, Ph.D., 1971, Washington University

Swamy, Padmanabha N., Professor Emeritus, Ph.D., 1963, Delhi University

Sykes, Roslyn Kelley, Professor Emerita, Ph.D., 1984, Saint Louis University

Taylor, Joyce S., Professor Emerita, Ph.D., 1969, University of Missouri

Thomerson, Jamie E., Professor Emeritus, Ph.D., 1965, Tulane University

Thornton, Charles A., Professor Emeritus, Ph.D., 1970, University of Tennessee

Traxler, Anthony J., Professor Emeritus, Psychology, Ph.D., 1969, Pennsylvania State University

Turner, Charles, Associate Professor Emeritus, Ed.D., 1954, Columbia University

Turner, Sarah T., Professor Emerita, M.A., 1958, Columbia University

Valley, David B., Professor Emeritus, Ph.D., 1972, University of Illinois

Van Syoc, W. Bryce, Professor Emeritus, Ph.D., 1959, University of Michigan

Verderber, Nadine L., Professor Emerita, Ph.D., 1974, Ohio State University

Vilhauer, William W., Professor Emeritus, Ph.D., 1965, University of Iowa

Violette, P. Eugene, Assistant Professor Emeritus, A.B., 1959, Saint Michael's College

Wagner, Robert M., Professor Emeritus, Ph.D., 1971, Saint Louis University

Walker, Betty B., Assistant Professor Emerita, Ph.D., 1986, Saint Louis University

Wallace, Mona Ruddy, Associate Professor Emerita, Ed.D., 1983, University of Missouri, St. Louis

Ward, William G., Professor Emeritus, M.S., 1958, Mankato State College

Warren, Edwin, Professor Emeritus, Ph.D., 1976, University of Michigan

Weber, Joseph A., Professor Emeritus, Ph.D., 1983, Saint Louis University

Weingartner, James J., Professor Emeritus, Ph.D., 1967, University of Wisconsin

Weiss, Stuart L., Professor Emeritus, Ph.D., 1961, University of Chicago

Werner, David J., Professor Emeritus, Ph.D., 1969, Northwestern University

White, J. Edmund, Professor Emeritus, Ph.D., 1958, Indiana University

Whiteside, William, Professor Emeritus, Ph.D., 1969, Southern Illinois University, Carbondale

Wilbraham, Antony C., Professor Emeritus, Ph.D., 1965, Royal Institute of Chemistry

Wiley, W. Deane, Professor Emeritus, Ph.D., 1966, Claremont Graduate School

Williams, Robert A., Professor Emeritus, Ph.D., 1975, Georgia State University

Wilson, Howell K., Professor Emeritus, Ph.D., 1964, University of Minnesota

Winnett, David A., Professor Emeritus, Ed.D., 1988, Southern Illinois University Edwardsville

Wittig, Gertraude C., Professor Emerita, Ph.D., 1955, University – West Germany

Wolf, Robert G., Professor Emeritus, Philosophical Studies, Ph.D., 1970, Saint Louis University

Woods, William I., Professor Emeritus, Ph.D., 1986, University of Wisconsin, Milwaukee

Yarbrough, Ronald E., Professor Emeritus, Ph.D., 1972, University of Tennessee

Zahalsky, Arthur C., Professor Emeritus, Ph.D., 1963, New York University

Zanger, Jules, Professor Emeritus, Ph.D., 1954, Washington University

Ziegler, Robert J., Associate Professor Emeritus, Ph.D., 1972, University of Rochester

Zurheide, Frederick W. IV, Professor Emeritus, M.S., 1959, Southern Illinois University Carbondale

Course Descriptions

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.

[INTRO] Introductory Course

[SKILL] Skills Course

[Dist.FAH] Distribution Fine Arts and Humanities

[Dist.NSM] Distribution Natural Sciences and Mathematics

[Dist.SS] Distribution Social Sciences

[IC] International Culture

[IGR] Intergroup Cultural Relations

[II] International Issues

[IS] Interdisciplinary Studies

[IAI] Illinois Articulation Initiative

It is possible that one course may fulfill two or more requirements in the General Education program. When this is the case, the abbreviations for the appropriate General Education requirements will appear. For example, [Dist.SS, II] indicates that this course may be used to fulfill a Social Science Distribution requirement and also meets the International Issues requirement. In some cases, different parts of a sequenced course may fulfill different requirements. For example, [Dist.SS, (a) IC, (b) II] indicates that part (a) of this sequence will fulfill the International Culture requirement while part (b) will fulfill the International Issues requirement. When a course has two or more parts and the parts are not listed singly, both parts fulfill the requirements indicated.

In some cases, a course cannot fulfill two requirements; for example HIST 111b cannot be counted toward fulfillment of both Introductory and Distribution course requirements. Students should carefully read course descriptions in order to be aware of how particular courses will fulfill the General Education program requirements.

Academic Development (AD)

Institutional credit is given for zero-level Academic Development courses (AD 065 – AD 095). Such credit may not be used for graduation, and letter grades are not calculated in the grade point average.

065-3 Mathematics And Pre-College Algebra — Application problems involving real numbers, fractions, percents, decimals; first degree equations and inequalities, absolute value, operations with polynomials, factoring,

operations with rational expressions. Credit not to be counted for graduation. Letter grades not to be counted in grade point average. Four contact hours.

075-3 Beginning/Intermediate Algebra — Linear and quadratic equations and inequalities, absolute value, polynomials, factoring, rational expressions, graphing linear equations, radicals, complex numbers, systems of linear equations, conic sections, application. Credit not to be counted for graduation. Letter grades not counted in grade point average. Five contact hours.

080a,b-2,3 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 a,b-2,3. Credit not to be counted for graduation. Letter grades not counted in grade point average. Five contact hours.

082-3 College Reading II — Course 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.

085-3 Introduction to Geometry — Fundamentals of Euclidean Geometry: angles, parallel lines, polygons, circles, polyhedrons, area and volume, similarity, congruence, mathematical reasoning, informal proofs. Credit not counted toward graduation. Letter grades not counted in grade point average.

090a,b-2,3 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 will be awarded as AD 090 a,b-2,3. Credit not to be counted for graduation. Letter grades not counted in grade point average. Five contact hours. Prerequisite: Course placement determined by ACT and writing assessment. Exit criteria to AD 092: C or better in AD 090A and D or better in AD 090B and/or consent of instructor. Exit criteria to ENG 101: C or better in AD 090A and 090B and/or consent of instructor.

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 090a and D in AD 090b and/or consent of instructor. Exit Criteria to ENG 101: C or better in AD 092 and/or consent of instructor.

095-3 Intermediate Algebra — Exponents, polynomials, factoring, linear and quadratic equations and inequalities, rational expressions, radicals, complex numbers, graphing linear equations, systems of linear equations, applications. Credit not counted toward graduation. Letter grades not counted in grade point average. Four 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 decision-making process investigates self-awareness, career exploration, career information gathering, life styles and job search strategy including development of resumes, interviewing skills and networking techniques.

Accounting (ACCT)

200-3 Fundamentals of Financial Accounting — Concepts of financial accounting and external reporting. Nature and measurement of assets, liabilities, equities, revenues, expenses. Emphasis on use and understanding of external financial statements. Prerequisites: ECON 112, CMIS 108.

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 I — Financial 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.

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: Acct 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.

Adult Education (ADED)

490-3 Introduction to Adult and Continuing Education — Nature of the field and major areas of professional practice, basic concepts, issues, various program areas, institutional settings.

495-1 to 6 Selected Topics — Varied content related to adult and continuing education. Offered from time to time as need exists and as faculty interest and time permits.

Aerospace Studies (AS)

101-2 The Air Force Today — Study of Air Force and ROTC; mission and organization, officership and professionalism, military customs and courtesies, officer opportunities, group leadership problems. Leadership Laboratory mandatory for AFROTC cadets. Classroom activity, two hours per week; Leadership Laboratory two hours per week, each semester.

102-2 The Air Force Today — Continuation of 101.

201-2 The Air Force Way — Discussion of Air Force heritage, leaders, Quality Air Force, ethics and values, leadership, group leadership problems, and communication skills. Leadership Laboratory mandatory for Air Force ROTC cadets. Classroom activity, two hours per week; Leadership Laboratory two hours per week, each semester.

202-2 The Air Force Way — Continuation of 201.

301-3 Air Force Leadership and Management — Development of understanding of managerial and leadership responsibilities. Basic concepts of individual motivation; organizational dynamics; leadership. Three hours lecture per week; laboratory two hours per week,

each semester.

302-3 Air Force Leadership and Management — Continuation of 301.

401-3 Preparation for Active Duty — National security process, regional studies, advanced leadership ethics, Air Force doctrine. The military as a profession, officership, military justice, civilian control of military, preparation for active duty, and current issues. Continued emphasis on communication skills. Leadership Laboratory mandatory. Classroom activity, three hours per week; Leadership Laboratory two hours per week, each semester. **Not for graduate credit.**

402-3 Preparation for Active Duty — Continuation of 401. **Not for graduate credit.**

Anthropology (ANTH)

111-3 Introduction to Anthropology — [INTRO, IC] [IAI No. S1 900N] Examines biological and cultural evolution and life-style of people around the world as a means to better understand ourselves. Uses museum materials and audiovisual resources for illustration.

300-3 Ethnographic Methods and Theory — [Dist.SS] Theory, ethics and application of field methods and data analysis in cultural anthropology including participant observation, interviews, questionnaires and visual data collection. Prerequisite: Anth 111.

301-3 Language and Culture — [Dist.SS, IC] Relations between language and culture; development of language and culture as human characteristics; linguistic diversity and universals; introduces sociolinguistics. Prerequisite: 111 or consent of instructor.

302-3 World Music — [Dist.SS, IC] A survey of world music traditions, including the music of Europe, North America, Asia, Africa, and Latin America.

305-3 Peoples and Cultures of Native North America [Dist.SS, 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 — [Dist.SS, IC] History, culture and social organization of selected Asian societies examined through films, narratives, artifacts and ethnographies.

307-3 People and Culture of Latin America and the Caribbean — [Dist.SS, IC] Social and cultural aspects of contemporary Mexico, Central America, South America, and the Caribbean in historical and environmental context.

310-3 People and Culture of Africa — [Dist.SS, IC]

Cross-cultural comparisons of African tribes to illustrate general principles of anthropology; relation of tribal backgrounds to contemporary economic and political life.

311-3 Culture of African-Americans — [Dist.SS, IGR] Black family, religion, and political movements within American society. Historical experiences, social institutions and cultural developments of African-Americans, political responses to oppression.

312-3 Contemporary Native Americans — [Dist.SS, IGR] History of unique position within North American society; contemporary issues in economics, politics, law, religion, social life and cultural heritage. (Prerequisites: 111, 305 or consent of instructor)

313-3 Women in Cross-Cultural Perspective — [Dist.SS, 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.

315-3 Family and Household in Cross-Cultural Perspective — [Dist.SS, 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. Prerequisite: 111 or consent of instructor.

325-3 Archaeological Method and Theory — [Dist.SS] Major historical developments in Old and New World archaeology; methods and theoretical approaches to data analysis, and cultural resource management. Prerequisite: 111 or consent of instructor.

331-3 World Prehistory — [Dist.SS, 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 — [Dist.SS, 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 — [Dist.SS, 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 — [Dist.SS, 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.

340-3 Cultural Ecology — [Dist.SS, IC] Surveys the relationship between humans and their environment from

an anthropological perspective. Begins with the earliest humans and ends with contemporary humans/modern problems.

350-3 Anthropology in Contemporary Life — [Dist.SS, II] Current issues from anthropological perspective: ethnicity and religious divisions, world hunger, concepts of health and medicine, other uses of anthropology for practical problems.

360A-3 Biological Anthropology Method and Theory — [Dist.NSM] History of biological anthropology, current methods and theories. Includes evolutionary theory, nonhuman primates, human variation, genetics, and paleoanthropology. Must be taken concurrently with 360B. Prerequisite: ANTH 111.

360B-1 Biological Anthropology Lab — [Dist.NSM] Laboratory course that must be taken concurrently with 360A. Covers human osteology and comparative non-human primate material. Prerequisites: ANTH 111.

365-3 Human Origins — [Dist.NSM] 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 111.

366-3 Biology of Human Behavior — [Dist.NSM] A critical look at how biology influences human behavior. Topics include gender, communication, and violence, investigated using non-human animals as comparative models.

367-3 Primatology — [Dist.NSM] An overview of humans closest relatives (prosimians, monkeys, apes). Includes primate evolution, anatomy, ecology, social behavior, cognition, and conservation. Prerequisite: 111.

373-3 to 6 Ethnographic Field School I — [Dist.SS] Students participate in an original research project in linguistic or cultural anthropology directed by the instructor; emphasizes field data collection methods. Prerequisite: ANTH 111.

374-3 to 6 Biological Anthropology Field School I — [Dist.NSM] Research design, data collection and analysis in primatology, skeletal biology, or paleoanthropology, directed by instructor, requiring an independent project or participation in joint project. Prerequisite: 111 and consent of instructor.

375-3 to 6 Archaeological Field School I — [Dist.SS] 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. Prerequisites: 111 or consent of instructor.

400-3 Contemporary Cultural Theory — [Dist.SS]

Advanced survey of contemporary cultural anthropological theory, from interpretive anthropology through postmodernism and beyond. Prerequisite: 111 or consent of instructor.

401-3 Anthropological Linguistics — [Dist.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: 301 or consent of instructor.

402-3 Language and Gender in Cross-Cultural Perspective — [Dist.SS, IC] (Same as WMST 402)

Examination of gendered language use in a variety of cultures worldwide, and of the socialization of children into gendered language use as children and adults. **Not for graduate credit.**

404-3 Anthropology and the Arts — [Dist.SS, IC]

Analyses a variety of western and non-western material and visual art forms; interpretation focuses on form, process, meaning, function and value. Prerequisite: 111 or consent of instructor.

408-3 History of Anthropological Thought —

[Dist.SS] Historical development of anthropology. Central ideas and schools of thought. Shifts in theory, method, and problem definition. Prerequisites: 301 or consent of instructor.

410-3 Anthropology of Religion — [Dist.SS, 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: 111 or Junior Standing.

411-3 Urban Anthropology — [Dist.SS, 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: 111 or consent of instructor.

420-3 Museum Anthropology — [Dist.SS] Course examines historical developments, theoretical approaches, contemporary issues, and hands-on methods of analysis in museological approaches to anthropology's four fields. Prerequisite: consent of instructor.

428-3 Primates, Environments, and Conservation — [Dist.NSM] 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.

429-3 Forensic Anthropology — [Dist.NSM]

Introduction to forensic anthropology, examining structure and function of the human skeleton. Methods for identifying sex, age, ancestry, trauma and disease. **Not for graduate credit.** Pre-requisite: ANTH 111, ANTH 360A,B.

430-3 Zooarchaeology — The archaeology of animal remains. Methods and theories for investigating human use of animals in the past. Emphasis on identification of animal bone. **Not for graduate credit.** Prerequisites: 111, 360b.

432 Prehistory of Illinois — [Dist.SS] Prehistoric cultural developments in Midwest between 12,000 B.C. and 1500 A.D. Events leading to climax of Mississippian culture at Cahokia. Utilizes slides, archaeological collections, displays in Anthropology Teaching Museum. **Not for graduate credit.**

435-3 American Material Culture — [Dist.SS]

Theories and methods of interpretation applied to artifacts and museum sites that express historic and contemporary American culture, including American ethnic groups. Prerequisite: 111 or consent of instructor

452-3 Political Anthropology — [Dist.SS, II] Cross-cultural comparison of political systems emphasizing non-European peoples. Functional relations between politics and society, growth of political complexity; systems of authority/leadership. **Not for graduate credit.** Prerequisite: junior standing or consent of instructor.

470-3 to 9 Special Topics in Anthropology —

[Dist.SS] 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: 111 or consent of instructor.

473-3 Ethnographic Field School II — [Dist.SS]

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. **Not for graduate credit.** Prerequisite: 373.

474-3 Biological Anthropology Field School II —

[Dist.NSM] Research design, data collection and analysis in primatology, skeletal biology or paleoanthropology directed by instructor, requiring an independent project or participation in joint project. **Not for graduate credit.** Pre-requisite: 111 and consent of instructor.

475-3 Advanced Archaeological Field Methods — [Dist.SS] New techniques for data recovery. Opportunities to develop specialized capabilities in

ancillary methods including photography, mapping, faunal, floral, and ceramic analysis. **Not for graduate credit.** Prerequisite: 375 and consent of instructor.

483-1 to 6 Individual Study in Anthropology — Guided research on anthropological problems supervised by single faculty member chosen by student. Consult chairperson before enrolling. **Not for graduate credit.**

490-1 Senior Assignment — Demonstration of proficiency in application of Anthropological knowledge and General Education skills and knowledge to real world problems. Selection of Senior project problem. **Not for graduate credit.** Prerequisite: Senior standing.

491-1 Senior Project — Demonstration of proficiency in investigation of selected problem and formal presentation of results of investigations. **Not for graduate credit.** Prerequisite: 490.

Art and Design (ART)

111-3 Introduction to Art — [INTRO] 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: Three-dimensions. 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: Art 112d and Art 112c with C or better, (concurrent enrollment allowed with Art 112c) or consent of advisor.
- b Printmaking:** Relief, intaglio, and/or lithography. Prerequisite: Art 112c and Art 112d with C or better, (concurrent enrollment allowed with Art 112d) or consent of advisor.
- c Ceramics:** [Dist.FAH] Glazing, firing
- d Painting:** Oils. Prerequisite: Art 112c and Art 112d with C or better, (concurrent enrollment allowed with Art 112d) or consent of advisor.
- e Drawing:** Composition, figure. Prerequisite: Art 112c and Art 112d with C or better, (concurrent enrollment allowed with Art 112d) or consent of advisor.

- f Weaving/Textiles:** Off-loom, dying, fibers. Prerequisite: Art 112a,b; Art 112c and Art 112d with C or better (concurrent enrollment allowed with Art 112c and Art 112d) or consent of advisor.
- g Metalsmithing:** Aesthetic and technical pursuits of contemporary jewelry and metalsmithing at beginning level. Prerequisite: Art 112c and Art 112d with C or better (concurrent enrollment allowed with Art 112c) or consent of advisor.
- h Photography:** [Dist.FAH] Black-and-white photography, including basic theory and practice: photographic vision, camera controls, film processing, darkroom printing. Students are required to have a working 35mm camera with manual controls.
- i Graphic Design:** [Dist.FAH] Introduction to visual communication problem-solving skills. Exercises: principles of perception, typographic usage, and visual hierarchy. Combines traditional hand skills with basic computer skills. Prerequisite: Art 112b, Art 112c, Art 112d with C or better (concurrent enrollment allowed with Art 112c and Art 112d) or consent of advisor.

225a,b-3 each History of World Art — [Dist.FAH, 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 Schools — Objectives, 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: junior standing or consent of instructor.

302a-3 to 6 Photography II: Alternative Processes — Exploration of traditional and alternative processes in photography. Topics range from darkroom techniques, medium format photography, Polaroid transfers, and digital photography. Students are required to have a working 35mm single lens reflex camera with manual controls. Prerequisites: Art 112c, 112d and 202h with grades of C or better (concurrent enrollment allowed with Art 112c and Art 112d) or consent of advisor.

302b-3 to 6 Photography II: Genres and Techniques — Exploration of photographic genres and techniques at the intermediate level. Topics could include the following: studio photography, documentary photography, and

problems in landscape photography. Students are required to have a working 35mm single reflex camera with manual controls. May be repeated for a maximum of 6 credits. Prerequisites: Art 112c, 112d and 202h with grades of C or better (concurrent enrollment allowed with Art 112c and Art 112d) or concurrent enrollment.

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: Art 112c, d and 202c with grades of C or better (concurrent enrollment allowed with Art 112c and Art 112d) or consent of advisor.

309-3 to 6 Watercolor — Introduction to water color and other aqueous media with emphasis on traditional and modern techniques; awareness of materials available. May be repeated for a maximum of 9 hours. Prerequisite: Art 202d with a grade of C or better.

310a-3 to 6 Painting Methods — An 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: Art 202d with a grade of C or better.

310b-3 to 6 Figure Painting — An 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. Prerequisite: Art 202d and 202e with grades of C or better.

311-3 Typography — This course 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: Art 202i with a grade of C or better.

312-3 Graphic Design II — Intermediate desktop design and publishing; electronic typography, pagination and illustration; symbol, logo, poster and publication design; computer imaging. Prerequisite: 311 with a grade of C or better.

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.

331-3 to 6 Advanced Drawing — Technical and conceptual study of human figure and other subject matter with emphasis on content in development of individual compositions. May be repeated for a maximum of 9 hours.

Prerequisite: Art 202e 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: Art 202b with a grade of C or better.

359-3 Intaglio Processes — Hard and soft-ground etching, lift grounds, relief etching, engraving, drypoint, aquatint, colorgraphs, color techniques. Prerequisite: Art 202b with a grade of C or better.

360-3 Lithographic Processes — Stone and plate lithography with focus on crayon, wash, transfer, and color techniques. Prerequisite: Art 202b with a grade of C or better.

361-3 Unique Prints — Various methods of printing one-of-a-kind prints, e.g. monotypes and monoprints. Prerequisites: Art 202b with a grade of C or better.

364-3 Curriculum Development in Elementary and Secondary Art Education — Curricular models used in art education; construction of sample art curriculum for given levels. Prerequisite: 289 and junior standing or consent of instructor.

365-3 Art Education in the Secondary Schools — 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.

384-3 to 6 Fibers — Techniques and aesthetic concerns in papermaking, feltmaking, dyeing, surface design, weaving, basketry. Mixed media approach emphasis. May be repeated for a maximum of 9 hours. Consent of instructor if taking more than 3 hours per semester. Prerequisite: 202f with a grade of C or better.

386-3 to 6 Metalsmithing II — Advanced metal fabrication, forging, forming, surface embellishments, centrifugal casting stone settings, bowl raising. May be repeated to a maximum of 9 hours. Prerequisites: Art 202g 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. Prerequisites: 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: Art 310a and Art 310b 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: Art 393a, Art 393b, or Art 393c 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: More than 75+ 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 work in traditional or experimental methods. Portfolio development. May be repeated for a maximum of 12 hours. Prerequisites: Art 358, Art 359 or Art 360 with grades of C or better or consent of advisor. 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: Art 312 with a grade of C or better or consent of advisor. Art majors only.

413-3 Digital Arts — Exploration of computer-based image-capture 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: Art 302a or consent of instructor. Art majors only.

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. Prerequisites: 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. Prerequisites: Art 305-9 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. Prerequisite: Art 302a and Art 302b or consent of advisor. Art majors only.

424a,b-3 each Baroque and Rococo Art — [Dist.FAH, IC] (a) Visual arts of Southern Europe during 17th and 18th centuries; (b) Visual arts of Northern Europe during 17th and 18th centuries. Prerequisites: 225a,b with grades of C or better or consent of advisor.

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. Prerequisites: 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. Prerequisites: Consent of advisor. Art majors only.

440-3 Illustration — Techniques in the applied art of illustration, using both traditional and contemporary techniques. Exploration of editorial, book advertising, and institutional illustrations. May be repeated to a maximum of 6 hours. Prerequisites: Art 312 with a grade of C or better or consent of advisor. Art majors only.

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. Prerequisites: Art 331 with a grade of C or better or consent of advisor. Art majors only.

447a,b-3 each Ancient Art — [Dist.FAH, IC] Art and architecture from prehistory through Rome. (a) Prehistoric to Greek late archaic; (b) Greek high Classic to Rome. Prerequisites: 225a with a grade of C or better or consent of instructor.

448a,b-3 each Early Christian and Medieval Art — [Dist.FAH, IC] (a) Early Christian, Byzantine, and Early Medieval art up to the 10th century; (b) Romanesque and Gothic art. Prerequisites: 225a,b with grades of C or better or consent of instructor.

449a,b-3 each Renaissance Art — [Dist.FAH, IC] (a) Architecture, sculpture, and painting of the Renaissance and Mannerist periods in Northern Europe; (b) Architecture, sculpture, and painting of the Renaissance and Mannerist periods in Italy and Southern Europe. Prerequisites: 225a,b 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.

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 — [Dist.FAH] 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 — [Dist.FAH] 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 — [Dist.FAH] Accessioning and deaccessioning processes, research, collection management, use of computers, narrative, photo-documentation. **Not for art history credit.** Prerequisite: 453.

468a,b-3 each Primitive Art: The Americas — [Dist.FAH, IC], (a) Arts of indigenous societies of the Americas presented in cultural and geographical sequence, ancient to 19th century. (a) Precolumbian art; (b) North American Indian art. Prerequisites: 225a,b with grades of C or better or consent of advisor.

469a,b-3 each Primitive Art: Africa and Oceania — [Dist.FAH, 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: 225a,b with grades of C or better or consent of advisor.

470-3 Topics in Art History — [Dist.FAH] Topics may include: seminars on specific artist or area; investigations of branches of art historical inquiry; major trends and issues in art since 1970. May be repeated to a maximum of 9 hours as long as no topic is repeated. Prerequisites: Art 225a and Art 225b with grades of C or better or consent of advisor.

473a,b-3 each Women in Art — [Dist.FAH, IC] (Same as WMST 473) (a) History of women artists from the Middle ages to World War II; (b) History of women artists from World War II to the present. Prerequisite: 225a,b with grades of C or better or consent of advisor.

475-3 History of Photography — [Dist.FAH] Principal technical and stylistic developments in photography from the early 19th century to the present. Prerequisite: 225b with a grade of C or better or consent of advisor.

476-3 History of Modern Architecture and Design — [Dist.FAH] Principal technical and stylistic developments in architecture and design from the early 19th century to the present. Prerequisite: 225b with a grade of C or better or consent of advisor.

480-3 American Art — [Dist.FAH] Survey of the history of art in the U.S. from the Colonial period to the present day. Prerequisite: 225b with a grade of C or better or consent of advisor.

481a,b-3 each Modern and Contemporary Art — [Dist.FAH] Principal movements and theories of 19th and 20th century art. (a) Modern art from 1800 to 1950; (b) Contemporary art from 1950 to the present. Prerequisite: 225b with a grade of C or better or consent of advisor.

483-3 Research in Art History — [Dist.FAH] 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 and/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. Prerequisites: 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. Prerequisites: 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. Prerequisites: Consent of advisor. Art majors only.

499-2 to 6 Senior Thesis Exhibition — Nature of final thesis determined according to student's major studio area and directed by student's major adviser and committee. Consists of thesis exhibition and written statement of artistic intent. B.F.A candidates only. Prerequisites: Senior standing. Art majors only.

Biological Sciences (BIOL)

111-3 Contemporary Biology — [INTRO] [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.

120-4 Biology I: Animal Systems — [INTRO] [IAI No. L1 902L] Cellular organization, metabolism, genetics, reproduction, development physiology, and evolution of animals. Three hours lecture, one laboratory per week.

Prerequisites: CHEM 121a and 125a with grades of C or better.

121-4 Biology II: Plant Systems — [INTRO] Cellular organization, metabolism, genetics, reproduction, development, photosynthesis, physiology and evolution of plants. Three hours lecture, one laboratory per week. Prerequisites: 120, CHEM 121b and 125b with grades of C or better.

203-3 Human Sexuality and Reproduction — [Dist.NSM] 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 with a C or better or equivalent.

204-3 Biotechnology and Society — [Dist.NSM, II] 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 equivalent with a grade of C or better.

205-3 Human Diseases — [Dist.NSM] 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 with a grade of C or better.

220-4 Genetics — [Dist.NSM] 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: 120 and 121 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 — [(a) INTRO] [IAI No. L1 904L] [(b) Dist.NSM] 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) 111 and CHEM 120a with a grade of C or better or consent of instructor. (b) 240a with a grade of C or better.

250-3 Bacteriology — [Dist.NSM] Structure, nutrition, and genetics of bacteria; control of microbial growth; comparison of medically important bacteria and viruses; host response to infectious disease. Two hours lecture, one laboratory period per week. Prerequisites: 111 and CHEM 120a with grades of C or better or equivalent.

319-4 Cell and Molecular Biology — [Dist.NSM] 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: 120, 121, 220, and CHEM 241A with grades of C or better.

327-3 Evolution — [Dist.NSM] 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: 120, 121, 220, and 319 with grades of C or better.

332-3 Basic Biochemistry — [Dist.NSM] 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 241b with a grade of C or better (BIOL 319 is recommended).

335-3 Introduction to Immunology — [Dist.NSM] 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 — [Dist.NSM] 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 — [Dist.NSM] Function and regulation of major organ systems in vertebrates, neural responsiveness and integration, homeostasis of body fluids, circulation, respiration, organic maintenance, hormonal control. Three hours lecture and three laboratory hours per week. Prerequisites: 120, 319 with grades of C or better or consent of instructor.

350-4 Microbiology — [Dist.NSM] Structure, metabolism, and genetics of bacteria and bacteriophages. Role of bacteria in disease, biotechnology, and the environment. Prerequisites: 120, 121, 220, 319, and CHEM 121b with grades of C or better.

351-4 Diagnostic Microbiology — [Dist.NSM] Methods for isolating pathogenic bacteria and determining significant properties and immunological features. Two lectures and two-hour laboratories per week. Prerequisite: 350 with a grade of C or better.

365-4 Ecology — [Dist.NSM, II] 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: 120 and 121 with grades of C or better

371-3 Plants and Civilization — [Dist.NSM, IC, II] A multidisciplinary introduction to the basic principles of plant science with a strong emphasis on the economic aspects and cultural importance of plants. Prerequisites: 121 with a grade of C or better or consent of instructor.

380-4 Invertebrate Biology — [Dist.NSM] Discussion of the major phyla 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: 120, 121 with grades of C or better or consent of instructor.

389-4 Comparative Vertebrate Anatomy — [Dist.NSM] A systematic study of the vertebrate body. Comparative approach will explore the anatomical similarities and differences among major vertebrate taxonomic groups. Prerequisites: 120 and 121 with grades of C or better.

414-4 Molecular Biology Laboratory — [Dist.NSM] Enzyme activity measurements. Purification of proteins, nucleic acids, lipids, carbohydrates. Isolation and characterization of cell organelles. Centrifugation, chromatography, gel and agarose electrophoresis. Students will be expected to present written reports of their work. **Not for graduate credit.** Prerequisite: 332 or 430 with grades of C or better.

415a-3 Techniques in Cell and Tissue Culture — [Dist.NSM] Eukaryotic cell tissue culture; consideration of growth, differentiation, metabolism, and transformation of cells in culture. Theory, techniques, and cell culture. One lecture and one laboratory per week. Prerequisites: 319 with a grade of C or better and consent of instructor.

415b-3 Laboratory in Cell and Tissue Culture — [Dist.NSM] Supervised exercises in techniques, growth, differentiation and metabolism of cells in culture. Prerequisite: 319 with a grade of C or better.

417-4 Quantitative Methods in Experimental Biology — Conceptual treatment emphasizes theory and common intermediate-level techniques seen in biological literature. Practical experience using spreadsheet and statistical software. Prerequisites: 319, STAT 244 or 410, CS 108 or CMIS 108 with grades of C or better, or equivalent, or consent of instructor.

418a-3 Recombinant DNA — [Dist.NSM] 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 — [Dist.NSM] Experiments in gene manipulation using bacterial genes exempt from federal guidelines concerning Recombinant

DNA. Six laboratory hours per week. **Not for graduate credit.** Prerequisite: 418a with a grade of C or better and consent of instructor.

421-3 Human Genetics — [Dist.NSM] 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.

422-3 Population Genetics — 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 with grades of C or better.

425-3 Developmental Biology — 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 — [Dist.NSM] (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 Bases of Medicine — [Dist.NSM] Causes, treatment, and detection of human diseases, as studies from cellular and molecular levels. Prerequisite: 430 with a grade of C or better.

432-5 Advanced Cell Biology — [Dist.NSM] Analysis of advanced topics in cell biology. Emphasis on group laboratory projects with supporting lectures. Two lectures and two, three-hour labs per week. **Not for graduate credit.**

433-3 Biomembranes — [Dist.NSM] 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.

438-3 Proteins — [Dist.NSM] Physical and chemical properties of structural and enzymatic proteins, isolation, primary, secondary, tertiary and quaternary properties. Evolution of proteins. **Not for graduate credit.** Prerequisite: Biochemistry.

439-2 Nucleic Acids — Physical, chemical and biological properties of nucleic acids in terms of their structure and function. Primary, secondary and tertiary structure.

Not for graduate credit. Prerequisite: Biochemistry.

441-3 Advanced Physiology — [Dist.NSM] 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 Neurobiology — [Dist.NSM] Mechanisms of information processing and control of behavior. Emphasis on membrane theory, synaptic pharmacology, neuroanatomy. Current mechanisms of learning, memory, drug actions, motor control. **Not for graduate credit.** Prerequisites: Human or animal physiology; calculus or physics.

444b-1 Neurobiology Laboratory — Introduction to neurophysiological research. Demonstrations include electrical recording, drug reactions, brain dissection, stereotaxis, and histology. **Not for graduate credit.** Prerequisite: 444a or concurrent enrollment.

450-3 Science, Gender and Race — [Dist.NSM, IGR] (Same as WMST 450) Current social issues and historical perspectives of science, especially biology, and its medical and technical applications, as these relate to gender and race.

451-3 Microbial Pathogenesis — [Dist.NSM] Analysis of the mechanisms of pathogenesis employed by bacteria, fungi, protozoan 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 — [Dist.NSM] 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 — [Dist.NSM] Biochemical and physical structure of viruses and their mode of replication in infected cells, including latency and viral oncogenesis. **Not for graduate credit.** Prerequisites: biochemistry or organic chemistry; microbiology; BIOL 350, 332 or 430 or CHEM 241 with grades of C or better.

461-4 Plants and Environment — [Dist.NSM] 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 121 with a grade of C or better or consent of instructor.

462-3 Biogeography — [Dist.NSM] 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.

464-3 Applied Ecology — [Dist.NSM] 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 — [Dist.NSM] Biogeochemistry and community structure of aquatic systems including human impacts on these systems. Laboratory includes trips to local freshwater ecosystems. Three lectures, one three-hour lab per week. Prerequisites: 319, 365 with grades of C or better or consent of instructor. same as ENSC 465.

466-3 Terrestrial Ecosystems — [Dist.NSM] (Same as ENSC 466) Community structure, biogeochemistry and historical development of terrestrial ecosystems. Two lectures, one three-hour laboratory per week. Weekend field trips may be required. Prerequisite: 220 with a grade of C or better.

467-3 Animal Physiological Ecology — 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: 120, 121, and either 340 or 365 with grades of C or better or permission of instructor.

468-3 Pollution Ecology — 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 a,b with a grade of C or better or consent of instructor.

470-4 Field Biology — [Dist.NSM] 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: 121 with a grade of C or better.

471-4 Plant Systematics — Examination of basic processes in vascular plant evolution. Local flora characteristics and identification. Three lectures and one, two-hour lab per week. Prerequisites: 120, 121, 220, 319 with grades of C or better.

472-4 Topics in Plant Physiology — [Dist.NSM] Topics include photosynthesis, mineral nutrition, water as related to plants, growth and movement of plants. Two lectures and 2 laboratories per week. Prerequisites: 120, 121, 220, 319 with grades of C or better or consent of

instructor.

473-4 Plant Anatomy — Examination of plant cells, tissues, and morphology. Two lectures and two labs per week. Prerequisites: 120, 121, 220, and 319 with grades of C or better.

474-4 Plant Taxonomy — [Dist. NSM] A field-oriented course in which students collect and identify plant specimens using professional taxonomic keys. Prerequisites: 121 with a grade of C or better or consent of instructor.

480-4 Animal Behavior — Examination of mechanisms, evolution, and ecological consequences of animal behavior. Concepts will be introduced through lectures, laboratory and field experiments, and independent projects. Prerequisites: 120, 121, 220, 319 with grades of C or better.

483a-2 b,c-1 each (A) Entomology, (B) Insect Morphology Laboratory, (C) Insect Collection Laboratory — (a) Structure, function, development, evolution and ecology of insects. Two lectures per week. Prerequisite: 220; (b) required with (a) Dissection of representatives of major insect orders and introduction to insect collecting. One three-hour laboratory per week; (c, optional) Field collection, identification and pinning of insects. One three-hour laboratory per week. **Not for graduate credit.** Prerequisite: Concurrent enrollment in 483a, & b with grades of C or better or consent of instructor.

485-4 Ichthyology — [Dist. NSM] Relationships, ecology, distribution, behavior, anatomy of fishes. Emphasis on local fauna. Two lectures and 2 laboratories per week. Saturday field trips required. Prerequisite: 120, 121 with grades of C or better or consent of instructor.

486-4 Herpetology — [Dist. NSM] Living and fossil amphibians and reptiles, evolution, relationships, morphology, behavior. Two lectures and 2 laboratories per week. Saturday field trips required. Prerequisites: 120, 121 with a grade of C or better or consent of instructor.

488-4 Mammalogy — [Dist. NSM] Morphology, systematics, natural history, taxonomy, evolution of living and fossil mammals. Two lectures and 2 laboratories per week. Prerequisites: 120, 121 with a grade of C or better or consent of instructor.

490-2 to 4 Topics in Biology — 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.**

491a-u-1 to 4 Readings in Biology — (a) Anatomy; (b) Behavior; (c) Biochemistry; (d) Botany; (e) Cell biology; (f) Developmental biology; (g) Ecology; (h) Endocrinology; (i) Entomology; (j) Evolution; (k) Genetics; (l) Immunology; (m) Microbiology; (n) Parasitology; (o) Physiology; (p) Research methods; (q) Ultrastructure; (r) Zoology; (s) Virology; (t) History of biology; (u) Biology and human welfare. Supervised readings in specialized areas. No credit toward minor in biology. May be repeated to a maximum of 8 hours credit. 491a-u are graded pass/no credit. **Not for graduate credit.** Prerequisite: consent of instructor.

492a,b-1 each Colloquium in Ecology, Evolution and Environment — Seminar will consider recent advances. 492a & b are graded pass/no credit. **Not for graduate credit.** Prerequisites: Completion of 120, 121, 220, 319 with grades of C or better.

492c,d-1 each Colloquium in Cell and Molecular Biology — Seminar will consider recent advances. 492c,d are graded pass/no credit. **Not for graduate credit.** Prerequisites: Completion of 120, 121, 220, 319 with grades of C or better.

493a-w-1 to 8 Research in Biology — (a) Anatomy; (b) Behavior; (c) Biochemistry; (d) Botany; (e) Cell biology; (f) Developmental biology; (g) Ecology; (h) Endocrinology; (i) Entomology; (j) Evolution; (k) Genetics; (l) Immunology; (m) Microbiology; (n) Parasitology; (o) Physiology; (p) Research methods; (q) Ultrastructure; (r) Zoology; (s) Virology; (t) History of biology; (u) Biology and human welfare; (v) Ichthyology; (w) Fishery biology. 493a-w are graded pass/no credit. **Not for graduate credit.** Prerequisite: consent of instructor.

494-3 Methods of Teaching Biology in the Secondary School — [Dist. NSM] Methods in biology secondary education. 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 — 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.

495g-n-1 to 12 Clinical Topics in Cytotechnology —

Hospital based lecture at an accredited and affiliated school of cytotechnology. (g) Introduction to Cytology; (h) Neoplasia; (i) Processing Laboratory; (j) Respiratory and Oral Cytology; (k) Effusion and CSF Cytology; (l) GI, GU, Breast and FNA Cytology; (m) Scientific Method and Literature; (n) Advanced Practices in Cytology. May be repeated to a maximum total of 36 hours. **Not for graduate credit.** Prerequisite: acceptance for clinical education into an affiliated school of cytotechnology.

497-2 Senior Assignment — Demonstration of proficiency in biological sciences. **Not for graduate credit.** Prerequisite: 120, 121, 220, 319 with grades of C or better.

Chemistry (CHEM)

111-3 Contemporary Chemistry — [INTRO] [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 — 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] [IAI No. P1 902] INTRO, (b) Dist.NSM] 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 — [INTRO NSM or Dist.NSM] Not for chemistry majors. Primarily for students planning careers in nursing and allied health professions. Three 75-minute lectures per week. Prerequisite: one year of high school chemistry and concurrent enrollment in 124n.

121a,b-4 each General Chemistry — [(a) INTRO or Dist.NSM] [IAI No. P1 902], [(b) Dist.NSM] 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 — [(a) IAI No. P1 902L; (b) Dist.NSM] 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.

124n-1 Nursing Principles of General, Organic, and Biological Chemistry Laboratory Laboratory [Intro or Dist.NSM] — 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 — [Dist.NSM, 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 — [INTRO, DIST NSM] 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 — [INTRO, NSM or Dist.NSM] 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 — [Dist.NSM] 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 — 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 — Faculty-supervised 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 Quantative Analytical Chemistry — [Dist.NSM] Theory and methods of chemical analysis. Three lecture hours per week. Prerequisites: 121b, concurrent enrollment in 335.

335-1 Quantitative Analytical Chemistry Laboratory — 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 — Identification of organic compounds, advanced synthetic techniques. Two laboratory periods per week. Prerequisite: 241b, 245.

361a,b-3 each Physical Chemistry — [Dist.NSM] 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 — 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: concurrent enrollment in corresponding 361 lecture.

396-2 Introduction to Research — 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.

411-3 Inorganic Chemistry — [Dist.NSM] 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.

415-2 Inorganic Chemistry Laboratory — 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 — 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 — [Dist.NSM] Theory and methods of modern instrumental analytical techniques and instrumentation. Three lecture hours per week. Prerequisites: 361a.

435-1 Instruental Analysis Laboratory — 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 — Selected advanced topics. May be repeated to a maximum of 6 hours as long as no topic is repeated. Prerequisites: 331, 335, 361a, consent of instructor.

441-3 Physical Organic Chemistry — [Dist.NSM] 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 — [Dist.NSM] Emphasis on monofunctional compounds. Topics not covered in elementary courses. Three lecture hours per week. Prerequisite: 241b.

445-2 Nuclear Magnetic Resonance Operation, Experimental Design, and Analysis — Current practices in the operation, experimental design, and analysis of modern NMR spectroscopy. Prerequisites: 241B, 361A, consent of instructor.

446-1 Organic Spectral Analysis — 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, 361A, consent of instructor.

449-1 to 3 Special Topics in Organic Chemistry — Selected advanced topics. May be repeated to a maximum of 6 hours as long as no topic is repeated. Prerequisites: 241b, 361a, consent of instructor.

451a,b-3 each Biochemistry — [Dist.NSM] Life processes at molecular level. (a) Structure and function of biomolecules; (b) Intermediary metabolism, transmission of hereditary information. Must be taken in sequence. Prerequisite: a) 241b, b) pass 451a.

455-2 Experimental Methods in Biochemistry — Current practices in enzyme isolation and assessment. Microcomputer-assisted data treatment, graphics, statistical methods, data acquisition. Six laboratory hours per week. Prerequisite: 245b, concurrent enrollment in 451a.

459-1 to 3 Special Topics in Biochemistry — 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: 361a, consent of instructor.

469-1 to 3 Special Topics in Physical Chemistry — Selected advanced topics. May be repeated to a maximum of 6 hours as long as no topic is repeated. Prerequisites: 361b, consent of instructor.

471-3 Principles of Toxicology — [Dist.NSM] (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 — 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 — 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 — 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 — Poster presentation and 10-15 minutes oral presentation of an approved topic; required for graduation. **Not for graduate credit.** Prerequisite: 365a.

Chinese (CHIN)

101-4 Elementary Chinese I — [SKILLS] Reading, writing, listening, comprehension and speaking in Chinese, within context of Chinese culture. Lab included.

102-4 Elementary Chinese II — [SKILLS, IC] Continuation of 101. Lab included. Prerequisite: 101 or placement testing.

201-4 Intermediate Chinese I — [Dist.FAH] 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 — [Dist.FAH]

Continuation of 201. Lab included. Prerequisite: 201 or placement testing.

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 adviser.

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 external and internal force and moment systems. First and second moments of lines and areas. Friction. Prerequisite: PHYS 211a.

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.

244-4 Engineering Mechanics — (Same as ME 244) Static equilibrium conditions for external and internal force and moment systems. Dynamics of rigid-body planar motion. Prerequisite: PHYS 211a.

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: CE 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 adviser.

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: upper-division standing in civil or mechanical engineering, CE 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). Prerequisites: upper-division civil engineering standing, 242, or consent of instructor.

330L-1 Engineering Materials Laboratory — Laboratory determination of material properties and mixing design of concrete. 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. Prerequisites: 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. Prerequisites: Upper-division civil engineering standing, 330, 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. Prerequisites: 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). Prerequisites: upper-division civil engineering standing, 206, ME 262 or concurrent enrollment, or consent of instructor.

380-3 Environmental Engineering — Application of principles of chemistry, physics, biology, mathematics to

engineered systems for water purification, wastewater treatment, air pollution control, solid waste management. Prerequisites: Upper-division civil engineering standing or consent of instructor.

392-1 to 5 Readings In Civil Engineering — Supervised reading in selected subjects in civil engineering. Prerequisites: upper-division civil engineering standing and consent of department chair.

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: CE 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 adviser.

412-3 Groundwater Hydrology — (Same as ENVS 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 ground water resources. Prerequisites: 310, CHEM 113 or equivalents or consent of instructor.

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. **Not for graduate credit.** 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.

444-3 Advanced Mechanics of Deformable Bodies — Energy principles and their application, problems in plane stress and strain; beams on elastic foundations; theories of failure, plates and shells. Prerequisite: upper-division civil engineering standing 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: Upper-division 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: Upper-division civil engineering standing, 342, 445 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: upper-division 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.

470-3 Stress Analysis and Design — (Same as ME 470) Three-dimensional torsion and bending; stress and strain transformations; yield criteria and plasticity theory; finite element method; case studies and engineering design. Prerequisite: 242; ME 370 or equivalent.

473-3 Transportation Site Selection — Engineering techniques for transportation site selection, route selection, geometric design criteria, engineering controls and constraints. Prerequisites: 376, or consent of instructor.

475-3 Urban Transportation — Systems engineering for traffic generation, distribution assignment; analysis and traffic engineering procedures as applied to urban transportation planning and design. Prerequisites: 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(s) : CE 376 or consent of instructor.

478-3 Transportation Engineering Facilities Design — Transportation facilities geometric design and structural design of load-carrying elements. Human factors as related to physical design criteria. Prerequisites: upper-division civil engineering standing, 473, 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: consent of instructor.

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: Upper-division civil engineering standing, 343 or concurrent enrollment, 354, 376, 380, 460 or concurrent enrollment, or consent of instructor.

Computer Management and Information Systems (CMIS)

108-3 Computer Concepts and Applications — [SKILLS] Computer technology's impact on individuals and our world. Finding and accessing worldwide sources of information; presenting ideas orally, graphically, and in writing.

142-3 Visual Basic Programming — 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. Prerequisites: CMIS or CS 108 or concurrent enrollment in either of the two courses; and MATH 120; or three years of college preparatory mathematics in high school.

230-3 Java Programming for Business — Application of business problem-solving techniques, program design and development, and programming logic dealing with the Java SDK Platform. Students apply logical methods to the design and creation of JAVA programs. Prerequisite: 142 or a previous course in computer programming.

260-4 COBOL Programming — [IAI CS913] Business-oriented computer programming using listings, computations, comparisons, tables/arrays, files. Students apply logical methods to the design of programs. Prerequisites: CMIS 142 or CS 140.

270-3 Structured Systems Analysis — Structured tools and techniques as used in business systems analysis and design. Prerequisite: CMIS 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, Accounting, CMIS, Economics or Finance, Business Administration majors.

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: 230 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. Prerequisite: 270 and 142 with grade of C or better, CMIS major or specialization.

460-3 Advanced Visual Basic Programming — Advanced event-driven programming techniques including database programming, creating Active-X and COM components, and optimizing and deploying applications. Prerequisites: 142 or consent of instructor.

462-3 UNIX and Server Systems — UNIX and Windows server operating systems to includes 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.

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 instructor, chair person 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. Prerequisites: consent of instructor, CMIS major or specialization.

Computer Science (CS)

108-3 Applied Computer Concepts — [SKILLS]

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 — [INTRO]

Broad view of computer science: computer hardware, operating systems, software design and development, algorithms, networks, and applications.

140-4 Introduction to Computing I — Programming course that assumes basic computer literacy. Introduces C++ 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 — 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 — Algorithmic problem solving with a modern programming language. Language syntax; basic design methods; algorithms; abstraction. Prerequisite: 140 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.

275-3 Interaction Programming — Techniques and principles of graphical user interface development. Event-driven programming; principles of good screen design; graphical user interface development environment. Prerequisite: 150 with a minimum grade of C.

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: 240 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: 275 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: 240 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.

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 only.

404-3 Scientific Computation — Study computer arithmetic, solving linear, non-linear, and differential equations, optimization, numerical integration and differentiation, Fourier transformation, random numbers, and stochastic simulation. Prerequisite: 150 with a minimum grade of C or consent of instructor.

407-3 ADA Programming — Emphasis on features which make language unique, e.g., packages, exception handling, generics, and tasking. Does not assume prior knowledge of the ADA language. Prerequisite: 340 with a minimum grade of C or consent of instructor.

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 two-semester 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: 312, 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: 240 and 275; 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 — Study of 2D and 3D graphics, graphics hardware, scan conversion, antialiasing, hidden components, transformations, projections, ray tracing, curve and surface modeling, animation. Prerequisites: 312, MATH 135 or MATH 152; all with a minimum grade of C.

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.

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 adviser.

201-3 Construction Materials — Introduction to typical materials including asphalt, concrete, plastic, wood, steel, glass. Examination of molecular structure and factors affecting strength. Prerequisites: 120 or concurrent enrollment and CHEM 120a.

202-3 Construction Methods — Methods and equipment for handling and storage of materials. Construction procedures used with these materials. Prerequisites: 120 or concurrent enrollment and MATH 150 or concurrent enrollment.

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 211a with a grade of C or better.

264-4 Construction Surveying — Surveying applications for construction. Prerequisites: 120, MATH 150 or concurrent enrollment.

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 adviser.

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.

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 211a.

332-3 Mechanical Systems/HVAC — Mechanical heating, air conditioning, ventilation systems. Requirements during construction; construction installation; for completed facility. Prerequisites: 210 and PHYS 211a.

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.

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.

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.

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 adviser.

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: CNST 341 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: CNST 201, 202.

441-3 Site Investigation — Field and office investigation techniques necessary for site development. Includes study of information sources, methods of analysis/interpretation, and constructability analysis. Prerequisite: 301 and senior or graduate standing.

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 — Laboratory and field experiments in soil classification and determination of engineering index properties. Interpretation of test results and geotechnical reports. 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 analysed. 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.

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.

Criminal Justice (CJ)

201-3 Introduction to Criminal Justice — (Same as SOC 201) [INTRO] (IAI Course No. CJR 901) Introduction to the system of criminal justice including police, courts and corrections; includes group learning exercises.

202-3 Introduction to Corrections — [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 — [IAI No. CRJ 914] Arrest, pre-trial detention, court procedures, and punishment involving juveniles; includes waivers to adult court, privacy issues, community-based corrections, recidivism. Prerequisite: sophomore standing.

206-3 Criminal Law and Procedure — [IAI No. CRJ 913] Substantive law and procedural rules, including legislative and administrative aspects. Key Supreme Court decisions on criminal procedure and individual rights. Prerequisite: sophomore standing.

208-3 Introduction to Law Enforcement — 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) [Dist. SS] [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 — Major research methods in social sciences as applied to study of crime and justice; includes surveys, observational methods, experimentation, comparative and historical research. Prerequisite: 201, 202 and 208, CJ majors and

minors only.

303-3 Data Analysis in Criminal Justice — (SOC 303 may be substituted.) 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.

364-3 Rehabilitation and Treatment Modalities — Examines treatment and rehabilitation strategies, including theoretical foundations, counseling techniques, and community-based approaches. Prerequisite: 201, 202

365-3 Ethics in Criminal Justice — 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: 201, 202, 208

366-3 CJ 366-3 Race, Class and Gender in Criminal Justice — Criminal justice from the vantage point of race, class and gender relations; racial/cultural interaction; enforcement patterns; use of discretion; punishment. Prerequisite: SOC 111.

368-3 Serial Rape and Murder — 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 — 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 — 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 — 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 — 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.

420-3 United States Drug Policy — 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 — [Dist. SS] (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.

464-3 Mental Health and the Criminal System — 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: 201, junior/senior standing.

465-3 Theories of the Just Society — 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)— Behavior such as prostitution, drug use, murder, racism, sexual variances, rape and insanity examined theoretically and empirically.

472-3 Explaining Crime — [Dist.SS] (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.

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.

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: student must have accumulated 30 semester hours and have 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 — This course 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 314 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 classrooms with continued introductory level experiences and responsibilities. Prerequisite: CI 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 Secondary Schools — Teaching skills for secondary students focusing on effective teaching research and its application to the secondary classroom. Prerequisites: 200, consent of adviser, admission to program, EPFR 315, 320.

315b-2 Methods of Teaching in Secondary Schools — Teaching skills for secondary students focusing on participate observation skills, model teaching, discipline techniques, content teaching. Prerequisites: 315a or HED 460.

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 interrelatedness of sensorimotor, conceptual, and social development. Prerequisite: 301.

323-3 Literacy Development in the Early Years — Literacy development, birth through age 8, with emphasis on designing appropriate reading and writing experiences for young children. Field Placement required. Taken concurrently with CI 317. Prerequisite: 301.

324-3 Early Literacy Assessments and Strategies — Literacy assessments and instructional strategies to meet the needs of diverse learners in Pre-K through grade three. Application of theory and pedagogy during field placement. Prerequisite: 323.

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.

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,o 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 and science, i)geography, j)political science, l)history, n)math, o)music, q)physics, t)theater. Prerequisite: Registration by secondary education program adviser.

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. Prerequisite: EPFR 415 or consent of OCECA advisor.

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 Experience — Current educational theory and practice as they relate to field experience: Two full-day clinical placements in elementary/ middle level classrooms with extended experiences and responsibilities. **Not for graduate credit.** Prerequisites: 311, 312.

412-3 Early Childhood Curriculum — Theory, design, organization, interpretation, and evaluation of early childhood curriculum. Prerequisites: 410 or consent of instructor.

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.

414-3 Teaching and Integrating Mathematics and Science in Early Childhood Education — Mathematical and scientific concept development for Pre-K–Grade 3 teachers, emphasizing developmentally appropriate methodology and instructional strategies, and employing problem solving and inquiry-based learning. **Not for graduate credit.** Prerequisites: Admission to the early childhood program or consent of program director.

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 OCECA 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.

420-3 Development and Trends in Early Childhood Education — History, philosophy, and current trends underlying strategies for teaching the young child. Prerequisite: 301 or 410.

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. Prerequisite: 301, 410.

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; (l) 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.

440-3 Teaching Reading in the Secondary School — Methodology for junior and senior high schools; developmental and corrective reading programs; appraisal of reading abilities; methods and materials of instruction.

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.** Prerequisites: 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.** Prerequisites: 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.** Prerequisites: 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 OCECA

adviser.

451b-3 to 6 Elementary Student Teaching: Art — Application of theory to practice of teaching. **Not for graduate credit.** Prerequisite: registration by elementary education program adviser.

451c-3 to 6 Elementary Student Teaching: Music — Practice of teaching music in elementary school. **Not for graduate credit.** Prerequisite: registration by elementary education program adviser.

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.** Prerequisites: Registration by OCECA 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.

481-3 Drug Use and Abuse — Approaches to drug and alcohol prevention education focusing on identifying the problems of alcohol and drug misuse and abuse in school settings.

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; (l) 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.

Dance (DANC)

111-3 The Dance Experience — [Intro FAH] 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 Core: Movement Fundamental — [Dist. FAH] Basic movement skills using Bartenieff Movement Fundamentals (basic exercises that integrate and facilitate the neuromuscular connections within the body). Understanding structure and function of human body while developing strength, flexibility, and coordination. May be repeated to a maximum of 9 hours.

210a,b-2 each Beginning Modern Dance Technique — Movement course. Modern dance theories; techniques. Prerequisites: 114 and consent of instructor.

211a,b-2 each Beginning Ballet — Technique class. Fundamentals of classical ballet through barre and center floor work.

212a,b-1 each Jazz Dance — Technique class. Using body through percussive (Matt Mattox) and lyrical (Luigi) jazz dance techniques. May be repeated to a maximum of 4 hours.

213-1 Beginning Tap Dance — Basic tap steps and vocabulary. Tap choreography. May be repeated to a maximum of 3 hours.

214-1 Dance Improvisation — [Dist.FAH] Developing skills in perception and rapid translation of ideas into dance. Prerequisite: consent of instructor.

220-2 Rhythmic Structure and Analysis — Analysis and use of rhythms and compositional forms of music for dance. Prerequisites: 210a,b, or consent of instructor.

230-2 Introduction to Laban Movement Analysis — 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: DANC 214, 320, or consent of instructor.

240-3 History of Dance — [Dist.FAH] Development of dance prior to and during the 20th century. Prerequisite: consent of instructor.

250-1 to 2 University Dance Company — Dance repertory and performance class. Emphasis on technical and choreographic skills for performance. Participation in preparation and presentation of concerts required. Prerequisite: by audition only.

260-1 to 2 Performance/Choreography — [Dist.FAH] 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. Prerequisite: Consent of instructor.

270-1 to 2 Independent Study in Dance — [Dist.FAH] 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 — Techniques designed for strength, flexibility, coordination. Dynamics of movement and its

relationship to space, time, weight, energy flow. May be repeated to a maximum of 6 hours. Prerequisites: DANC 210a,b, or 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.

311a,b-2 each Intermediate Ballet Techniques — Additional ballet vocabulary through barre and center work of increased difficulty. May be repeated to a maximum of 6 hours. Prerequisites: DANC 210a,b or 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.

410a,b-2 each Advanced Modern Dance Technique — 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. Must have completed all Theater and Dance core courses. This restriction does not apply to non-Theater and Dance majors or minors.

411a,b-2 each Advanced Ballet — 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. Must have completed all Theater and Dance core courses. This restriction does not apply to non-Theater and Dance majors or minors.

420a-2 Dance Composition I — Movement studies for solo figure based on exploration of fundamental ingredients of dance (space, time, weight, and energy flow) and how to organize them into compositional forms. **Not for graduate credit.** Prerequisites: DANC 210a,b, and 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.

420b-2 Dance Composition II — In-depth development of movement themes for duet, trio, and larger groups. **Not for graduate credit.** Prerequisites: DANC 420a. Must have completed all Theater and Dance core courses. This restriction does not apply to non-Theater and Dance majors or minors.

433-2 Dance Pedagogy and Methodology — Principles and methodologies of dance instruction. **Not for graduate credit.** Prerequisites: DANC 214, 320, and 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.

460-1 to 2 Performance/Choreography — [Dist.FAH] 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 non-Theater and Dance majors or minors.

470-1 to 2 Independent Study in Dance — [Dist.FAH]

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. Must have completed all Theater and Dance core courses. This restriction does not apply to non-Theater and Dance majors or minors.

499-3 Senior Assessment in Dance — [Dist.FAH]

Individual/group projects demonstrating proficiency in dance and General Education skills and knowledge. **Not for graduate credit.** Prerequisites: Must have completed all Theater and Dance core courses. This restriction does not apply to non-Theater and Dance majors or minors.

Earth Science (ESCI)

111-3 Introduction to Physical Geology and Geography — [INTRO] [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.

Economics (ECON)

111-3 Principles of Macroeconomics — [INTRO] [IAI No. S3 901] Measurement and determination of national economic activity including production, income, employment, prices; role of government policy in U.S. macroeconomy. Prerequisite: two years of college preparatory mathematics or equivalent.

112-3 Principles of Microeconomics — [Dist.SS] [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. Prerequisite: 111.

221-3 Economic History of the United States — [Dist.SS] 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 — [Dist.SS] 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 — [Dist.SS] 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.

325-3 The Economics of Crime and the Criminal Justice System — Application of economic analysis to criminal behavior. Topics include: measurement and impact of crime, organized crime, cost-benefit analysis of police protection, prisons and "victimless" crime. Prerequisites: 112 or junior standing or instructor permission.

327-3 Social Economics: Issues in Income, Employment and Social Policy — [Dist.SS, 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 — [Dist.SS] An analysis of labor force participation, employment, wage determination, economic stability; investment in human capital; trade unionism; collective bargaining; public policy. Prerequisites: 111, 112.

341-3 Topics in Economics — [Dist.SS] Selected topics in economics. May be repeated up to 6 hours provided no topic is repeated.

344-3 Financial Markets — (Same as FIN 344) Functions and practices of domestic and international debt markets; recent structural changes. Asset securitization, relationships across financial markets. Management of financial intermediaries. Prerequisites: FIN 320.

345-3 Economics of the Public Sector: National — [Dist.SS] 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.

361-3 Introduction to International Economics — [Dist.SS, 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.

400-3 Quantative Methods for Economics and Business Analysis — (Same as Fin 400) Applications of mathematical tools to economic and business analysis; emphasis on using calculus and linear algebra in economic and business models. Prerequisites: 111, 112, MS 250.

415-3 Econometrics — (Same as FIN 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. Prerequisite: 301 and 302, or consent of instructor; and MS 251 or equivalent.

417-3 Business Forecasting — (Same as FIN 417) 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. Prerequisites: 111, 112, MS 251 or equivalent.

435-3 Competition and Public Policy — [Dist.SS] Economic implications of alternative market structures. Investigation of impact of concentration, economies of scale, advertising, and conglomerates on business and society. Prerequisite: 301.

439-3 Economics of Sports — Economic analysis applied to issues concerning major professional team sports such as free agency, salary caps, competitive balance, stadium contracts, and franchise relocation.

445-3 Economics of the Public Sector: State and Local — [Dist.SS] Public expenditure and taxation; intergovernmental fiscal relations; budgeting; grants; public choice. Prerequisites: 111 and 112.

450-3 International Finance — [II] (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 — [Dist.SS, II] 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 — Investigation of topic areas. Individual or small group readings under supervision of faculty member. Prerequisites: consent of instructor and department chairperson. May be repeated to a maximum of 6 hours.

Educational Psychology, Foundations and Research (EPFR)

315-1 to 3 Educational Psychology — 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, 321 or graduate standing.

451-3 Gender and Education — [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.

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.

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 adviser.

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 211a, PHYS 212a, 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, two-port 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.

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 adviser. Prerequisites: sophomore or junior standing in electrical engineering and consent of engineering co-op adviser.

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.

327-4 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.

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 211, PHYS 211b, 212b and MATH 305.

341-4 Principles of Electro-Mechanical Energy Conversion — Basic electromagnetic concepts, energy-based 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 C or 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 lecture and two lab sessions per week. Prerequisite: declared major in an engineering discipline, grade of C or better in 282.

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.

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 adviser.

404-3 Electrical and Computer Engineering Design — 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: 327 or 381.

405-2 Electrical and Computer Engineering Design Laboratory — 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 Radio-Frequency Design — Circuit design in the radio frequency band with elements of microwave engineering. Amplifiers, oscillators, mixers, impedance matching, harmonic balance analysis, optimetrics and tuning. Prerequisite: declared major in an engineering discipline, grade of C or better in 326.

427-3 Knowledge-Based Systems — (Same as CE/IME/ME 427) Engineering-oriented perspective on artificial intelligence (AI) 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: declared major in an engineering discipline, grade of C or better in 327 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.

437-3 DSP Design Projects — DSP design concepts. DSP processors and development platforms. TMS320Cxx architecture and instruction set. Design and implementation of digital filters. Sample applications. 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.

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.

477-3 Network Engineering — This course provides the 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 and CS 312.

484-3 FLSI/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.

English (ENG)

100g-1 Writing Lab – Grammar — Computerized self-instructional materials for improving writing. Not for ENG

majors or minors.

100r-1 Writing Lab – Rhetoric — Computerized self-instructional materials for improving writing. Prerequisite: 100g.

101-3 English Composition I — [SKILLS] [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 AD 090a/b or AD 092 or equivalent with a grade of C or better.

101n-3 English Composition: Non-Native Speakers — [SKILLS] Instruction and practice in expository writing, including the paragraph and short essay. NOTE: Admission only by permit from foreign student adviser or instructor.

102-3 English Composition II — [SKILLS] [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.

102n-3 English Composition: Non-Native Speakers — [SKILLS] Instruction and practice in expository writing, including the essay and research paper. NOTE: Admission only by permit from foreign student adviser or instructor. Prerequisite: A grade of C or better in 101.

111-3 Introduction to Literature — [INTRO] [IAI 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 — 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 101.

201-3 Intermediate Composition — [Dist.FAH] Practice in clear, direct, error-free writing of expository themes; emphasis on organization, rhetorical strategies, and audience. Prerequisite: A grade of C or better in 102.

202-3 Studies in Drama — [Dist.FAH] [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 — [Dist.FAH] [IAI No. H3 903] Reading and discussion of selected examples of British and American poetry, recent and traditional.

204-3 Studies in Fiction — [Dist.FAH] [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 — [Dist.FAH, 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.

207-3 Language Awareness — [Dist.FAH] Introductory course in the nature of language. Focus on English language: what language is and how people use it.

208-3 Survey of British Literature: Beginnings to 1789 — [Dist.FAH] [IAI No. H3 912] Required of majors. Major works and authors such as Beowulf, Chaucer, Spenser, Shakespeare, Milton, Donne, Jonson, Dryden, Pope, Swift, and Johnson.

209-3 Survey of British Literature: 1789 to Present — [Dist.FAH] [IAI No. H3 913] Major works and authors such as Blake, Wordsworth, Mill, Dickens, the Brownings, Shaw, Lawrence, Stoppard, and Lessing.

211-3 Survey of American Literature from Colonial Times to the Civil War — [Dist.FAH] [IAI No. H3 914] Major and minor works and authors from the Colonial, Revolutionary, and Romantic periods, including writers such as Bradstreet, Poe, Melville, Hawthorne, and Whitman.

212-3 Survey of American Literature from the Civil War to Modern Times — [Dist.FAH] [IAI No. H3 915] Major and minor works and authors since the later 19th century, including writers such as Dickinson, Frost, O'Neill, Porter, Wright, and Cather.

290-3 Introduction to Creative Writing — [Dist.FAH] Provides an introduction to the basic genres of creative writing (fiction, poetry, drama, creative non-fiction) with an emphasis on craft and the writing process. Prerequisite: C or better in Eng 102.

301-3 Introduction to Literary Theory and Criticism — [Dist.FAH] Selected literary theories, types of criticism, and theorists. Practice in interpreting and writing about literature, and in application of research methods. Prerequisite: Open only to English majors.

303-3 Literary Masterpieces: Ancient and Medieval — [Dist.FAH] Selected major works (read in English) beginning with the Greek and Roman traditions and concluding with the Middle Ages. Prerequisite: C or better in Eng 102.

304-3 Literary Masterpieces: Renaissance through Modern — [Dist.FAH, IC] Selected major works (read

in English) of European literature from the 14th century to the present. Prerequisite: C or better in Eng 102.

306-3 Introduction to the Bible — [Dist.FAH] 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 Eng 102.

307-3 Introduction to Shakespeare — [Dist.FAH] [IAI No. H3 905] Shakespeare's life; the Elizabethan theater; representative plays and poems. Prerequisite: C or better in Eng 102.

308-3 Detective Fiction — [Dist.FAH] Development of detective short story and novel from nineteenth-century beginnings to the present. Prerequisite: C or better in Eng 102.

309-3 Popular Literature — [Dist.FAH] Development of literary sub-genres which have influenced popular culture. Topics vary. Prerequisite: C or better in Eng 102.

310-3 Classical Mythology and Its Influence — [Dist.FAH] Major Greek and Roman myths: origin, nature, interpretations, and use in the modern world. Prerequisite: C or better in Eng 102.

315-3 American Nature Writing — [Dist.FAH] 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 Eng 102.

340-3 Literature of the Third World — [Dist.FAH, IC] Third World literature from antiquity to present; social, political, historical, and philosophical problems reflected in literature. Prerequisite: C or better in Eng 102.

341-3 African-American Women's Writing — [Dist.FAH, 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 Eng 102.

342-3 Movements in African-American Literature — [Dist.FAH, 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 Eng 102.

343-3 Topics in African-American Rhetoric and Oratory — [Dist.FAH, IGR] This course introduces students to essays, oratory, slave narratives, speeches and theories relative to abolitionism, captivity, religion and civil-rights-focused movements in African American texts. Repeatable to 6 credit hours. Prerequisite: C or better in

Eng 102.

344-3 Topics in Ethnic Literature — [Dist.FAH, IGR] This course will examine ethnic literatures from a socio-economic, 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 Eng 102.

345-3 Topics in African American Poetry and Folklore — [Dist.FAH, 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 Eng 102.

369-3 Grammatical Analysis — Grammatical analysis of formal spoken and written English sentences.

370-3 Fundamentals of the English Language: Sound Patterns and Word Construction — [Dist.FAH] Production of English sounds, intonation patterns, and word formations; dialectal variations; relationship of sounds to spelling. For language, speech, education majors, and all foreign students.

392-3 Fiction Writing — [Dist.FAH] 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 ENG 290.

393-3 Poetry Writing — [Dist.FAH] (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 ENG 290.

394-3 Playwriting — [Dist. FAH] Provides a close acquaintance with a range of theatrical strategies explored by playwrights, and a workshop forum for the development of student's own writing. Prerequisites: C or better in ENG 102.

400-3 Principles of Linguistics — [Dist.FAH] 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 — [Dist.FAH] Historical survey of major phonological and grammatical changes in English language from its Indo-European antecedents to the present. Prerequisites: junior standing or consent of instructor.

404-3 Chaucer: Canterbury Tales — [Dist.FAH] The Canterbury Tales read in Middle English. Prerequisite: C or

better in ENG 102; junior standing or consent of instructor.

405-3 Pragmatics — 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 — [Dist.FAH] 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 — [Dist.FAH] Principles of linguistic analysis and interpretation as applied to sound systems of language. Prerequisite: junior standing or consent of instructor.

409-3 Syntactic Analysis — [Dist.FAH] Principles of syntactic analysis and interpretation as applied to clause and sentence level structures. Prerequisite: junior standing or consent of instructor.

413-3 Spenser — [Dist.FAH] Reading and analysis of The Faerie Queene, The Shepheardes Calendar, Amoretti, and other poems. Prerequisite: C or better in Eng 102; junior standing or consent of instructor.

416-3 Language and Society — 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.

421-3 Poetry and Prose of the Medieval Period — [Dist.FAH] Verse romances, lyric poetry, drama, various English prose and poetic works from 1066-1500. Works of Chaucer excluded. Prerequisite: C or better in ENG 102; junior standing or consent of instructor.

422-3 Poetry and Prose of the Renaissance — [Dist.FAH] Early Modern English (1500-1600); works by Skelton, Wyatt, Surrey, More, Gascoigne, Spenser, Sidney. [Dramatic works of Marlowe and Shakespeare excluded.] Prerequisite: junior standing or consent of instructor. Prerequisite: C or better in ENG 102; junior standing or consent of instructor.

423-3 Poetry and Prose of the 17th Century — [Dist.FAH] Literature 1600-1660, including Donne, Jonson, Bacon, Burton, Browne, Milton. [Dramatic works of Shakespeare excluded]. Prerequisite: C or better in ENG 102; junior standing or consent of instructor.

424-3 Poetry and Prose of the Restoration and 18th Century — [Dist.FAH] Literature 1660-1784, including Johnson, Pope, Swift, and Boswell. Prerequisite: C or better in ENG 102; junior standing or consent of instructor.

426-3 Poetry and Prose of the Romantic Period — [Dist.FAH] Literature and its revolutionary socio-historical context 1780-1832: Blake, the Wordsworths, Coleridge, Byron, the Shelleys, Keats, Lamb, other prose writers. Prerequisite: C or better in ENG 102; junior standing or consent of instructor.

427-3 Poetry and Prose of the Victorian Era — [Dist.FAH] Representative poetry and prose (excluding novels) by authors such as Tennyson, the Brownings, Arnold, Carlyle, Ruskin, the Pre-Raphaelites. Prerequisite: C or better in ENG 102; junior standing or consent of instructor.

428-3 British Poetry and Prose of the Modern Era — [Dist.FAH] Representative poetry and short prose by authors such as Hardy, Housman, Hopkins, Yeats, Woolf, Sitwell, World War I poets, Auden, Larkin, Hughes. Prerequisite: C or better in ENG 102; junior standing or consent of instructor.

431-3 Major American Writers of the 19th Century — [Dist.FAH] Short prose by such authors as Emerson, Melville, Hawthorne, Poe, Crane, and Twain. Prerequisite: C or better in ENG 102; junior standing or consent of instructor.

432-3 Major American Writers of the 20th Century — [Dist.FAH] Short prose by authors such as James, Cather, Faulkner, O'Connor, Hemingway, Fitzgerald, and Wright. Prerequisite: C or better in ENG 102; junior standing or consent of instructor.

434-3 American Poetry to 1900 — [Dist.FAH] Works by colonial and 19th century American poets; includes the Puritans, Longfellow, Bryant, Poe, Emerson, Whitman, Dickinson. Prerequisite: C or better in ENG 102; junior standing or consent of instructor.

435-3 American Poetry from 1900 to 1950 — [Dist.FAH] Major trends and schools in modern poetry. Poems by authors such as Robinson, Frost, Pound, Eliot, Moore, Cummings, H.D., Stevens and Roethke. Prerequisite: C or better in ENG 102; junior standing or consent of instructor.

437-3 American Drama — [Dist.FAH] Selected texts from the emergence of the American theatre to the present. Prerequisite: C or better in ENG 102; junior standing or consent of instructor.

439-3 American Novel to Early 20th Century — [Dist.FAH] Emergence of native themes, characters, styles. Representative authors including Tyler, Brown, Cooper, Hawthorne, Melville, Stowe, James, Crane, Twain, Wharton, Howells, Dreiser. Prerequisite: C or better in ENG 102; junior standing or consent of instructor.

440-3 American Novel from Early 20th Century to

1950 — [Dist.FAH] Literary trends and historical backgrounds of modern fiction beginning with Henry James and ending with such writers as Hemingway, McCullers, and Wright. Emphasis is on literary trends and historical backgrounds. Prerequisite: C or better in ENG 102; junior standing or consent of instructor.

441a, b-3 each Contemporary American Literature — [Dist.FAH] A survey of major works and important movements from 1950 to the present with an emphasis on current writers. Different semesters cover a) poetry or b) fiction. Prerequisite: C or better in ENG 102; junior standing or consent of instructor.

443-3 Prosody — [Dist.FAH] Students will both study and write metrical poetry. All aspects of versification will be considered. For both literature majors and creative writing minors. Prerequisite: C or better in ENG 102; junior standing or consent of instructor.

446-3 Studies in African-American Literature — [Dist.FAH, 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 ENG 102; junior standing or consent of instructor.

454-3 18th Century Novel — [Dist.FAH] Representative novelists such as Defoe, Richardson, Fielding, Smollett, Sterne, Austen. Prerequisite: C or better in ENG 102; junior standing or consent of instructor.

455-3 Victorian Novel — [Dist.FAH] Representative romantic and realistic novels including works by authors such as Dickens, Thackeray, Eliot, the Brontës, Trollope, Hardy. Prerequisite: C or better in ENG 102; junior standing or consent of instructor.

456-3 20th Century British Novel — [Dist.FAH] Survey of major British novelists from 1900 to present: Joyce, Lawrence, Conrad, selected contemporary authors. Prerequisite: C or better in ENG 102; junior standing or consent of instructor.

457-3 Topics in Postcolonial Literature and Criticism — [Dist.FAH, 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 ENG 102; junior standing or consent of instructor.

458-3 Topics in English Language and Literature — [Dist.FAH] Topics in language and literature. May be repeated once for a maximum of six hours provided no topic is repeated. Prerequisite: C or better in ENG 102;

junior standing or consent of instructor.

460-3 Elizabethan and Jacobean Drama —

[Dist.FAH] Renaissance England, including Marlowe, Jonson, and others such as Beaumont and Fletcher, Middleton, Tourneur, and Webster (excluding Shakespeare). Prerequisite: C or better in ENG 102; junior standing or consent of instructor.

461-3 Restoration and 18th Century Drama —

[Dist.FAH] Representative plays from 1660 to 1800 by Etherege, Wycherley, Congreve, Dryden, Goldsmith, Sheridan. Prerequisite: C or better in ENG 102; junior standing or consent of instructor.

462-3 Modern British and Continental Drama —

[Dist.FAH, IC] European drama since 1870; includes Ibsen, Chekhov, Wilde, Shaw, Brecht, Pirandello. Prerequisite: C or better in ENG 102; junior standing or consent of instructor.

468-3 Second Language Acquisition — 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 — Examination of techniques and materials for teaching English as a Second Language in K-12 settings.

471a, b-3 each Shakespeare — [Dist.FAH] (a)

Comedies and histories, Comedies such as *A Midsummer Night's Dream*, *Merchant of Venice*, *Twelfth Night*; histories such as *Richard III*, *Richard II*, *Henry IV (Part I)*, *Henry V*. (b) Tragedies and non-dramatic works, Tragedies such as *Romeo and Juliet*, *Hamlet*, *Othello*, *King Lear*, *Macbeth*, *Antony and Cleopatra*; non-dramatic poetry including *The Rape of Lucrece* and sonnets. Prerequisite: C or better in ENG 102; junior standing or consent of instructor.

472-3 Assessment and Testing in ESL — 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 — [Dist.FAH] *Paradise Lost* and other works such as *Samson Agonistes*, *Paradise Regained*, *Lycidas*, *Comus*, and selected prose. Prerequisite: C or better in ENG 102; junior standing or consent of instructor.

474-3 Bilingualism and Bilingual Education — 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 Literature for Adolescents — Study of young adult fiction and multicultural literature by male and female

authors suitable for young adult audiences. Prerequisite: C or better in Eng 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.

478-3 Studies in Women, Language, and Literature

— [Dist.FAH, IGR] (Same as WMST 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. Topic varies; may be repeated to a maximum of 6 hours so long as topic is not repeated. Prerequisite: C or better in ENG 102; junior standing or consent of instructor.

482-3 Technology and Literature — The analysis of digital theory and digital literature—short fiction, poetry, and novels created for new media such as CD-ROMs and hypertext. Prerequisite: C or better in ENG 102; junior standing or consent of instructor.

485-3 Methods of Teaching English — Objectives, methods, materials, tests, and programs of English instruction in middle, junior, and senior high schools. Course taken normally prior to CI 315a,b and CI 352. Prerequisite: C or better in ENG 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.

487-3 Politics of Composition Pedagogy —

Pedagogical politics of the writing classroom, teacher-student power relations, relations between educational institutions and social order; development of alternative perspectives in pedagogical politics. Prerequisite: junior, senior, or graduate standing.

488-3 History of Rhetoric — Major figures, texts, and definitions of rhetoric, beginning with Classical origins and continuing into Modern era. Designed for students interested in composition, literature, and criticism. Prerequisite: junior, senior, or graduate standing.

490-3 Advanced Composition — [Dist.FAH] 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 Eng 102; junior standing or consent of instructor.

491-3 Technical and Business Writing — 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 Eng 102; junior standing or consent of instructor.

492-3 Advanced Fiction Writing — 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 ENG 392 or consent of instructor.

493-3 Advanced Poetry Writing — Advanced workshop in writing poetry. Prerequisite: C or better in ENG 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 ENG 102; junior standing or consent of instructor.

495-3 History of Critical Theory — [Dist.FAH] Major critical theories from Plato to the present, including practice in writing criticism. Prerequisite: C or better in Eng 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. Prerequisite: C or better in ENG 102; junior standing or consent of instructor.

497A-3 Senior Seminar — Variable topics course required of English majors that provides intensive study and culminates in a research paper. Prerequisite: 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 adviser and instructor.

Environmental Sciences (ENSC)

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 — [Dist. NSM] 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 — [Dist. NSM] 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.

220L-1 Principles Of Environmental Sciences Laboratory — [DIST. NSM] 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 ENSC220.

330-3 Environmental Health and Waste Management — [DIST. NSM] Sources and management of hazardous waste, sewage, and solids. Effects of waste on human health and the environment. Prerequisites: Equivalent or greater: CHEM 111, BIOL 111, ENSC 220 or consent of the instructor.

340-3 Ecosystem Management and Sustainability — [Dist. NSM] Management of natural resources, emphasizing sustainable ecosystems. Examine ecosystem functions, and the science and management of ecosystems. Prerequisites: Equivalent or greater: CHEM 111, BIOL 111, ENSC 220 or consent of the instructor.

402-3 Environmental Law — [DIST. SS] Principle issues in environmental law and the judicial interpretation of important environmental statutes. Prerequisites: 220, 330 or consent of instructor.

404-3 Regional Environment Planning — (Same as GEOG 404) Interrelationships between regions, environments, and planning. Prerequisite: senior standing or consent of instructor.

411-3 Hydrology — [Dist.NSM] (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 — [Dist.NSM] (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: 340 or consent of the instructor.

426-3 Environmental Geochemistry — [Dist.NSM] Study of exogenic environment as a geochemical system, natural circulation of water, sediment, carbon, sulfur, nitrogen, and phosphorus; assessment of human activities on these cycles. Prerequisites: GEOG 310, CHEM 113 or equivalents or consent of instructor.

445-3 Conservation Biogeography — (Same as GEOG 416) 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 — [Dist.NSM] (Same as BIOL 465.) Biogeochemistry and community structure of aquatic systems including human impacts on these systems. Laboratory includes trips to local freshwater ecosystems. Three lectures one three-hour laboratory per week. Prerequisites: 319, 365 or consent of instructor.

466-3 Terrestrial Ecosystems — [Dist.NSM] (Same as BIOL 466) Community structure, biogeochemistry and historical development of terrestrial ecosystems. Two lectures, one three-hour laboratory per week. Weekend field trips may be required. Prerequisite: BIOL 220.

472-4 Topics in Plant Physiology — (Same as BIOL 472) Topics include photosynthesis, mineral nutrition, water as related to plants growth and movement of plants. Two lectures and two laboratories per week. Prerequisites: One semester of botany or consent of instructor.

473-3 Occupational Health — [Dist.NSM] Concepts and details regarding occupational health. Prerequisite: at least one year of college chemistry.

475-3 Chemical Safety Management — [Dist.NSM] 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.

495 1-3 Topics in Environmental Sciences — Advanced topics in environmental sciences. An in-depth examination of a selected topics. May be repeated to a

maximum of 6 hours provided no topic is repeated. Prerequisite: Consent of instructor or program director.

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.

Finance (FIN)

320-3 Financial Management and Decision Making — Introduction to financial decisions; tools; models. Valuation; capital budgeting; capital structure. Operating decisions and other long and short-term applications. Prerequisites: ACCT 210, MS 251, (Accounting, Economics or Finance, CMIS 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 — (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, admitted to School of Business.

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 111, 112, MS 250; admitted to School of Business.

415-3 Econometrics — (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. Prerequisites: ECON 301 or ECON 302, MS 251; admitted to School of Business.

417-3 Business Forecasting — (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. Prerequisites: ECON 111, 112 and MS 251 or equivalent; admitted to School of Business.

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. Prerequisite: 320 or ACCT 312; admitted 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. Prerequisite: 320 or 420; admitted 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 513; admitted 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. Prerequisite: 320; admitted 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. Prerequisite: 320; admitted to School of Business.

450-3 International Finance — [II] (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. Prerequisite: 320; admitted to School of Business.

460-3 Corporate Financial Analysis and Strategy — In-depth analysis of financial data and stock prices. Study of relationship among financial markets, financial strategy, and welfare of corporate stake holders. Prerequisite: 420; admitted to School of Business.

470-3 Sport Financial Management — Financial issues relevant to sports industry. Applying financial analysis in decision making. Prerequisite: admitted 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. Prerequisite: 420; admitted 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. Prerequisites: Consent of instructor and department chairperson. Must be admitted to School of Business. May be repeated up to a total of 6 hours.

Fine Arts and Communications (FAC)

350-1 to 4 Special Topics in Fine Arts and Communications — [Dist.FAH] Topics in areas not offered in departmental curricula with emphasis on interdisciplinary studies. Varied content. May be repeated to a maximum of 12 hours. Prerequisite: consent of instructor.

450-1 to 4 Special Topics in Fine Arts and Communications — [Dist.FAH] Topics in areas not offered in departmental curricula with emphasis on interdisciplinary studies. Varied content. May be repeated to a maximum of 12 hours. **Not for graduate credit.** Prerequisite: consent of instructor.

495-1 to 12 Internship in Fine Arts and Communications — [Dist.FAH] Study, observation, and professional experience with fine art or communication unit or organization; emphasizing interdisciplinary activities not available for credit from any department in the College of Arts and Sciences. **Not for graduate credit.** Prerequisites: junior or senior status, consent of faculty sponsor.

Foreign Languages (FL)

106-3 Word Analysis: Latin and Greek Roots — [SKILLS] Analytic reasoning and logic based upon linguistic word-elements and syntax, practical application to vocabulary building.

111-a-3 Introduction to Foreign Studies: French — [INTRO, 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 — [INTRO, 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 — [INTRO, 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 — [INTRO, 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 French-Speaking World — [Intro, 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 — [Dist.FAH] Systematic methods for learning foreign language presented through lectures and practical exercises.

230-3 Foundations of Celtic Culture — [Dist.FAH, IC] Overview of ancient Celtic culture from its beginnings to its decline.

330-3 Celtic Culture: Mythology and Religion — [Dist.FAH, IC] Ancient Celtic divinities and mythology, Druidism, and Christianity.

345-3 Literature in Translation — [Dist.FAH, 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 — [Dist.FAH, IC] Survey of Irish and Welsh literature of the Celtic Heroic Age, with emphasis on the Tain and the Mabinogion.

390-3 Readings — [Dist.FAH] 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 — [Dist.FAH] 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 — [Dist.FAH] 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 — [Dist.FAH, 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.

French (FR)

101-4 Elementary French I — [SKILLS] Listening, speaking, reading, and writing. Culture of French-speaking countries. Lab included.

102-4 Elementary French II — [SKILLS, IC] Continuation of 101. Lab included. Prerequisite: 101 or placement testing.

104-8 Elementary French — [SKILLS, IC] 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 — [Dist.FAH] 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 — [Dist.FAH] [IAI No. H1 900] Continuation of 201. Lab included. Prerequisite: 201 or placement testing.

220-3 Intermediate French Conversation — [Dist.FAH] Practice intermediate-level conversation. Focus on pronunciation and fluency. Prerequisite: 102 or placement testing.

301-4 Advanced French — [Dist.FAH] In-depth grammar review. Composition and conversation. Lab included. Prerequisite: 202 or consent of instructor.

302-4 Advanced French — [Dist.FAH] Selected topics in grammar, readings, and composition. Lab included. Prerequisite: 301 or consent of instructor.

304-3 Interpretation — [Dist.FAH] 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 — [Dist.FAH] 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 — [Dist.FAH] Articulatory exercises to acquire correct pronunciation; difficulties encountered by speakers of American English. Prerequisite: 202 or consent of instructor.

311-3 Contemporary France — [Dist.FAH, IC] Significant aspects of French culture. Prerequisite: 202 or consent of instructor.

351-3 Survey of French Literature: Middle Ages through Classicism — [Dist.FAH, 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 — [Dist.FAH, IC] Representative prose, poetry, drama; 18th through 20th centuries. Prerequisite: 202 or consent of instructor.

353-3 Survey of the French Novel — [Dist.FAH, IC] 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 — [Dist.FAH] Oral and written business expression; specialized terminology and idioms. **Not for graduate credit.** Prerequisite: 301 or consent of instructor.

451-3 Studies in French Literature: Middle Ages through Renaissance — [Dist.FAH, 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 — [Dist.FAH, 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 — [Dist.FAH, 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 — [Dist.FAH] 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 — [Dist.FAH] Major and typical works.

456-3 Seminar on Women Writers — [Dist.FAH, 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 — [Dist.FAH, IC] Literature of various French-speaking nations. Taught in English. For credit in FL, term paper written in French.

461-3 French Stylistics — [Dist.FAH] 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 — [Dist. FAH,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 — [Dist.FAH] 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.

General Business Administration (GBA)

398-0 Business Internship — Practical work activity with an outside organization providing students with the opportunity to apply conceptual knowledge in the workplace. Enrollment is through the Career Development Center. Students will receive a grade of pass/nocredit.

399-0 Business Cooperative Education — Supervised work experience with an organization utilizing business skills. Formal enrollment in approved co-op course through the Career Development Center. Students will receive a grade of pass/no credit.

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.

Geography (GEOG)

111-3 Introduction to Geography — [INTRO, IC] [IAI No. S4900N] 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 — [Dist.SS, IC] Survey of major world areas in terms of population, settlement, and related human occupancy patterns.

202-3 Resource Use and Management — [Dist.NSM] Fundamentals of basic physical resource utilization; application of environmental conservation and preservation principles.

205-3 Human Geography — [Dist.SS, 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 — [Dist.NSM] [IAI No. P1909] Distribution and interrelation of Earth's physical elements. Selected topics include geodesy, climatology/meteorology, landforms.

211-3 Meteorology — [Dist.NSM] Introduction to weather controls and elements, their relationship to human activities; analysis and use of weather maps and forecasts.

230-3 Regional Geography of North America — [Dist.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.

270-1 to 2 Physical Geography Laboratory — [Dist.NSM] 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: GEOG 210, 211, or Consent of Instructor.

300-3 Geography of World Population — [Dist.SS, II] 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 — [Dist.SS, II] [IAI No. S4903N] Spatial patterns and distribution of economic activities, interaction processes, location theory. Prerequisite: consent of instructor.

310-3 Physical Geology — [Dist.NSM] Composition

and structure of the Earth; physical and chemical processes responsible for modifying the Earth and its surface. Laboratory. Prerequisite: ESCI 111 or equivalent.

312-3 Petrology and Structural Geology — Description, classification, origin of igneous rocks and geologic structures. Field trip required. Laboratory. Prerequisites: 310, MATH 120 or equivalent, or consent of instructor.

314-3 Climatology — [Dist.NSM] Survey of climatic controls and elements, classification systems, and distribution of resultant climatic regions. Relationships between climatic elements and landforms. Prerequisite: GEOG 211.

315-3 Geomorphology — [Dist.NSM] Processes and structures influencing the shape of the Earth's surface. Prerequisite: consent of instructor.

316-3 Introduction to Biogeography — [Dist.NSM] 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: GEOG 202 or 210 or consent of instructor.

320-3 Cartography — [Dist.NSM] 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 — [Dist.NSM] 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 — [Dist.SS, IC] Physical settings and geographic patterns of human activities with area descriptions of European countries and particular regions stressing human and environmental relationships.

331-3 Geography of the Commonwealth of Independent States — [Dist.SS, IC] 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 — [Dist.SS, IC] 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 — [Dist.SS, IC] 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 — [Dist.SS, IC] Physical settings and geographic patterns of human activities with area descriptions of Latin American countries and particular regions stressing human and environmental relationships.

400-3 Urban Geography — [Dist.SS] Cultural and physical factors related to distribution, interrelations, and internal spatial organization of cities. Prerequisite: Math 120 or equivalent or consent of instructor.

401-3 Geography of Development — [Dist.SS, II] 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 — [Dist.SS] 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.

406-3 Political Geography — [Dist. SS, II] 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 — [Dist. NSM] 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: GEOG314 or consent of instructor.

410-3 Soils — [Dist.NSM] 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) [Dist.NSM] 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). [Dist.NSM] 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.

413-3 Environmental Geochemistry — (Same as ENSC 426). [Dist.NSM] Study of exogenic environment as a geochemical system, natural circulation of water, sediment, carbon, sulfur, nitrogen, and phosphorus; assessment of human activities on these cycles. Prerequisite: CHEM 113 or equivalents or consent of instructor.

416-3 Conservation Biogeography — (Same as ENSC 445). 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: GEOG 316 or consent of instructor.

418-3 Geographic Information Systems (GIS) — [Dist.NSM] 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 — [Dist.NSM] This course offers an in-depth analysis of cartographic techniques, theories, and their application to the design of maps. Prerequisite: GEOG 320 or consent of instructor.

422-3 Remote Sensing and Digital Image Processing — [Dist.NSM] 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 — [Dist.NSM] 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) — [Dist.NSM] 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) — [Dist.NSM] 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 — [Dist.NSM] 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 — 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.

440-3 Teaching of Geography — 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 9 Topics in Geography — Specific topics based upon faculty expertise. May be repeated to a maximum of 9 hours. Prerequisite: major with senior standing in the geography program, or consent of instructor.

470-2 to 4 Advanced Physical Geography Laboratory — 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 adviser 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.

German (GER)

101-4 Elementary German I — [SKILLS] Listening, speaking, reading, and writing. Culture of German-speaking countries. Lab included.

102-4 Elementary German II — [SKILLS, IC] Continuation of 101. Lab included. Prerequisite: 101 or placement testing.

104-8 Elementary German — [SKILLS, IC] 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 — [Dist.FAH] 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 — [Dist.FAH] [IAI No. H1 900] Continuation of 201. Lab included. Prerequisite: 201 or placement testing.

220-3 Intermediate German Conversation — [Dist.FAH] Practice in intermediate-level conversation. Focus on pronunciation and fluency. Prerequisite: 102 or placement testing.

301-4 Advanced German — [Dist.FAH] In-depth grammar review. Composition and conversation. Lab included. Prerequisite: 202 or placement testing.

302-4 Advanced German — [Dist.FAH] Selected topics in grammar, readings, and composition. Lab included. Prerequisite: 301 or consent of instructor.

303-3 German Language Structure — [Dist.FAH] Technical aspects of German language. Prerequisite: 202 or consent of instructor.

304-3 German in Commerce and Government — [Dist.FAH] Selections from publications related to German commerce and government. Prerequisite: 202 or consent of instructor.

305-3 Technical German — Contrastive analysis; reading skills in scientific and other technical fields. Prerequisite: 202 or consent of instructor.

311-3 German Culture — [Dist.FAH, IC] Significant aspects of German culture; their development and manifestation in contemporary Germany. Prerequisite: 202 or consent of instructor.

351-3 Survey of German Literature: Middle Ages Through Romanticism — [Dist.FAH, IC] Selected readings, literary and cultural background. Prerequisite: 202 or consent of instructor.

352-3 Survey of German Literature: Realism to the Present — [Dist.FAH, IC] Selected readings, literary and cultural background. Prerequisite: 202 or consent of instructor.

353a-c-3 each Survey of a German Genre — [Dist.FAH, IC] (a) Poetry; (b) Novelle; (c) Drama. Selected readings; literary and cultural background. Prerequisite: 202 or consent of instructor.

400a,b-2 each Senior Essay in German — Supervised

(a) research; (b) preparation of an extensive scholarly paper in German. **Not for graduate credit.** Prerequisite: 202.

401-3 Development of German Structure — [Dist.FAH] 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 — [Dist.FAH] Everyday business practices in Germany. Specialized vocabulary, correspondence, cultural background. **Not for graduate credit.** Prerequisite: 301 or consent of instructor.

411-3 German Civilization — [Dist.FAH, IC] German-speaking areas of the world; anthropological and social aspects of various cultures. Prerequisite: senior standing in German.

452-3 Faust — [Dist.FAH, 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 — [Dist.FAH, 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 — 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 — [Dist. FAH,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 — [Dist.FAH] 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.

Greek (GRK)

101-4 Introduction to Greek — [SKILLS] 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 — [SKILLS, IC]

Continuation of 101. Lab included. Prerequisite: 101.

201-4 Intermediate Greek — [Dist.FAH] Development of reading facility. Reading of selected masterpieces in history, poetry, and philosophy. Lab included. Prerequisite: 102 or equivalent.

202-4 Intermediate Greek — [Dist.FAH] [IAI No. H1 900] Continuation of 201. Lab included. Prerequisite: 102 or equivalent.

499a-f-4 each Readings in Ancient Greek — [Dist.FAH] (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 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.

Health Education (HED)

201-3 Healthful Living — Personal and community health; scientific health information as a basis for developing wholesome health attitudes and practices.

205-3 Principles and Foundations Of Health Education — History and philosophy of health education; theory and practice of health education programs; role of the professional in various health promotion settings. Prerequisite: HED majors and minors only.

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 and HED majors and minors only.

313-3 Intentional and Unintentional Injuries — Overview of intentional and unintentional injury data, educational initiatives, environmental modifications, legal interventions and hazard analysis procedures. Prerequisite: HED majors and minors only.

334-2 First Aid — American National Red Cross Advanced First Aid course. Leads to Advanced First Aid and Cardio-Pulmonary Resuscitation (CPR) certification. Prerequisite: 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. Prerequisite: 201 or consent of instructor, HED majors and minors only.

355-3 Community Health — Role of community agencies and organizations in health promotion. Relationships of local, state and national health agencies;

examination of health educators' role. Prerequisite: 201 or consent of instructor, HED majors and minors only.

360-3 Nutrition, Exercise, and Weight Control — Relationship among nutritional needs, exercise, and weight control as preventive measures toward obesity, diabetes, heart disease, cancer, and other health problems. Teaching concerns and approaches. Prerequisite: 201 or consent of instructor.

380-3 Drugs and Other Mood Modifiers — Drug and non-drug alternatives that modify mood and behavior; factors influencing use, psychological effects, legal control, and teaching strategies. Prerequisite: 201 or consent of instructor, HED majors and minors only.

390-3 Theory of Practice in Community Health Education — Explores basic community organization, educational and theoretical concepts and methodologies of professional practice in community health education. Prerequisite: 205 and 355, or consent of instructor, HED majors and minors only.

391-3 Program Planning and Evaluation in Health Education — Principles and approaches to planning; implementing and evaluating health education programs. Identification and utilization of selected models and assessment strategies. Prerequisite: 390, HED majors and minors only.

400-3 The High-Risk Child — Assessment, intervention and prevention programs for high risk children and adolescents. Role of schools and communities in promoting and maintaining child health. **Not for graduate credit.** Prerequisite: HED majors and minors only.

405-3 Health Behavior and 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.** Prerequisite: 205 or consent of instructor, HED majors and minors only.

410-3 Environmental Health Education — People's relationships 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.** Prerequisite: 201 or consent of instructor, HED majors and minors only.

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.** Prerequisite: 302 or consent of instructor, HED majors and minors only.

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.** Prerequisite: 302 or consent of instructor, HED majors and minors only.

445-1 Driver Simulation — Laboratory method; programmed group instructional system requiring student reaction with filmed driving situations. **Not for graduate credit.** Prerequisite: 302 or consent of instructor, HED majors and minors only.

455-3 Introduction to Epidemiology and Biostatistics — Causes, prevention, control of communicable, chronic and degenerative diseases in various community settings. Examination of statistical measures and methods for organizing vital statistics. **Not for graduate credit.** Prerequisite: 201 and 355, or consent of instructor, HED majors and minors only.

460-3 Methods and Materials in Secondary School Health Education — Fundamental processes in teaching health education at secondary level. **Not for graduate credit.** Prerequisites: 201, 205, and junior status or consent of instructor, HED majors and minors only.

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. Prerequisite: 201 or consent of instructor, HED majors and minors only.

463-3 Consumer Health — Consumer health issues related to individual, community, and society. **Not for graduate credit.** Prerequisite: HED majors and minors only.

464-3 Death Education — Methods, resources and professional concerns. Strategies for dealing with the ethical, social and psychological dimensions of teaching about death and dying. **Not for graduate credit.** Prerequisites: 201 or consent of instructor, Interdisciplinary Studies 342 is recommended, HED majors and minors only.

465-3 Curriculum Development in Health Education — Organizational strategies, needs assessment, appraisal of current curriculum approaches; utilization of resources, objectives, content, implementation, evaluation techniques in simulated school setting. **Not for graduate credit.** Prerequisites: 201, 205 and junior standing; or consent of instructor, HED majors and minors only.

470-3 Sexuality Education — Individual, family, school, and community concerns and approaches. Physiological, psychosocial and environmental factors affecting sexuality as related to learning experience. **Not for graduate credit.** Prerequisite: 201 or consent of instructor, HED majors and minors only.

471-3 The School Health Program — Principles of organization, administration, and evaluation. Role of health educator regarding health services, environment, and instruction. **Not for graduate credit.** Prerequisites: 201, 205 and junior standing; or consent of instructor. HED majors and minors only.

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.** Prerequisite: 313 or consent of instructor, HED majors and minors only.

485-3 Curriculum Development in Driver Education — Structure, content, and approaches of curriculum development as applied to traffic safety based on Highway Transportation System Operation Task Analysis. **Not for graduate credit.** Prerequisite: 302 or consent of instructor, HED majors and minors only.

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.** Prerequisite: Consent of instructor, HED majors and minors only.

499-3 to 12 Field Study in Health Education — Supervised experiences in health agencies, clinics, government agencies and other professional settings. May be repeated to a total of 15 hours. **Not for graduate credit.** Prerequisite: Consent of instructor and Program Coordinator, HED majors and minors only.

History (HIST)

111a, b-3 each Introduction to the History of Western Civilization — [INTRO or Dist.SS, (a)IC (IAI No. S2 902), (b)II (IAI No. S2 903)] (a) The western world from the Renaissance to the Age of Napoleon; (b) The western world from the Age of Napoleon to the present. Any course taken in the History 111 a-b sequence may fulfill either an Introductory or a Distribution Science requirement in General Education. No single course in the sequence can fulfill both Introductory and Distribution course requirements.

112a,b -3 each World History — [Dist.SS, (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 secondary education certification.

113-3 Civilizations of the Ancient World — [Dist.SS, IC] Mesopotamia, Egypt, the Biblical World, Greece, and Rome from prehistory to A.D. 285.

114-3 Survey of Medieval History — [Dist.SS, IC] The Middle Ages from A.D. 285 to 1500. History of Medieval Europe, its civilization and interaction with the non-European world.

130-3 History of Black America — [Dist.SS, IGR] Social, economic, and political experience from colonial era to present; African antecedents.

200-3 United States History and Constitution: to 1877 — [Dist.SS] [IAI No. S2 900] Political, social, economic and constitutional development.

201-3 United States History and Constitution: 1877-Present — [Dist.SS] [IAI No. S2 901] Political, social, economic and constitutional development.

HIST 219-3 America in the World: American History for Teachers — [Dist. SS; II; IGR] Familiarizes teacher education students with topics in American history. Although the focus is America, the material is taught from international and intercultural perspectives. Prerequisite: major seeking certification geography, political sciences granted teachers per permission.

300-3 Special Topics — [Dist.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 — Introduction to historiography, philosophy of history, historical methodology. Required of all undergraduate students with major in history. Prerequisite: junior standing.

302-3 Ancient Egypt — [Dist.SS, IC] Civilization of Ancient Egypt from prehistoric through Greco-Roman period.

303-3 History of the Ancient Near East — [Dist.SS, IC] Ancient Near East to 330 B.C.

304-3 History of Greece — [Dist.SS, IC] From origins of ancient Greece to 30 B.C.

305a,b-3 each Comparative Asian Civilizations — [DIST. SS, IC] (a) Antiquity to the 16th Century (b) From 1600 to Present. An 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 — [Dist.SS, 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. — [Dist.SS, 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. — [Dist.SS, IC] Diversity of medieval experience in West, from the rise of papacy and Crusades to Hundred Years' War.

313-3 Witchcraft, Magic and the Occult — [Dist.SS] General theory of magic; history of magic and witchcraft in the western world.

314-3 History of Feminist Thought — [Dist.SS, II] (Same as WMST 314) History of Western women's writings on their struggle for access to education, independent religious expression, and economic and political opportunities from roughly 1350-1950.

315-3 History of Religion in Europe — [Dist.SS, IC] Religious institutions, ideas and practices in European history from antiquity to the present.

318a, b-3 each History of Russia — [Dist.SS, (a)IC, (b)II] (a) 1800-1914: Late Empire.; (b) Russia since 1914.

320-3 The Renaissance in Europe — [Dist.SS] 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 — [Dist.SS] History of 16th-century Europe; social, political and cultural dimensions of Protestant and Catholic Reformations, Witch-hunts, Scientific Revolution and Wars of Religion.

322-3 History of Italy — [Dist.SS, IC] People, movements, and ideas leading to formation of Italian nation; Italy in the world wars and thereafter.

323-3 History/Pedagogy — [Required for students seeking certification to teach history.] Introduction and uses of methods, objectives, materials, and practical approaches (with field experiences) in the teaching of history on the secondary level. Normally taken prior to CI 315a,b and CI 352. Prerequisites: Junior standing or consent of instructor.

330-3 History of Illinois — [Dist.SS] Political, social, economic and cultural history from earliest times to present.

334a, b-3 each The Westward Movement in American History — [Dist.SS] Immigration, settlements, exploitation of American land since European conquest; influence on national, economic, political, cultural and social policies. (a) To 1845; (b) Since 1845.

338-3 The Civil War and Reconstruction — [Dist.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 — [Dist.SS, 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.

342-3 History of Religion in America — [Dist.SS] Religious institutions, ideas and practices in American history.

344a, b-3 each History of American Diplomacy — [Dist.SS] 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 — [Dist.SS] 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 — [Dist.SS, (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,b-3 each History of the Middle East — [Dist.SS, (a)IC, (b)II] (a) Islamic Middle East, 600-1800; (b) Modern Middle East, 1800-Present.

356a, b-3 each History of China — [Dist.SS, (a)IC, (b)II] (a) Ancient times to 1644. (b) Modern China: 1644 to present.

358-3 History of Japan — [Dist.SS, II] Ancient times to present. Emphasis on feudal traditions, response to Western impact, modern transformation.

360a, b-3 each History of Latin America — [Dist.SS, (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 mid-19th century; (b) From mid-19th century until the present.

400-3 Topics in History — [Dist.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. **Not for graduate credit.**

403-3 Ancient Mesopotamia — [Dist. SS, IC] 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 — [Dist.SS, IC] 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 — [Dist.SS, (c)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 — [Dist.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 — [Dist.SS, 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 — [Dist.SS, 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 — [Dist.SS, 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 — [Dist.SS] 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 — [Dist.SS] 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 — [Dist.SS, (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 — [Dist.SS, (a,b)IC, (c)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 — [Dist SS, 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. Prerequisites: 200 or consent of instructor.

424-3 Topics in East European History — [Dist.SS, II] Selected topics such as the rise of nationalism, World War I, the Cold War, etc.

426-3 Topics in Russian and Soviet History — [Dist.SS, II] Selected topics in political, cultural and economic history of Russia. May be repeated to a maximum of 6 hours provided no topic is repeated.

427-3 History of South Africa — [Dist. SS, 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 — [Dist.SS, 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.

430-3 American Colonial History — [Dist.SS] Founding of colonies in British America and their development to 1763.

431-3 American Revolution and Constitution — [Dist.SS] Conflicting forces and events that led to the American Revolution, and to the Constitution. Meets Constitution requirement

434a,b-3 each Modern Twentieth Century American History — [Dist.SS] 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 — [Dist.SS, 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 — [Dist.SS, IGR] Social, economic, and political history. Emphasizes community life and development, as well as race relations.

443-3 Origins of the American Civil War — [Dist.SS] An examination of the origins of the sectional crisis and the causes of the American Civil War.

444-3 War and Reconstruction — An examination of

the American Civil War and Reconstruction, 1861 to 1877.

447-3 Approaches to Oral History — [Dist.SS] The methodology, preservation, and use of topical and life history interviews in historical research.

454-3 History of The Arab-Israeli Conflict — [Dist.SS, II] Origins and development of Zionism and Palestinian Nationalism. Relations between Israel, Palestinians and the Arab States.

460-3 History of Mexico — [Dist.SS, II] Mexican history from the winning of independence to present. Special attention will be devoted to relations with the U.S.

470-3 Preserving the American Past — [Dist.SS] 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.

Honors Scholars (HONS)

120-3 Honors Scholars Freshman Seminar — A multidisciplinary seminar examining specific topics in areas such as environment, health, education, technology, and values. Includes work on composition and oral communication.

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 Honors Scholars Coordinator.

320-3 Honors Scholars Interdisciplinary Seminar — Junior seminar examining specific topics from an interdisciplinary perspective. Includes major writing assignment.

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 Scholars Coordinator.

Humanities (HUM)

150-1 Basics of Esperanto — Introductory vocabulary and grammar of the international language developed by Zamenhof.

310a,b-3 each Esperanto — [Dist.FAH, II] Reading,

writing, speaking, and understanding the international language developed by Zamenhof. Must be taken in sequence.

400-3 Symposium in the Humanities — [Dist.FAH] 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.

450-3 Children and Death — [Dist.FAH] Mortality, dying, bereavement as related to childhood and adolescence; socio-cultural and developmental context; guidelines and resources for caregivers, counselors, educators, parents.

460-3 Hospice — [Dist.FAH] Hospice philosophy and programs of care for dying persons and their families both before and after death.

470-3 Loss, Grief, and Bereavement — [Dist.FAH] Detailed study of pre-death and post-death experiences of grief and mourning.

490-1 to 3 Topics in Death and Dying — Specified topics in depth; varied content; may be repeated to a maximum of 12 hours without repetition of topic.

Industrial and Manufacturing Engineering (IME)

106-3 Engineering Problem Solving — [SKILLS/ENGR] 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.

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 or manufacturing engineering and consent of the chairperson/program director.

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 or manufacturing engineering and consent of the chairperson/program director.

335-3 Introduction To Information Processing Systems — Systems engineering methodology applied to the design of information processing systems (operating systems, file handling, database management systems, spreadsheets, etc.) to support engineering decision making. 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.

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 — (2 hours lecture, 2 hours laboratory). 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 or manufacturing 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 solid modeling, CAD/CAM, concurrent engineering. Prerequisites: MATH 150 or equivalent, or consent of instructor.

392-1-6 Readings In Industrial Engineering — Supervised reading in selected industrial or manufacturing engineering topics. Prerequisites: Junior standing in industrial or manufacturing engineering and consent of instructor.

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 or manufacturing engineering and consent of the chairperson/program director.

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: Knowledge of Fortran, MATH 250 or consent of instructor.

427-3 Knowledge-Based Systems — (Same as CE 427, ECE 427 and ME 427.) Engineering-oriented perspective on artificial intelligence (AI) technology. General AI concepts and specifically knowledge-based (expert) systems applied to engineering problem-solving. Prerequisites: Knowledge of one of the familiar computer programming languages. (Basic, Fortran or Pascal)

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 or Manufacturing Engineering.

451-3 Methods Design and Work Measurements — (2 hours lecture, 2 hours laboratory). 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.

465-3 Design and Control of Quality Systems — (Same as STAT 488). Quality design by experimental design, determination of process capability, quality control using statistical control charts, 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: IME 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) Simulation models using a high-level simulation programming language; applications in production, inventory, queuing, other models. Prerequisites: 365 or 461 or equivalent or consent of instructor.

470-3 Manufacturing Systems — Design and analysis of manufacturing systems including automated flow lines, assembly systems, material handling systems. Group technology, fundamentals of CAD/CAM/CAPP, numerical control, steady state optimal control. Prerequisites: 365, 370, 375 and upper-division standing in industrial or manufacturing engineering or consent of instructor.

475-3 CAD/CAM/CAE (Computer Aided Design, Manufacutring and Engineering) — Advanced 3-D solid and assembly modeling in computer-integrated design and manufacturing environments, parametric and associative modeling, sketch 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 145 with C or better; ECE 210 with C or better.

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 or manufacturing engineering or consent of instructor.

480-3 Tool Engineering — This course covers topics including locating/orientation principles, clamping,

positioning and concepts required to design and fabricate tooling for machining, joining and bulk deformation processes. Prerequisites: IME 370, 345 (or concurrent)

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 or manufacturing 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, 451, and upper-division standing in industrial or manufacturing engineering or consent of instructor.

490-3 Integrated Engineering Design — (2 hours lecture, 2 hours laboratory) Individual/group laboratory or industrial projects of a research, design, or development nature which apply to engineering systems. Prerequisites: Senior standing in industrial or manufacturing engineering and consent of instructor.

492-1-6 Special Topics in Industrial and Manufacturing Engineering — Selected topics of current interest in industrial or manufacturing engineering and related fields. May include individual research projects for students with honors standing. Prerequisites: Senior standing in industrial or manufacturing engineering and consent of instructor.

Instructional Technology (IT)

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 Instruction — Opportunities to work with various computer hardware and software systems to prepare instructional materials. Emphasis is placed on design and production of effective instructional materials.

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.

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. Prerequisite: Basic computer literacy.

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.

Interdisciplinary Studies (IS)

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.

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 — [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 — [IS, II] A multi-disciplinary, team-taught introduction to modern nations of Latin America and Caribbean emphasizing history, literature, political economy, geography, anthropology. (Anthropology/Foreign Languages/Educational Leadership/History).

328-3 History and Science — [IS or Dist.NSM (not both)] Development of scientific questions in historical perspectives, relation of scientific concepts to development of culture, Ancient Greece to present. May

count toward fulfillment of Interdisciplinary or Distribution Natural Science and Mathematics requirement, but not both. (History/Physics).

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).

335-3 Early Illinois: Its Land and People — [IS] Geology and geography of prehistoric/historic Indian cultures and European settlement before 1818. Use of visual materials demonstrate relationships between people and their physical environment. (Anthropology/Geography/History).

336-3 Global Problems and Human Survival — [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 — [IS, II] 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 — [IS] 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 — [IS, IGR]
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 — [IS, IGR]
(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 — [IS, IC, IGR]
(Same as WMST 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 — [IS, IC] (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 — [IS, II] 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 — [IS, II, IC] 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 — [IS, II, IGR]
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 — [IS, IC]
Brings together political, philosophical, and social history with cultural world of art, music and drama. Center of focus is the French Revolution of 1789. (History/Music).

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. Investigates uses of technology in graphics, music, video, and literature; considers impact of the arts on technology. Computer lab work. (Theater and Dance/Computer Science).
Prerequisites: CS 108, CMIS 108, or equivalent, and junior 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.

388-3 Art and Politics in 19th Century France — [IS]
19th century France is shattered by industrialization, urbanization, commercialization. Course describes way art and politics put the world back together or escape from it.

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(s): Junior or Senior standing.

400-3 History, Culture and Language of China — [IS, IC] A travel study course in Chinese language, history, and culture offered in China. (Foreign Languages/History).

401-3 Business and Society — [IS, II] 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.

Italian (ITAL)

101-4 Elementary Italian I — [Skills] Listening, speaking, reading and writing within context of Italian culture. Lab Included.

102-4 Elementary Italian II — [Skills, IC] Continuation of 101. Lab Included.

104-8 Elementary Italian — [Skills, IC] 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 — [Dist.FAH] 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 — [Dist.FAH] 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 — [Dist. FAH, 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.

Kinesiology (KIN)

KIN 112 through KIN 270 are open to all students regardless of major.

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, strength, muscular and aerobic endurance.

114-1 Racquetball — Instruction and participation in a leisure racquet sport.

115-1 Beginning Swimming — Water adjustment and stroke techniques for the non-swimmer through advanced beginner skill level.

117-1 Badminton — Basic skill development and game play in singles and doubles.

118-1 Bowling — Basic techniques and scoring for the non-bowler through advanced beginner skill level.

119-1 Golf — Introduction to basic swing, short irons, and putting.

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 — 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 — Components and principles of fitness applied to various activities.

204-2 Jogging — Aerobic running.

205-2 Personalized Shape Up — Assessment and individualized program.

206-2 Strength Training and Flexibility — Strength training through a full range of movement.

207-2 Weight Training Level I — Free weights and exercise machines.

208-2 Weight Training Level II — Advanced technique of isotonic exercise. Prerequisite: 207 or consent of instructor.

209-2 Tumbling — Basic stunts and self-testing activities.

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 skills and individualized analysis of errors. Prerequisite: 118 or consent of instructor.

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 for power volleyball. 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.

231-2 Aquatic Exercise — Water exercises for all levels of ability.

240-2 Selected Recreational Activities — Instruction and participation in a variety of recreational games; activity or level may not be repeated.

243-2 Leisure Activities — Self-directed leisure activities with emphasis on individual planning and programming for individual/dual and non-competitive activities.

270-3 Personal Wellness — Assist in developing an understanding and appreciation for personal wellness as a lifestyle through lecture and fitness activity. Does not meet teacher education Health requirement.

Except for KIN 318, all 300- and 400-level courses are intended only for those students with a declared major or minor in Kinesiology.

300-3 Strength Training and Conditioning — Designing exercise programs for apparently healthy individuals, including children, youth, adults, and the aged. ACSM recommendation will guide this class. Prerequisite: Kinesiology majors only.

302-2 Rhythmical and Tumbling Activities for Children — Developmentally appropriate rhythmical and tumbling patterns including fundamental, creative and interpretive movements. Prerequisite: Kinesiology majors only.

303-3 Lifetime/Fitness Activities in Physical Education — Developmentally appropriate lifetime and fitness activities including elementary, middle, and high school level skills and tactics. Prerequisite: 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. Prerequisite: Kinesiology majors only.

305-3 Non-Traditional Activities in Physical Education — Developmentally appropriate physical activities including elementary, middle and high school level skills and tactics. Prerequisite: Kinesiology majors only.

307-3 Team Activities in Physical Education — Developmentally appropriate team activities including elementary, middle, and high school level skills and tactics. Prerequisite: Kinesiology majors only.

315-3 Functional Anatomy — Structural and functional basis of human performance. Prerequisite: BIOL 111, Kinesiology majors only.

316-3 Biomechanics of Human Movement — Mechanics applied to human performance; the analysis of selected movements, and the application of physical principles to the musculoskeletal system. For Exercise and Wellness majors only.

318-3 Introduction to Exercise and Wellness — Course content will include the historical and cultural aspects of exercise and wellness, and the future directions and professional opportunities within the discipline.

320-3 Motor Learning and Development — Exploration of cognitive and neurophysiological processes associated with skill acquisition and motor performance during the maturational sequences of the child's total development. Prerequisite: Kinesiology 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. Prerequisite: Kinesiology majors only.

330-3 Curriculum and Instructional Strategies for Elementary Physical Education — Understanding needs and interests of children; stressing relevant modes of instruction; exploration of divergent and convergent teaching approaches. Prerequisite: Kinesiology majors only.

332-3 Instructional Strategies in Physical Education — Introduction to planning and teaching physical education activities. Content includes lesson-planning, practice of teaching skills, and analysis of teaching. Course is intended only for those pursuing state certification in physical education teaching. Prerequisite: 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. Prerequisite: Kinesiology majors only.

370-2 Care and Prevention of Athletic Injuries —

Conditioning techniques to minimize injuries. Athletic training techniques to identify and utilize appropriate treatment modalities for sport-related injuries. Prerequisite: 315, Kinesiology majors only.

410-3 Exercise for Special Populations —

Designing exercise programs for children, youth, adults, and the aged. ACSM recommendations will guide this course. Prerequisite: Kinesiology majors only.

412-3 Body Composition —

An overview of the theories and application of body composition assessment. Prerequisite: 420 or concurrent enrollment, Kinesiology majors only.

414-3 Exercise Adherence —

An overview of the major determinants and consequences of exercise adherence and its impact on public health. Prerequisite: Kinesiology majors only.

416-3 Exercise Assessment and Programming —

Introductory course to the theoretical and practical concepts of exercise assessment, interpretation, and prescription. **Not for graduate credit.** Prerequisite: 420, Prerequisite: Kinesiology majors only..

418-3 Physical Activity and Public Health —

Impact of physical activity on individuals with chronic disease and those with disabilities. **Not for graduate credit.** Prerequisite: KIN 410, Kinesiology majors only.

420-3 Physiological Effects of Motor Activity —

Function and regulation of major human systems and responsiveness of these systems to activity. Two-hour lecture and two-hour laboratory per week. Prerequisite: 315, Kinesiology majors only.

425-3 Advanced Athletic Training —

Recognition and care of head, neck, spine, abdomen, and thorax injuries. The student will demonstrate current rehabilitation techniques including theory and usage of therapeutic modalities. **Not for graduate credit.** Prerequisites: 315, 370, and 420, Kinesiology majors only.

426-3 Advanced Physiological Effects of Motor Activity —

Investigates the integrated physiological systems and their response to external and internal stimuli during the absence of, normal, and extreme activity. **Not for graduate credit.** Prerequisite: KIN 420.

430-3 Measurement and Evaluation in Kinesiology —

Design and analyse tests for the learning domains;

determination of appropriate criteria for student evaluation. Introduction to educational statistics. **Not for graduate credit.** Prerequisite: Kinesiology majors only.

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.** Prerequisite: Kinesiology majors only.

445-3 Organization and Administration of Exercise and Wellness Programs —

Theoretical and practical aspects of selected management procedures, which relate to development, implementation, and evaluation of exercise and wellness programs. **Not for graduate credit.** Prerequisite: 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.** Prerequisite: 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.** Prerequisite: consent of instructor, Kinesiology majors only.

460-3 Internship in Exercise and Wellness —

Supervised placement in professional settings appropriate to student interests. **Not for graduate credit.** Prerequisites: KIN 420 and consent of instructor, Kinesiology majors only.

461-6 Student Teaching in Elementary Physical Education —

Practice teaching in the elementary schools. **Not for graduate credit.** Prerequisite: consent of instructor, Kinesiology majors only.

462-6 Student Teaching in Secondary Physical Education —

Practice teaching in the secondary schools. **Not for graduate credit.** Prerequisite: consent of instructor, Kinesiology majors only.

464-3 Senior Seminar in Exercise and Wellness —

In-depth consideration of selected issues related to the profession of exercise and wellness. Expectations related to professionalism, ethics, legal responsibility, and completion of Senior Assignment. **Not for graduate credit.** Prerequisite: KIN 420, Prerequisite: Kinesiology majors only.

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, and fitness assessment. May be repeated to a maximum of 6 hours provided no topic is repeated. Prerequisite: Kinesiology majors only.

499-1 to 4 Individual Research — Selection, investigation, and writing of research paper under supervision of instructor. Prerequisite: consent of instructor. Prerequisite: Kinesiology majors only.

Latin (LAT)

101-4 Introduction to Latin — [SKILLS] 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 — [SKILLS, IC] Continuation of 101. Lab included. Prerequisite: 101.

201-4 Intermediate Latin — [Dist.FAH] Basic principles; reading selections from classical, medieval, and renaissance periods. Lab included. Prerequisite: 102 or equivalent.

202-4 Intermediate Latin — [Dist.FAH] [IAI No. H1 900] Continuation of 201. Lab included. Prerequisite: 102 or equivalent.

499a-f-4 each Readings in Latin — [Dist.FAH] (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.

Liberal Studies (LIBS)

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. Prerequisite: consent of the Dean.

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.

Prerequisite: 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. Prerequisites: sophomore standing, approval by the Dean of the College of Arts and Sciences.

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. Prerequisite: 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.** Prerequisites: senior standing, consent of instructor, adviser, and program director.

Management (MGMT)

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 — [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; must be admitted to School of Business.

430-3 Human Resource Management — Theory, practice, and trends in effective utilization of human resources in organizations. Prerequisite: 340; must be admitted to School of Business.

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. Prerequisite: 430; must be admitted 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.
Prerequisite: 430; must be admitted to School of Business.

433-3 Employee Compensation and Benefits — Employee compensation principles, practices, and issues. Topics include job analysis, job evaluation, wage structures, equity, competitiveness, benefits, variable incentive compensation, and regulatory influences on compensation. Prerequisite: 430; must be admitted 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; must be admitted to School of Business.

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. Prerequisite: 341; must be admitted to School of Business.

461-3 Managing in the Global Economy/International Management — [II] Management of business in other countries and in global economy. Interaction of political, cultural, social, legal and economic forces in international business context. Prerequisite: 341; must be admitted to School of Business.

475-3 Entrepreneurship and Small Business Management — Formation of new enterprises and management of small business. Focus on identifying opportunities; starting a new enterprise; operational and organizational aspects of small business management. Prerequisite: 341; must be admitted to School of Business.

476-3 Entrepreneurship Practicum — Practicum in small business management. Application of knowledge from 475 to actual small business problems. Students work with local small businesses under faculty direction. **Not for graduate credit.** Prerequisite: 475; must be admitted to School of Business.

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. Prerequisite: 341; must be admitted to School of Business.

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.** Prerequisite: 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: 341; must be admitted to School of Business.

Management Science (MS)

250-3 Mathematical Methods for Business Analysis — 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 with a grade of C or better; Econ 112 or concurrent enrollment.

251-4 Statistical Analysis for Business Decisions — 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: 250 with a grade of C or better.

312-3 Statistical Analysis of Business Problems — Business applications of intermediate statistical techniques, including multivariate regression; emphasizes sample design, data collection and analysis; uses computer software. Prerequisite: 251. Satisfies research requirement for business programs.

490-1 to 3 Independent Study in Management Science — Investigation of topical areas in greater depth than regularly scheduled courses permit. Individual readings or research projects under supervision of a faculty member. May be repeated to a maximum of 6 hours. Prerequisite: consent of instructor and department chair.

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; admitted 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. Prerequisite: 300; admitted 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. Prerequisite: 300; admitted 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. Prerequisite: 300; admitted 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. Prerequisite: 300; admitted 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. Prerequisite: 300; admitted 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. Prerequisite: 300; admitted to the School of Business.

476-3 International Marketing — [II] Impact of tariffs, cultural/social restrictions, economic political environments, legal restrictions. International distribution pricing; multinational product planning; communications decisions; international marketing research. Prerequisite: 300; admitted 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; non-profit 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 or equivalent, senior standing; admitted to the School of Business.

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. Prerequisite: consent of instructor and department chairperson; admitted to the School of Business.

Mass Communications (MC)

201-3 Mass Media in Society — [Dist.FAH] Analysis of mass media focusing on technological, economic, governmental, and societal impact.

202-3 Writing for the Media — [Dist.FAH] 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.

203-3 Audio Production for the Media — [Dist.FAH] Holistic approach to the planning and production of audio programs. Development of technical skills, creative scriptwriting, and the professional execution of scripted and live programs in analog and digital environments. Prerequisite: 202 with a grade of C or better.

204-3 Video Production for the Media — [Dist.FAH] Planning and realization of single and multi-camera productions; studio techniques; linear and non-linear video editing. Emphasis on composition, aesthetics and storytelling. Prerequisite: 203 with a grade of C or better.

321-3 Feature Writing — [Dist.FAH] Feature writing. Advanced experience reporting and writing for newspapers, magazines, public relations, and corporate and institutional publications. Observational, experiential techniques. Prerequisite: 202 with a grade of C or better.

322-3 Copy Editing for the Media — [Dist.FAH]
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. Prerequisite: 202 with a grade of C or better.

323-3 Publication Layout and Design — [Dist.FAH]
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 with a grade of C or better.

324-3 Public Affairs Reporting — [Dist.FAH]
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 with a grade of C or better.

325-3 Fundamentals of Advertising — [Dist.FAH]
Examines regulation, media and methods, including research, copywriting and analysis of appeals and messages in advertising.

326-3 Advertising Copywriting and Design — [Dist.FAH]
Processes and practices in copywriting and layout design for print and web advertising. Prerequisites: MC 323 and 325 with a grade of C or better.

327-3 Designing and Writing for World Wide Web — [Dist.FAH]
Information and user-centered approach to web design. Hands-on experience in designing, creating and publishing textual and multi-media content for the web. Students complete a medium-sized Web project. Prerequisite: 204 with a grade of C or better.

330-3 Advanced Broadcast Writing — [Dist.FAH]
Advanced theory and writing techniques for radio and television. Topics include writing news, commercials, promos, continuity, documentary and dramatic scripts. Prerequisite: MC 204 with a grade of C or better or permission of instructor.

331-3 Electronic Media Performance — [Dist.FAH]
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 — [Dist.FAH]
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 a grade of C or better.

333-3 Advanced Video Writing and Production —

[Dist.FAH] Students write and produce features utilizing film and documentary techniques; design sets, produce newscasts, budget projects, and view pertinent productions. Prerequisite: 204 with a grade of C or better.

334-3 Electronic Media Advertising — [Dist.FAH]
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 a grade of C or better or consent of instructor.

335-3 Evolution of Entertainment Television — [Dist.FAH]
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 — Course provides overview of sports journalism and enhances students' writing, reporting, interviewing and editing skills. Students learn how to write game, advance and feature stories. Prerequisites: MC 202 with a grade of C or better.

342-3 Digital Imagery — [Dist.FAH] Introduction to creating digital images using Adobe Photoshop as the primary tool. Basics of digital image capturing and editing; techniques for image manipulation and production. Prerequisite: MC 202 with a grade of C or better.

351-3 Women in Mass Communications — [Dist.FAH, 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 — [Dist.FAH]
Development of American mass media. Struggle for freedom. Outstanding communicators, institutions. Social, political, technological influences.

401-3 Media Law and Policy — [Dist.FAH] 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 — [Dist.FAH]
Management responsibilities, challenges, and expectations in the professional environment, i.e. promotions, ratings, programming. Research paper required. Prerequisites: Junior or senior standing in Mass Communications or consent of instructor.

403-3 Media Critical Theory — [Dist.FAH] 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: Senior or junior standing in Mass Communications major.

421-3 Advertising Campaigns — [Dist.FAH] Creation and production of advertising campaigns using print and electronic media. Prerequisite: 326 or 334 with a grade of C or better.

422-3 Writing for the Corporate and Institutional Market — Reporting, writing, editing information, opinion, other presentations for publicity, publications, annual reports, public relations in general. Study of corporate publications. Prerequisite: 202 with a grade of C or better or consent of instructor. For Mass Communications majors only.

423a,b-3 each Advanced Topics in Writing for the Media — [Dist.FAH] Advanced theory and practice of writing for the print and visual media. a) Dramatic Writing, b) Other Topics.

424-3 The Literature of Journalism — [Dist.FAH] 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 — [Dist.FAH] 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 or consent of instructor.

440-3 Visual Media Analysis — [Dist.FAH] 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 — [Dist.FAH] Applications of computer and electronic media/technology systems to design multimedia products integrating text, audio, graphic, video, animation and other information for cross-platform delivery. Prerequisite: 327 with a grade of C or better or consent of instructor.

442-3 Special Studies in Visual Communications — Special independent study in visual communications combining theory and practice. **Not for graduate credit.**

447-3 Photojournalism — Stresses recognition and creation of news photographs and the skills of the photo editor; experience in shooting, developing, printing and editing photos, using digital technology. **Not for graduate credit.** Prerequisite: 342 with a grade of C or better.

451-3 Research Methods in Mass Media — [Dist.FAH] 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, Mass Communications major or consent of instructor.

452-3 New Media and Technology — [Dist.FAH] 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 — [Dist.FAH, 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 — [Dist.FAH] Historical, cultural and artistic evolution of documentary film and video making; aesthetic developments (roots of documentary filmmaking, direct cinema, cinema verite, ethnography, TV documentaries, "rocutumentary.") Prerequisite: 204 with a grade of C or better.

471-3 Special Topics in Mass Media — [Dist.FAH] Special and advanced topics in the mass media. Topics to be announced. May be repeated to a maximum of 6 hours provided no topic is repeated. **Not for graduate credit.**

475-3 Advanced Multimedia — [Dist.FAH] Digital media production techniques for 2D and 3D modeling and character animation, video compositing and high-resolution image processing; advanced design techniques for other interactive multimedia systems. Prerequisite: 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: 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, production-direction. 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.** Prerequisite: consent of instructor.

Mathematics (MATH)

106-3 Deductive Reasoning and Problem Solving — [SKILLS] Theory and practice of reasoning, formal logic, elements of scientific method. Graduation credit may be earned for MATH 106 or PHIL 106 but not for both. Prerequisite: two years of high school mathematics.

111-3 Mathematics for Life — [INTRO.] Focuses on mathematical reasoning and real-life problems. Including: management science, coding, social choice and decision making, size and shape, and modeling.

112a,b-3 each Mathematics for Elementary Teaching — These courses are designed to meet state certification standards for elementary teachers. a) [Intro] Number Sense and Algebra; b) [Dist.NSM] Probability, Statistics, and Geometry.

120-3 College Algebra — [INTRO or Dist.NSM] Cartesian coordinates, graphing, lines, parabolas, functions, inverses, rational functions, exponential and logarithmic functions, roots of polynomials, systems, matrices, determinants, counting rules, induction, binomial theorem. Prerequisites: 1 years of high school algebra or 095 or equivalent with grades of C or better; and one year of high school geometry or 085 with grades of C or better.

125-3 Pre-Calculus Mathematics with Trigonometry — [Intro or Dist.NSM] Trigonometric functions and their applications, inverse trigonometric functions, trigonometric identities and equations, laws of sines and cosines, complex numbers and deMoivre's theorem. Prerequisites: 6 semesters of high school mathematics, or 120 with a C or better.

130-4 Introduction to Calculus — [Intro or Dist.NSM] Fundamental concepts of differential/integral calculus: partial derivatives, Lagrange multipliers. Emphasis on computations/applications. May not be taken for credit by students in Science or Engineering. Prerequisites: 6 semesters of high school mathematics or 120 with grade of C or higher.

135-1 Elementary Vector Algebra — [Dist.NSM] Systems of linear equations, row reduction, determinants, Cramer's rule, vectors in planes and spaces, dot and cross products, lines and planes in three-dimensional space. This course may not be taken for credit by students who have completed MATH 152 with a D or better.

140-3 Calculus I: Part I — [Dist.NSM] Fundamental concepts of calculus: limits, continuity, derivatives. Mean value theorem for derivatives. Applications of differentiation. Math 140 and 141 may be used in place of Math 150. Prerequisites: 7 semesters of high school mathematics or 120 and 125 with grades of C or better.

141-3 Calculus I: Part II — [Dist.NSM] Integration, area under a curve, applications. Inverse functions, including exponential, logarithmic, and inverse trigonometric functions. Math 140 may be used in place of Math 150. Prerequisite: 140 with a grade of C or better.

150-5 Calculus I — [Intro or Dist.NSM] [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: 7 semesters of high school mathematics or 120 and 125 with grades of C or higher.

152-5 Calculus II — [Dist.NSM] [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.

160-5 Honors Calculus I — [Dist.NSM] Rigorous introduction to the concepts of calculus: limits, continuity, derivatives, applications, and integration. Math 160 may be used in place of Math 150. Prerequisites: 7 semesters of high school mathematics or 125, and consent of the chair of the Department of Mathematics and Statistics.

162-5 Honors Calculus II — [Dist.NSM] Rigorous study of concepts of calculus: techniques of integration, applications, infinite series, Taylor's theorem, improper integrals. Math 162 may be used in place of Math 152. Prerequisite: grade of C or better in 160 or consent of the chair of the department.

223-3 Logic and Mathematical Reasoning — Concepts and techniques essential to advanced mathematics: logic, methods of proof, sets, relations, induction, functions, cardinality, combinatorics and graph theory. Prerequisite: MATH 150 with grade of C or better. (2 Lecture hrs. plus 2 hr. lab).

224-3 Discrete Mathematics — [Dist.NSM] 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 or 141 with grade of C or better.

250-4 Calculus III — [Dist.NSM] [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 — [Dist.NSM] The development of mathematics from antiquity through the development of analytic geometry. Prerequisite: 125 with grade of C or better.

305-3 Differential Equations I — [Dist.NSM] First order ordinary differential equations, linear ordinary differential equations of higher order, systems of first order linear equations, applications. Prerequisites: 250 and PHYS 211a with grades of C or better.

310-3 Teaching of Middle School Mathematics — 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 The Teaching of Secondary Mathematics — [Dist.NSM] 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 — [Dist.NSM] Divisibility, primes, numerical functions, congruences, introduction to coding theory, continued fractions, rational approximations. Prerequisite: 125 with grade of C or better.

320-3 Introduction to Algebraic Structures — [Dist.NSM] Basic definitions, examples, and properties of algebraic structures: properties of numbers, modular arithmetic; introduction to groups, rings, and fields. Prerequisite: 223 with grade of C or better.

321-3 Linear Algebra I — [Dist.NSM] Systems of linear equations matrices and determinants; Vector spaces and linear transformations. Eigenvalues, eigenvectors, diagonalization of a symmetric matrix. Prerequisites: 135, 152 with grades of C or better.

340-3 Theory of Interest — [Dist.NSM] 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.

350-3 Introduction to Analysis — [Dist.NSM] 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 — [Dist. NSM] 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.

365-3 Numerical Methods — [Dist.NSM] Taylor's Theorem. Error analysis. Solutions of equations of one variable. Interpolation and polynomial approximation. Numerical integration and differentiation. Direct methods for solving linear systems. Students may not receive credit for both MATH 365 and 465. Prerequisite: 150 with grade of C or better.

400-3 Development of Modern Mathematics — [Dist.NSM] 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 — (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 — [Dist.NSM] Basic algebraic structures and properties. Groups: subgroups, normality and quotients, isomorphism theorems, special groups. Rings: ideals, quotient rings, special rings. Fields: extensions, finite fields, geometric constructions. Prerequisite: 320 with grade of C or better or consent of instructor.

421-3 Linear Algebra II — [Dist.NSM] 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 — [Dist.NSM] 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.

435-3 Foundations for Euclidean and Non-Euclidean Geometry — [Dist.NSM] 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 — [Dist.NSM] Curve theory, surfaces in 3-dimensional space, fundamental quadratic forms of a surface, Riemannian geometry, differential manifolds. Prerequisite: 250 with grade of C or better.

450-3 Real Analysis I — [Dist.NSM] Differentiation and Riemann integration of functions of one variable. Taylor series. Improper integrals. Lebesgue measure and integration. Prerequisite: 356 with grade of C or better.

451-3 Introduction to Complex Analysis — [Dist.NSM] Analytic functions, Cauchy-Riemann equations, harmonic functions, elements of conformal mapping, line integrals, Cauchy-Goursat theorem, Cauchy integral formula, power series, the residue theorem and applications. Prerequisites: 250, 350 with grades of C or better.

462-3 Engineering Numerical Analysis — [Dist.NSM] 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 or 141 with grades of C or better or consent of instructor.

464-3 Partial Differential Equations — [Dist.NSM] 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 — [Dist.NSM] Error analysis, solution of nonlinear equations, interpolation, numerical differentiation and integration, numerical solution of ordinary differential equations, solution of linear systems of equations. Prerequisites: 250, 305; CS 140 or 141 with grades of C or better.

466-3 Numerical Linear Algebra with Applications — [Dist.NSM] Direct and iterative methods for linear systems, approximation of eigen values, solution of nonlinear systems, numerical solution of ODE and PDE boundary value problems, function approximation. Prerequisites: 135, 250, 305, 321, CS 140 or 141 with

grades of C or better.

495a-g, 1-3 each Independent Study — [Dist.NSM] 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 adviser 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.

499-2 Senior Project — Directed study toward completing the senior assignment. Student completes a written project and gives an oral presentation. Prerequisite: 498.

Mechanical Engineering (ME)

198-0 Mechanical Engineering Work Experience I — 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.

199-0 Mechanical Engineering Cooperative Education I — Supervised 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 adviser.

244-4 Engineering Mechanics — (Same as CE 244). Static equilibrium conditions for external and internal force and moment systems. Dynamics of rigid-body planar motion. Prerequisite: PHYS 211a.

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.

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 adviser.

310-3 Thermodynamics I — Classical thermodynamics: properties of pure substances, ideal gas law, work and heat, first and second laws, entropy, Rankine cycle. Prerequisite: junior standing in engineering.

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: upper-division 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.

354-1 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, ECE 210.

356L-1 Dynamical Systems Lab — 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 macro-structure on properties; equilibrium and non equilibrium multiphase systems; metallic, ceramic and polymeric materials. Prerequisite: 310 or concurrent enrollment, 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: CE 242.

380L-1 Stress Laboratory — Measurement of stress and strain. Stress concentration. Combined loading. Material strength and failure. Prerequisite: 380 or concurrent enrollment.

398-0 Mechanical 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 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 adviser.

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: 315, 410 or concurrent enrollment.

412-3 Energy Conversion Systems — Theory, analysis and design of static and dynamic energy conversion devices; including thermoelectrics, magnetohydrodynamics, electrohydrodynamics, fuel cells. **Not for graduate credit.** Prerequisites: 312, 315.

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.

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: 410.

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.

427-3 Knowledge-Based Systems — (Same as CE 427, ECE 427, and IME 427) Engineering-oriented perspective on artificial intelligence (AI) technology. General AI concepts and specifically knowledge-based (expert) systems applied to engineering problem-solving. Prerequisites: knowledge of one of the familiar computer programming languages (BASIC, C++, Fortran or Pascal) or consent of instructor.

433-3 Fuzzy Logic And Applications — (Same as ECE 433) Fundamentals of fuzzy sets, basic operations, fuzzy arithmetic, and fuzzy systems. Examples of applications in various fields of engineering and science. Prerequisite: consent of instructor.

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.

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. Approved for graduate credit. Prerequisites: ME 262, ME 310, ECE 210.

460-3 Non-Destructive Evaluation Methods — (C/L with CE 461) Non-destructive evaluation methods for engineering materials. Ultrasonic inspection for defect detection and weld inspection. In addition, methods of dye penetration, acoustic emissions and eddy currents are studied.

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 macro-mechanical behaviors of lamina; micro- and macro-mechanical behaviors of laminate, laminated plates; case studies and design. **Not for graduate credit.** Prerequisite: 370, CE 242.

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: 380 and 350 or concurrent enrollment.

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.

Military Science (MSC)

101-2 Introduction to Military Science — Issues and competencies central to a commissioned officer's responsibilities. Establish a framework for understanding officership, leadership, and Army values.

102-2 Introduction to Military Operations — Study of the modern battlefield and its relationship to leadership, team building, and stress management. Individual communication skills and group dynamics are stressed.

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 Skills — Detailed instruction and practical exercises in leadership, team building, problem solving, planning, organizing and decision-making. Practice map reading and use of compasses. Prerequisites: 101, 102, or prior service and instructor approval.

202-3 Small Business Unit Leadership — Basic background in first aid and individual field movement skills. Instruction in use of analytical aids in planning, organizing, and controlling a changing environment. 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 — Review of skills, techniques and concepts required by the small-unit combat leader: troop leading procedures, land navigation skills, tactical organization, communications skills, and offensive tactics. Prerequisites: 101, 102, 201, 202 or prior service and instructor approval.

302-3 Small-Unit Tactics — Review of skills, techniques, and concepts required by the small-unit combat leader: troop-leading procedures, fire-control skills, communications skills, tactical analysis, and offensive tactics. Prerequisites: 101, 102, 201, 202, 301 or prior service and instructor approval.

401-3 Leadership and Management — Army operations, training management, 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 — 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.

Music (MUS)

100 -Non-Credit Convocation — Exposure to a wide variety of musical repertory as performed by students from the Department of Music.

111-3 Introduction to Music History/Literature — [INTRO] [IAI No. F1 900] Elements of music. Important composers, periods, styles and forms of music.

112a,b -1 each Class Applied Woodwinds —

Introductory methods for teaching these instruments in elementary and secondary schools. (a) Saxophone, clarinet; (b) Flute, oboe, bassoon. Must be taken in sequence.

113-1 Class Applied Brass — Introductory methods for teaching these instruments in elementary and secondary schools.

114-1 Class Applied Percussion — Introductory methods for teaching these instruments in elementary and secondary schools.

115a,b-1 each Class Applied Voice — [Dist.FAH] Training in singing, diction, and teaching voice students. Introductory. Must be taken in sequence.

116a,b -1 each Class Applied Strings — Introductory techniques and methods for teaching these instruments in elementary and secondary schools. (a) Violin, viola; (b) cello, bass.

121a,b -1 each Class Applied Piano — Practical instruction for passing proficiency examination in piano which is required for all music concentrations. Must be taken in sequence.

124-3 Foundations of Music — [Dist.FAH] 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,b -4 each Theory of Music — [Dist.FAH] Fundamentals of music through sight singing, dictation, written and keyboard harmony. Must be taken in sequence. Prerequisite: piano proficiency or concurrent enrollment in 121.

139a,b-2 each Diction for Singers — 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 required.

140, 240, 340, 440a-x - 2 or 4 each Private Applied Music — Offered at five 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 adviser for details of credit requirements. May be repeated for two semesters at each level. Students with concentration in Performance usually take 4 hours. Concentrations in Music Education and all secondary concentrations usually take 2 hours. Performance class required. 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 permit required.

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| a. Violin | i. Saxophone | q. Voice |
| b. Viola | j. Percussion | r. Organ |
| c. Cello | k. Piano | s. Harpsichord |
| d. String Bass | l. Horn | t. Harp |
| e. Flute | m. Trumpet | u. Guitar |
| f. Oboe | n. Trombone | w. Conducting |
| g. Clarinet | o. Tuba | x. Accompanying |
| h. Bassoon | p. Baritone | |

141, 241, 341, 441d-u - 2 or 4 each Private Applied Music: Jazz — Individual instruction in performance of various jazz styles. Offered at four levels in areas listed. Credit is given at 2 or 4 hours on each level. Students majoring in performance usually take 4 hours. (441 **Not for graduate credit**.) Prerequisites: for 141, admission as a Music major and audition; for higher levels, two semesters at previous level on same instrument, or permit required. Partial junior recital required of Performance majors. Full senior recital required for Performance majors.

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|--------------------|------------------|----------------|
| d. Jazz Bass | k. Jazz Piano | q. Jazz Voice |
| i. Jazz Saxophone | m. Jazz Trumpet | u. Jazz Guitar |
| j. Jazz Percussion | n. Jazz Trombone | |

144-1 Treble Chorus — Treble chorus music suitable for chamber choir and large chorus (they often collaborate with other university choral organizations). May be repeated. Open to all students..

146-1 Gospel Choir — Rehearsal and performance of gospel style music. This course provides a curricular experience for students who wish to develop their skills and expand their knowledge in this type of art form. May be repeated.

165a,b -1 each Piano Practicum — Keyboard harmony, sight reading, transposition, improvisation, technique, ensemble skills. Must be taken in sequence. Required for all keyboard majors.

221a,b -1 each Class Applied Piano — Practical instruction for passing piano proficiency required of all music concentrations. Must be taken in sequence. Prerequisite: 121b or instructor permission.

222-1 University Band — Wind/Percussion ensemble. No audition required. May be repeated up to 8 hours.

225a,b -4 each Theory of Music — [Dist.FAH] 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 — 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 instructor permission.

230-1 Beginning Improvisation — Theory and techniques, functional harmony, melodic form, special scales, tune studies, ear training, development of style. Repeatable to 4 hours. Prerequisite: Instructor permission required.

231-2 Jazz Keyboard Theory — 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..

233-1 Jazz Guitar Ensemble — May be repeated. Prerequisite: Instructor permission required.

240a-x - 2 or 4 Private Applied Music — See 140.

241d-u - 2 or 4 Private Applied Music: Jazz — See 141.

244-1 Community Choral Society — Performs literature from all eras. Emphasis on oratorio repertoire. Open to all students. May be repeated.

300-3 Music in the Elementary Classroom — [Dist.FAH] 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) — Teaching music: (a) Elementary. (b) Secondary-Vocal and General; (c) Secondary-Instrumental. For music concentration only. Must be taken in sequence. Prerequisite: 112a/b, 115a/b, 116a/b, 221a/b, 318a/b, 225b and CI 200.

305-3 Non-Western Music — [Dist.FAH] Basic elements of music and perceptive listening as they relate to non-Western music. Examines the music culture of several non-Western societies.

309a,b -3 each Orchestration — [Dist.FAH] Writing for orchestral instruments. Must be taken in sequence. Prerequisite: 225b or instructor permission.

312a,b -3 each Composition — [Dist.FAH] Original composition. Prerequisite: 225 or instructor permission.

318a,b -2 each Conducting — (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: 225b, 318a.

322-1 Wind Symphony — May be repeated up to 8 hours. Prerequisite: by audition with instructor.

326a,b -3 each Analysis — [Dist.FAH] Important musical forms and styles. Must be taken in sequence. Prerequisite: 225b.

330-1 Intermediate Improvisation — [Dist.FAH] Theory and techniques, functional harmony, melodic form, special scales, tune studies, ear training, development of style. Repeatable to 6 hours. Prerequisite: Instructor permission required.

331-2 Jazz Keyboard Theory — [Dist.FAH] 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.

333-1 Jazz Combo — 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.

337-2 Evolution of Jazz Styles — For music majors. Historical research and analysis of particular styles of jazz innovators.

338-3 Jazz — [Dist.FAH] Jazz forms and styles: development, illustrations, performance.

340a-x - 2 or 4 Private Applied Music — See 140.

341d-u - 2 or 4 Private Applied Music: Jazz — See 141.

342-1 Musical Theater Ensemble — Participation in a musical theater production under the auspices of the theater and/or music departments. May be repeated. Prerequisite: admission by audition with instructor.

355a-d -1 each Chamber Music Ensembles — (a) Brass; (b) Woodwinds; (c) Strings; (d) Percussion. May be taken in any sequence. Any part may be repeated for 8 semesters. Prerequisite: instructor permission required.

357a,b -3 each History of Western Music — [Dist.FAH] (a) [IAI No. F1 901] Antiquity through early classic period (b) [IAI No. F1 902] classic period to the present. Must be taken in sequence. Prerequisites: a)111 and 225b or permission of instructor, b) 357a.

365-1 Piano Ensemble — Vocal and instrumental accompanying, chamber music ensembles and duo-piano literature. May be repeated for credit at discretion of instructor. Prerequisite: consent of instructor.

377-1 University Symphony Orchestra — May be repeated. Prerequisite: by audition with instructor.

395a,b -3 each Music Merchandising — [Dist.FAH] 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. Prerequisite: junior standing.

401-2 Psycho-Physiology of Music — Human capacities, their relationship to musical potentials and development. Acoustical foundations of music. Prerequisite: instructor permission required.

409a,b -2 each Jazz Arranging — 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 instructor permission.

411a-c -2 each Music Literature — (a) Symphonic; (b) Choral; (c) Chamber; (d) Opera; (e) Special Areas. Study of period, composer, style or medium. May be repeated so long as topic is different. Prerequisite: 225b or instructor permission.

412a,b -3 each Composition — [Dist.FAH] Original composition. Must be taken in sequence. Prerequisite 312b or instructor permission.

413a,b -2 each Piano Literature — (a) Baroque to early Romantic; (b) Romantic and Contemporary. Prerequisite: 357b or instructor permission.

415-2 Class Applied Voice — Singing, diction, and voice pedagogy for music majors with minimal vocal experience.

420-1 Music Education Practicum — Shop laboratory course. Selection adjustments, maintenance, and repair of musical instruments.

422-1 Wind Ensemble — May be repeated. Prerequisite: By audition, concurrent enrollment in 222 and 322.

430-1 Advanced Improvisation — 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. Repeatable to 6 hours. **Not for graduate credit.** Prerequisite: 225b and 330b or equivalent.

433-1 Concert Jazz Band — May be repeated. **Not for graduate credit.** Prerequisite: by audition.

436-2 Jazz Education — Teaching jazz at elementary, secondary, and college levels, both group and individual instruction. Prerequisite: 225b or permit required.

439-2 Recording Techniques — Technical Understanding Of Equipment Used In Basic Digital

Recording Studios: microphones; equalization; mixing. Hard disk recording and 24 track recording formats. Prerequisite: consent of instructor.

440a-x -2 or 4 Private Applied Music — See 140. Prerequisite: 225b.

441d-u -2 or 4 Private Applied Music: Jazz — Individual instruction in performance of various jazz styles. Offered at four levels in areas listed. Credit is given at 2 or 4 hours on each level. Students majoring in performance usually take 4 hours. Prerequisites: two semesters of 341 on the same instrument or consent of instructor. d. Jazz Bass k. Jazz Piano n. Jazz Trombone i. Jazz Saxophone m. Jazz Trumpet u. Jazz Guitar j. Jazz Percussion .

442a,b -3 each Counterpoint — [Dist.FAH] (a) Sixteenth and Eighteenth century; (b) Modern contrapuntal techniques. Prerequisite: 225b or permit required.

444-1 Concert Choir — Emphasis on unaccompanied literature and larger choral works. Touring choir. May be repeated. **Not for graduate credit.** Prerequisite: by audition .

460a,b-2 each Opera Workshop — Skills, techniques, and literature used in performance and production of operatic scenes, operas, operettas. May be repeated for a maximum of 4 hours. Prerequisite: permit required.

461a,b-3 each Piano Teaching Techniques and Materials — [Dist.FAH] (a) Methods; (b) Materials. Problems of private studio teaching and college level teaching. Must be taken in sequence. Prerequisite: (b) 340k or permit required.

465-2 Development and Teaching of Strings — String education in Elementary and Secondary schools. Techniques of heterogeneous and homogeneous string teaching. Resource aids. May be repeated to a maximum of 8 hours. Prerequisite: consent of instructor.

466-1 Madrigal Singers — Emphasis on Renaissance Literature. Touring choir. May be repeated to a maximum of 4 hours. **Not for graduate credit.** Prerequisite: by audition.

477-1 SIUE Camerta — May be repeated. **Not for graduate credit.** Prerequisite: by audition.

481-1 to 3 Readings in Music Theory — May be repeated to 6 credits. Prerequisite: permit required.

482-1 to 3 Readings in Music History/Literature — May be repeated to 6 credits. Prerequisite: permit required.

483-1 to 3 Readings in Music Education — May be repeated to 6 credits. Prerequisite: permit required.

485-2 Piano Technology for the Pianist — 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,b or by permission of instructor.

487-2 Computer Music Workshop for Teachers — 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: permit required.

495-12 Supervised Internship in Music Merchandising — 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 — Independent research under the supervision of a faculty specialist. May be repeated to 6 credits. Prerequisite: permit required.

Nursing (NURS)

For the courses listed, the clock-to-credit-hour equivalents are:

112-2 Empowering the Nursing Student — Elective introduction to nursing profession and university community. Encourages a sense of empowerment among students by developing their abilities to actively take charge of collegiate experiences. Prerequisite: Academic advisement in School of Nursing.

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.

230-2 Introduction to Terminology, Inquiry and Writing in Nursing — Practical application of Internet and library resources, electronic search methods, APA format, medical terminology and professional writing for health care disciplines. Prerequisites: ENG 101 and 102; consent of instructor.

233-3 Professionalism in Nursing — Socialization into the role of the professional nurse within the current health care system with introduction to the nursing curricular framework and portfolio. Prerequisite: Admission to the School of Nursing

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.

240-4 Pathophysiology — 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 240a,b and BIOL 250; CHEM 120 or equivalents. Admission to the School of Nursing or consent of instructor.

241-4 Pharmacology and Nutrition — Principles of pharmacology and nutrition. Emphasizes nursing responsibilities related to pharmacologic and non-pharmacologic therapies, and nutrition for health promotion. Prerequisite: BIOL 240a,b and BIOL 250; CHEM 120a,b or equivalents; admission to School of Nursing or consent of the instructor. Concurrent enrollment in 242.

242-1 Pharmacology and Nutrition Laboratory — Nursing application of principles and processes of pharmacological and nutritional interventions. Prerequisites: admission to SON; concurrent enrollment in 241 or COI.

243-3 Foundations of Professional Practice — Foundational concepts used in nursing practice as organized by Gordon's functional health patterns. Teaching/learning principles and communication skills for health promotion. Prerequisites: admission to School of Nursing, completion of 230, 233 and 234. Concurrent enrollment in 244 and 245 or consent of instructor.

244-3 Health and Physical Assessment — Use of Grondon's Functional Health Patterns to perform health assessment of individuals with emphasis on young and middle-aged adults. Introduces therapeutic communication. Prerequisite: admission to School of Nursing; completion of 230, 233, and 234; concurrent enrollment in 244 and 245 or consent of the instructor.

245-2 Foundations and Physical Assessment Laboratory — Practice and performance of fundamental nursing skills and health assessment in a simulated setting. Prerequisites: SON Admission, 230, 233, 234; concurrent 243 and 244; COI.

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.

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.

323-5 Concepts and Processes of Professional Nursing (RN to BS only) — Focuses on curricular framework of the School of Nursing and theories and concepts integrated throughout the curriculum, including health promotion, role development, knowledge development and teaching and learning. Prerequisites: a bridge course for R.N. to B.S. students only; admission to the School of Nursing; completion of Introductory General Education courses and School of Nursing prerequisites; or consent of instructor.

335-3 Health Assessment (RN to BS only) — Collection and use of wholistic health assessment data within a chosen nursing framework to facilitate planning for health promotion. Prerequisites: a bridge course for R.N. to B.S. students only; admission to the School of Nursing; completion of Introductory General Education courses and School of Nursing prerequisites; or consent of instructor.

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.

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, 243, 244, and 245.

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.

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.

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.

416-3 Advanced Nursing Leadership Role — Integration of selected leadership skills (Interpersonal, Finance, Health care economics, and health care informatics) in advanced nursing roles within a variety of health care organizations. Prerequisite: Admission to graduate CNL program in nursing or consent of instructor.

430-3 Healthy Aging — This course examines the physiological changes of aging as a basis for exploring

commonly occurring health problems of older adults. Prerequisite: Consent of the program director.

431-3 Managing Common Health Disorders — The physiological changes of aging as a basis for exploring commonly occurring health problems of older adults. Prerequisite: 430.

432-3 Gerontologic Nursing in the Community — Focuses on the older adult in the home and other community settings. Topics covered include aging families, social issues, rural health and services. Prerequisite: 430 or consent of instructor.

433-3 End of Life Issues — Issues regarding provision of holistic care at the end of life, with emphasis on physiological, psychosocial, spiritual needs of dying elders and caregivers are addressed. Prerequisite: 430 or consent of instructor.

472-3 Nursing Research — Emphasis on research process and interpretation of findings for use as a knowledgeable consumer in developing evidence based professional nursing practice. Prerequisites: completion of 352, 353, 354, 355 or consent of instructor.

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: completion of 352, 353, 354 and 355 or consent of instructor.

475-5 Care of Populations — Nursing management of the populations' response to actual and potential health problems. **Not for graduate credit.** Prerequisites: Completion of 352, 353, 354 and 355 or consent of instructor.

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: completion of 352, 353, 354 and 355 or consent of instructor.

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.

480-4 Professional Nursing Leadership — A preceptored clinical course with seminar focused on the role of nurse leaders in change processes, quality assurance, and policy development using evidence-based frameworks. Prerequisites: 230, 240, 323, 335, 472, 475.

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: completion of 472 and concurrent enrollment in 474, 475 or 476.

482-4 Transition to Professional Practice Role — Precepted experiential course exploring the facets of practice as a professional nurse. Responsible for care provision of groups of people. **Not for graduate credit.** Prerequisites: completion of 352, 353, 354, and 355 or consent of instructor.

489-2 Senior Assignment II — Demonstrating the integration of experiences of baccalaureate and professional education through oral and written communication. **Not for graduate credit.** Prerequisite: Completion of NURS 479.

490-8 School Nurse Internship — Focuses on application of nursing process to concepts of health promotion in school settings. Prepares Registered Nurses to qualify for Type 73 School Nurse Certification through Illinois State Board of Education. **Not for graduate credit.** Prerequisites: Bachelor of Science in Nursing; completion of EPFR 315, SPE 400; completion of or concurrent enrollment in EPFR 320.

491-3 Foundations Of Nursing Management — Provides an overview of healthcare organizations and roles of nurse managers. Major principles of nursing management are examined. Population-based approach explores community healthcare services. Prerequisite: consent of Program Director.

492-3 Nursing Management and Leadership — Focuses on the knowledge and skills for financial management, budgeting and communication that relate to the role of the nurse manager. Prerequisites: Successful completion of 491, Foundations of Nursing Management.

493-3 Human Resource Management for Nurse Leaders — Examines the knowledge and skills for effective human resource management. Content covers recruitment, hiring, retention, performance appraisals, professional development, conflict management, negotiation and labor relations. Prerequisites: 491 with grade of C or better.

494-3 Health Care Finance, Budgeting and Communications — Focuses on the knowledge and skills for financial management, budgeting and communication that relate to the role of the nurse manager. Prerequisite: Successful completion of 491, Foundations of Nursing Management.

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.

Operations Research (OR)

440-3 Operations Research: Deterministic Models — (Same as IME 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 IME 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 IME 468) Design of simulation models using a high-level simulation programming language. Applications in production, inventory, queuing, other models. Prerequisite: 441 or IME 365 with grades of C or better, FORTRAN programming skills.

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 adviser and instructor.

Pharmacotherapeutics (PHPT)

724-5 Integrated Pharmacotherapeutics: CV/Renal — Addresses pathophysiology, pharmacology, medicinal chemistry, and therapeutics of the cardiovascular and renal systems. Designing, implementing, monitoring, evaluating and adjusting care plans emphasized. **Not for graduate credit.**

725-4 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.**

726-4 Integrated Pharmacotherapeutics: Endocrine/Metabolic/Nutrition — Addresses pathophysiology, pharmacology, medicinal chemistry, and therapeutics of the endocrine and metabolic systems and nutrition. Designing, implementing, monitoring, evaluating and adjusting care plans emphasized. **Not for graduate credit.**

727-5 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.**

Pharmacy Administrative Science (PHAS)

708-3 Health Care Systems — Health care providers and networks, principles for managing the medication use system and resource management, quality assessment strategies, pharmacy benefits and insurance systems. **Not for graduate credit.** Prerequisite: Open to pharmacy students only or by consent of department chair.

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. **Not for graduate credit.** Prerequisite: Open to pharmacy students only or by consent of department chair.

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. **Not for graduate credit.**

733-3 Pharmacy Law & Ethics — Covers legal requirements for medications and pharmacy practice. Ethical principles needed for pharmacy practice are also covered. **Not for graduate credit.**

Pharmacy Experiential Programs (PHEP)

714-1 Introductory Pharmacy Practice Experience I: Professional Role Observations — Provides an introduction to the practice of pharmacy with experiences in both community and institutional pharmacy practice. **Not for graduate credit.** Prerequisite: Open to pharmacy students only or by consent of department chair.

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 or by consent of department chair.

730-1 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. **Not for graduate credit.**

731-1 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.**

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.**

795-1-2 Independent Study — This course is designed to provide students with the opportunity to pursue research and study in an area of interest in pharmaceutical sciences or pharmacy practice.

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.

799O-0 Pharmacy Internship; Other Practice Settings — Students gain experience in other more non-traditional practice sites. **Not for graduate credit.** Prerequisite: Enrolled in Pharmacy School.

Pharmacy Practice (PHPR)

706-2 Introduction to Pharmacy Practice — Addressess 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 Statistics and Literature Evaluation — Addresses process of critically reviewing biomedical and pharmaceutical literature by analysing statistics and research design. Principles of outcomes research covered. Prerequisite: Open to pharmacy students only or by consent of department chair.

711-3 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.

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.

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 dept.chair.

703-2 Molecular Biology and Pharmacogenomic Principles — 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 preformulation, formulation, and manufacture including influence on patient product performance. Physicochemical factors relevant to drug administration, problem solving, and patient counseling emphasized.

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.

720-3 Biopharmaceutics and Drug Delivery III — Addresses 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.**

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.**

Philosophy (PHIL)

106-3 Critical Thinking — [SKILLS] [IAI No. H4 906] Study and practice of critical thinking and correct problem-solving methods. Organizing information, analyzing meaning, developing correct arguments, detecting fallacies, using effective methods of investigation. Graduation credit may be earned for either PHIL 106 or MATH 106, but not for both.

111-3 Introduction to Philosophy — [INTRO] [IAI No. H4 900] Eras, branches, and problems of philosophy, including metaphysics; theory of knowledge; ethics.

207-3 Probability and Decision — [SK] 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 — [Dist.FAH] Formal techniques for analyzing correct deductions. Propositional, syllogistic, class, and predicate logic with quantifiers: applications to philosophical problems.

220-3 Religion, Reason and Humanity — [Dist.FAH] Introduction to fundamental issues in study of religion, and relationship to religion, morality and human nature: Existence of God, evil, and after life.

233-3 Philosophies and Diverse Cultures — [Dist.FAH, 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.

245-3 Community Need and Social Responsibility — [Dist.FAH] (Same as PAPA 245) Examines the history, ethics and social impact of philanthropy, volunteerism and non-profit organization in the U.S. Students will be offered opportunities for service-learning.

300-3 Ancient Greek and Roman Philosophy — [Dist.FAH, IC] Major thinkers and movements from c. 600 BCE to c. 300 CE.

301-3 Medieval Western Philosophy — [Dist.FAH, IC] Major thinkers and movements from c. 4th century through 16th century.

302-3 Classical Modern Western Philosophy — [Dist.FAH, IC] Major thinkers and movements from c. 17th and 18th centuries.

303-3 Nineteenth Century Western Philosophy — [Dist.FAH, IC] Major thinkers and movements of 19th century.

305-3 Existentialism — [Dist.FAH] 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 — [Dist.FAH] Major thinkers and movements; e.g., Puritanism, revolution and democracy, transcendentalism, pragmatism, Royce, Santayana, Whitehead, and contemporary criticism.

308-3 Twentieth Century European Philosophy — [Dist.FAH, 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 — [Dist.FAH] Representative thinkers of analytic movement, such as Frege, Moore, Russell, Ryle, Wittgenstein, and others.

310-3 Theories of Knowledge — [Dist.FAH] Conceptions, sources, limits, and methods of knowing.

314-3 Philosophy of Science — [Dist.FAH] Investigation of the nature and methods of physical and social science, and their importance for individuals and

society.

320-3 Ethics — [Dist.FAH] [IAI No. H4 904] Theories of virtue, obligation, and value; discussions of individual and social morality.

321-3 Ethics in the Medical Community — [Dist.FAH] Ethical issues arising in health care contexts and practices.

322-3 Environmental Ethics — [Dist.FAH] Ethical issues arising from human interaction with the natural environment. Emphasis on exploring the human relationship with the environment and on individual environmental decision-making.

323-3 Engineering, Ethics, and Professionalism — [Dist.FAH] 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 — [Dist.FAH] Significance of art as human activity; nature and standards as evidenced in problems of criticism; relation of art to theory and knowledge.

326-3 Philosophy and Film — [Dist.FAH] Analysis of selected films with respect to philosophical issues and aesthetic, moral, metaphysical, and epistemic concerns.

328-3 Philosophy and Literature — [Dist.FAH] Various philosophical problems through philosophical and literary texts. Topics include the nature of justice, human freedom, moral psychology, and the good life..

330-3 Metaphysics — [Dist.FAH] Problems such as personal identity, mind-body relationship, causality, nature of reality.

331-3 Philosophy, Science and Religion — [Dist.FAH] 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 — [Dist.FAH] [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 — [Dist.FAH, IC] [IAI No. H5 904N] Historical and comparative study, particular attention to such non-Christian faiths as Hinduism, Buddhism, Confucianism, Taoism, and Islam.

336-3 Christian Thought — [Dist.FAH] Scholarly treatment of historical development of Christian doctrines and thought.

340-3 Social and Political Philosophy — [Dist.FAH] Philosophical problems of social and political theory and conduct.

343-3 Philosophy of Law — [Dist.FAH] Basic theories of law and discussion of legal problems in contemporary society, such as rights, justice, responsibility, punishment.

344-3 Women and Values — [Dist.FAH, 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 Philosophy and Women — [Dist.FAH] (Same as WMST 345) Theories of the nature and role of women as expounded by philosophers past and present.

346-3 Feminist Theory — [Dist.FAH, IGR] (Same as WMST 346) Social philosophy from feminist perspective. Major theoretical works of women's movement. Prerequisite: WMST 200 strongly recommended.

347-3 Philosophical Foundations of Racism — [Dist.FAH, IGR] Philosophical foundations of racial and racist thought in America from the 15th century to the present.

350-3 Philosophy of Mind — [Dist.FAH] 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 — [Dist.FAH] 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 — [Dist.FAH] 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 — [Dist.FAH] 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 — [Dist.FAH, 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 — [Dist.FAH, 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.

481-3 Media Ethics — [Dist.FAH] 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 Special Problems — Seminar for qualified seniors and graduate students to pursue specific topics in depth. Varied content. May be repeated to a maximum of 12 hours so long as no topic is repeated. Prerequisite: 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 — [Dist.FAH] Variable content course on topics in ethical theory. Including, but not limited to, topics in metaethics, normative ethics and existential ethics.

Physics (PHYS)

111-3 Concepts of Physics — [INTRO] [IAI No. P1 900] 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: satisfaction of high school math requirements for entering freshmen.

112-1 Conceptual Physics Laboratory — [Dist.NSM] Weekly introductory laboratory dealing with mechanics, heat, electricity, sound and light. Emphasis placed on measurements and data analysis. Prerequisite: concurrent enrollment in 111.

206a,b-5 each College Physics — [(a) INTRO NSM (b) Dist.NSM] Designed to meet premedical requirements and needs of students majoring in biological sciences. (a) Mechanics; fluids; heat. (b) Waves; sound; electrostatics; circuits; magnetism; electromagnetic waves, optics; modern physics. Includes weekly lab. Prerequisite: (a) MATH 125; (b) 206a.

211a,b-4 each University Physics — (a) [INTRO] [IAI No. P2 900] (b) [Dist.NSM] Calculus-based course designed to meet needs of engineering and science students. (a) Kinematics; dynamics; planar motion; work and energy; momentum; rotational motion; oscillations, gravitation, waves; (b) heat; kinetic theory of gases;

thermodynamics, electric charge; electric fields; Gauss' law; potentials; circuits; magnetic fields; electromagnetic waves. Prerequisites: (a) MATH 152 or concurrent enrollment and concurrent enrollment in 212a; (b) 211a and concurrent enrollment in 212b.

212a,b-1 each University Physics Laboratory — (a) [IAI No. P2 900L]. Physics measurements; data analysis and presentation, error analysis. (a) Velocity; acceleration; moments; potential; kinetic and heat energy; simple harmonic motion; (b) Additional experiments in classical mechanics, electromagnetism, electrical measurements; simple circuits; optics. Prerequisites: (a) concurrent enrollment in 211a; (b) 212a, concurrent enrollment in 211b.

301-3 Waves — [Dist. NSM] Oscillations, linearization, and normal modes. Classical wave equation and Fourier analysis. Phase velocity, wave packets and bandwidth theorem. Interference and diffraction. Applications to light and sound. Prerequisites: 206B or 211B. Corequisite: Math 250.

302-4 Modern Physics — [Dist.NSM] Physical optics; special relativity; photoelectric effect. Planck's radiation theory, Compton effect. Matter waves, uncertainty principle, Schrodinger solutions for confined particles, hydrogen atom; atomic, nuclear and solid-state physics. Prerequisites: 211b, MATH 250.

303-3 Thermal Physics — [Dist.NSM] Introduction to thermodynamics; fluids; kinetic theory; statistical distribution functions; applications. Prerequisites: 211b, MATH 250.

308-4 Introduction to Classical Mechanics — [Dist.NSM] Newtonian particle mechanics including oscillations, non-inertial frames, central forces, many-particle systems, rigid bodies and vibrating systems. Prerequisites: 211b, MATH 250.

312-3 Intermediate Physics Laboratory — Experimental methods in modern physics: modern experimental techniques computer-aided data acquisition; numerical methods; detectors and sensors; data and error analysis. Prerequisite: 302 or concurrent enrollment.

318-3 Theory and Applications of Electronic Measurements — [Dist.NSM] 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: 212b.

320-3 Special Relativity — [Dist.NSM] Michaelson-Morley experiment; Lorentz transformation; relativistic notions of space and time; relativistic kinematics and dynamics; relativistic view of electricity and magnetism.

Prerequisite: 302.

350-3 Energy and the Environment — [Dist.NSM] [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. Prerequisite: Satisfaction of H.S. math requirements for entering freshmen.

351-3 Music and Acoustics — [Dist.NSM] [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. Prerequisite: Satisfaction of H.S. math requirements for entering freshmen.

352-3 Physics of Modern Sound Reproduction — [Dist.NSM] [IAI No. P1 901L] Equipment and principles of operation: speakers; microphones; amplifiers; tuners; magnetic and optical recording. Includes two-hour biweekly laboratory. Prerequisite: Satisfaction of H.S. math requirements for entering freshmen.

355-3 Light and Color — [Dist.NSM] [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. Prerequisite: Satisfaction of H.S. math requirements for entering freshmen.

356-3 Astronomy — [Dist.NSM] [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. Prerequisite: satisfaction of high school math requirements for entering freshmen.

366-3 Space Physics — [Dist. NSM] Mechanics of orbital and sub-orbital flight. Physical, chemical and geologic characteristics of solar system objects determined by exploration and remote sensing. Prerequisite: 206b or equivalent.

375-1 Seminar — Selected topics in theories and applications. May be repeated to a maximum of 3 hours provided that no topic is repeated. Pass/No Credit only. Prerequisite: consent of instructor.

390-3 Junior Physics Honors — [Dist.NSM] Directed by student's Physics Honors Program adviser in independent study format on topics chosen jointly by student and adviser. Prerequisites: 302, 308, admission to the Physics Honors Program.

397-2 Junior Experimental Project — Individual experimental investigation of a topic to be agreed upon

with an instructor. May be repeated for a maximum of 4 hours. Prerequisite: Consent of Instructor.

398-2 Junior Theoretical Project — Individual experimental investigation of a topic to be agreed upon with an instructor. May be repeated for a maximum of 4 hours. Prerequisite: Consent of Instructor.

405a,b-3 each Introduction to Electromagnetic Field Theory — [Dist.NSM] Vector treatment of the theory. (a) Electrostatics in vacuum and in matter; steady currents. (b) Magnetism; magnetic materials; electromagnetic radiation. Prerequisites: (a) 308, MATH 305; (b) 405a.

410-3 Optics — [Dist.NSM] Nature of light; photometric quantities; geometrical optics; interference and diffraction; polarization; introduction to lasers; optical properties of materials. May include laboratory component. Prerequisites: 302, MATH 250.

415a,b-3 each Wave Mechanics and Atomic Physics — [Dist.NSM] (a) Foundations of quantum mechanics: wave functions; expectation values; operators; Schrodinger 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) 302, MATH 305; (b) 415a.

416-4 Principles of Quantum Mechanics — Wave functions, packets, probabilities, operators, uncertainty relations. Schrodinger equation, square wells, harmonic oscillator, barrier penetration, angular momentum, Hydrogen atom, spin, exclusion principle, multielectron atoms, molecules. Prerequisites: 301, 302, MATH 305 or instructor permission.

417-3 Nuclear Physics — [Dist.NSM] Applications of wave mechanics to the study of the atomic nucleus: scattering theory; nuclear forces; nuclear models; nuclear reactions. Prerequisite: 415b.

419-4 Introduction to Theoretical Physics — [Dist.NSM] Mathematical techniques: vectors; tensors; matrices; differential equations; special functions; boundary value problems; other selected topics. Prerequisites: 302, MATH 305.

431-3 Instructional Strategies for Particle and Rigid Body Motion — 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: 211a and CI 200 or certified K-12 teacher, or physics graduate status.

432-3 Instructional Strategies for Physical Waves and Thermodynamics — 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: 303 and CI 200, or certified K-12 teacher or physics graduate status.

433-3 Instructional Strategies for Electricity and Magnetism — 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: 211b and CI 200, or certified K-12 teacher, or physics graduate status.

434-3 Instructional Strategies for Astronomy — 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: 356 and CI 200 or certified K-12 teacher or physics graduate status.

438-1 Physics and Astronomy Education Research Seminar — 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 — 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.

450-3 Solid-State Physics — [Dist.NSM] Crystal structures and binding; lattice vibrations; electronic states; band theory of solids; semiconductors; optical properties of solids; other selected topics. Prerequisite: 415a or 416 or concurrent enrollment.

480-2 to 3 Selected Topics in Physics — Classroom instruction in a topic of special interest not covered in other courses. May be repeated to a maximum of 6 hours provided that no topic is repeated. Prerequisite: consent of the instructor.

490-3 Senior Physics Honors — [Dist.NSM] Directed by student's Physics Honors Program adviser in independent study format on topics chosen jointly by student and adviser. **Not for graduate credit.** Prerequisites: 390, 405a.

494-3 Methods of Teaching Physics in Secondary Schools — 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 — Research project directed by student's adviser results to be written up in the thesis form and presented at a departmental seminar. **Not for graduate credit.** Prerequisites: 390, 405a, 415a.

497-2 to 3 Senior Experimental Project — Individual experimental investigation of topic to be agreed upon with instructor. May be repeated to a maximum of 6 hours. Prerequisite: 308.

498-2 to 3 Senior Theoretical Project — Individual investigation of topic to be agreed upon with instructor, using mathematical techniques and often involving systematic library research and computer use. May be repeated to a maximum of 6 hours. Prerequisite: 308.

Political Science (POLS)

111-3 Introduction to Political Science — [INTRO, II] [IAI 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 — [Dist.SS] [IAI No. S5 900] Principles and practices of American political systems, constitutions, governmental institutions, political parties, interest groups, elections. Public participation; resultant policies.

300-3 Introduction to Political Analysis — [Dist.SS] Survey of models and quantitative techniques for organizing and analyzing data about politics; emphasis on applications; use of appropriate computer programs.

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 — [Dist.SS] 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 — [Dist.SS] 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 — [Dist.SS] 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 — [Dist.SS] 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 — [Dist.SS] 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 — [Dist.SS] 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 — [Dist.SS] 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 — [Dist.SS] 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 — [Dist.SS, 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 — [Dist.SS, II] Historical development, political culture, governmental processes, political participation, problems and prospects. Prerequisite: 111 or consent of instructor.

352-3 Politics of Development — [Dist.SS] 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: POLS 111 or consent of instructor.

354-3 Women & Cross-National Politics — [Dist.SS, IGR] Women as citizens and as political leaders in the areas of politics, labor, peace, war, and violence. Prerequisite: POLS 111 or consent of instructor.

355-3 Political Systems of Latin America — [Dist.SS, II] 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 — [Dist.SS, 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 — [Dist.SS, 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 — [Dist.SS] 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: POLS 111 or consent of instructor.

385-3 Introduction to Political Theory — [Dist.SS] 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 — [Dist.SS] 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 — [Dist.SS] Development, organization, and operation of federal court system. Roles and powers of courts, judges, juries, and prosecutors. Prerequisite: 112 or consent of instructor.

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 para-professional 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.

424-3 Administrative Law — [Dist.SS] Principles of administrative law in United States; extent of and

limitations on powers of government regulatory agencies. Prerequisite: 112.

429-1 to 3 Topics in Public Administration — [Dist.SS] 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 Secondary Education Teacher Certification Students with permission of instructor.

440-3 African American Politics — [Dist.SS,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 — [Dist.SS,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.

445-3 Voting and Elections — [Dist.SS] 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 — [Dist.SS] 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 — [Dist.SS, 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 — [Dist.SS, II] 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 — [Dist.SS, II] 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 — [Dist.SS, 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 — [Dist.SS, 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 — [Dist.SS, 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 — [Dist.SS] Major issues in political theory or works of one major political thinker. Prerequisite: 385 or consent of instructor.

495-3 Constitutional Law I — [Dist.SS] Analyzes Supreme Court decisions dealing with powers of national government and relationships between states and national government, particularly taxing, spending, regulating interstate commerce. Prerequisite: 390 or consent of instructor.

496-3 Constitutional Law II — [Dist.SS] 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 — [Dist.SS] Examines regulatory framework that has developed around the protection of various aspects of the environment over the past thirty years. Prerequisite: POLS 111 or consent of instructor.

499-3 Topics in Public Law — [Dist.SS] 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.

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.

461-3 Production Planning and Control — Long range and aggregate planning; master scheduling; rough cut capacity planning; MRP; CRP; lead time management; production activity control, sequencing, line balancing. Prerequisites: 315, MS 251.

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. Prerequisite: consent of instructor and department chairperson.

Psychology (PSYC)

111-3 Foundations of Psychology — [INTRO] [IAI No. S6 900] History; psychological methods and techniques; biological foundations of behavior; learning; motivation; development; personality; social; psychopathology.

200-3 Careers in Psychology — 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 — [Dist.SS] [IAI No. S6 903] Biological and psychological development of child from birth through puberty. Prerequisite: 111.

203-3 Adolescent Psychology — [Dist.SS] Biological and psychological development of adolescent; relationship between childhood development and adolescent behavior. Prerequisite: 111.

204-3 Adult Development and Aging — [Dist.SS] [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 — [Dist.SS] [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 — [Dist.SS] 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 — 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 — Methods for designing psychological studies and the statistics used to describe and interpret the data. Focus on nonexperimental method. Prerequisites: 111 and 220 with a C or better and declared major in Psychology.

305-3 Psychology of Gender — [Dist.SS, 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 — Survey in topics related to conditioning, memory, and their integration. Students encouraged to have taken PSYC 208, 220 and 221. Prerequisite: 111

313-3 Motivation — Biological, social, personality aspects of motivation in seminar and student-conducted experiments. Students are recommended to have taken 208, 220 and 221. Prerequisite: 111.

314-3 Physiological Psychology — [Dist.SS] Biological foundations of behavior; structure and function of brain related to personality; behavior; health. Prerequisite: 111 or consent of instructor.

320-3 Introduction to Industrial/Organizational Psychology — [Dist.SS] Psychological principles and methods of analysis applied to problems in contemporary work settings. Prerequisite: 111.

340-3 Theories of Personality — [Dist.SS] Review and critical evaluation of major theories and supporting evidence. Prerequisite: 111.

365-3 Group Dynamics and Individual Behavior — [Dist.SS] Small group interaction, including topics of group structure and function; group problem-solving, leadership, etc. Prerequisite: 111.

390-3 History and Systems of Psychology — Important antecedents of contemporary scientific psychology; issues, conceptual development, major schools and systems. Prerequisites: junior or senior standing, 111, or consent of the instructor.

407-3 Multicultural Issues in Psychology — [IGR] 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: Psyc 111.

420-3 Applied Behavior Analysis — 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 — Principles of psychological measurement, test construction and evaluation; problems in assessment and prediction. Prerequisite: 220.

431-3 Psychopathology — [Dist.SS] Classification, description, etiology, and treatment of disorders of personality organization and behavioral integration. Prerequisite: 111.

442-3 Adlerian Psychology: Theory and Application — [Dist.SS] 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 Applied Clinical Psychology — Teaches knowledge and skills appropriate for students seeking employment in human service fields or those considering further specified education or training in related fields. **Not for graduate credit.** Prerequisites: 111, 340, 431, or permission of the instructor.

461-3 Advanced Social Psychology — 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 — Psychological principles and techniques used in job selection, placement, training, employee evaluation. Prerequisite: 320 or MGMT 341.

474-3 Organizational Psychology — Relationship between organizational functioning and job satisfaction; motivation; performance; psychological climate in work setting. Prerequisite: 320 or consent of instructor.

487-3 Psychology of Aging — 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 — Research under faculty supervision. Only 9 hours of 491, 492, and 493 (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.

492-1 to 6 Readings in Psychology — Readings under faculty supervision. Only 9 hours of 491, 492, and 493 (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 — Supervised experiences in clinics, agencies and other professional settings. Only 9 hours of 491, 492, and 493 (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 — Offered occasionally when needed. May be repeated to a maximum of 9 hours so long as no topic is repeated. Prerequisite: consent of instructor.

498-2 Honors Coordinating Seminar — Coordinating seminar for Psychology Honors Program; students develop and report on individual and group projects involving honors level work. May be repeated for a maximum of 8 hours (only 4 hours can count towards credit for the major). **Not for graduate credit.** Prerequisite: admission to Psychology Honors Program.

499-3 Psychology Senior Honors Paper — Independent project to be completed during senior year under faculty supervision. Committee chairperson must be member of Psychology Department. **Not for graduate credit.** Prerequisites: senior standing, admission to Psychology Honors Academy.

Public Administration and Policy Analysis (PAPA)

245-3 Community Need and Social Responsibility — [Dist.FAH] (Same as PHIL 245) Examines the history, ethics and social impact of philanthropy, volunteerism and non-profit organization in the U.S. Students will be offered opportunities for service-learning.

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 — [Dist.SS] 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.

Russian (RUSS)

101-4 Elementary Russian I — [SKILLS] Listening, speaking, reading, and writing within context of Russian culture. Lab included.

102-4 Elementary Russian II — [SKILLS, IC] Continuation of 101. Lab included. Prerequisite: 101.

104-8 Elementary Russian — [SKILLS, IC] 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 — [Dist.FAH] 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 — [Dist.FAH] [IAI No. H1 900] Continuation of 201. Lab included. Prerequisite: 201 or consent of instructor.

220-3 Intermediate Russian Conversation — [Dist.FAH] Practice in intermediate-level conversation. Focus on pronunciation and fluency. Prerequisite: 102 or equivalent.

499-3 Readings in Russian — [Dist.FAH] 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.

Science (SCI)

241 a, b-3 Foundations of Science — General background in science. Laboratory emphasis on process skills, hands-on activities, and projects suitable for children

in grades K-8, (a) chemistry, physics, and design projects; (b) biology, earth science, and inquiry projects. Prerequisites: (a) 3 hours of science, CI 200, (previous or concurrent enrollment), (b) 241 a, or consent of instructor.

401-2 to 4 Selected Concepts 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. Prerequisites: two years of college science and mathematics.

405-2 to 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. Prerequisites: 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. Prerequisites: 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: one college-level chemistry course.

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. Prerequisites: two years of college science and mathematics.

431-2 to 4 Selected Topics in Earth and Environmental Sciences — 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.

435-2 to 4 Selected Techniques in Earth and Environmental Sciences — 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 Schools — 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.

452-1 Special Topics in Teaching Science in 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: two years of college science and mathematics.

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: two years of college science and mathematics.

Social Work (SOCW)

200-4 Foundations of Social Work I — [Dist.SS] 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 — [Dist.SS] Examination of social welfare settings including their functions, clientele, and methods of service provision at all client systems levels. Prerequisite: 200 or permission of program director. To be taken concurrently with 202.

202-1 Professional Development in Social Work — Examines professional development skills required in social work including professional writing using APA, critical thinking skills for decision making, and professional behavior in field. Prerequisite: 200 or consent of program director. May be taken concurrently with 200 and 201 with consent of program director.

211-2 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: SOCW 200, admission to the major or consent of program director. May be taken concurrently with SOCW 200, 201 and 202 with 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: 200 with a minimum grade of C, ECON 111, HIST 201, POLS 112.

302-3 Human Behavior in the Social Environment I — Perspectives 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: 200 with a minimum grade of C, PSYC 111, BIOL 111.

303-3 Human Behavior in the Social Environment II — Perspectives 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: 200 with a minimum grade of C, 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: admission to major, 200, 211 with minimum grade of C, and PSYC 111.

316-3 Social Work Group Practice — Study of generalist social work practice with groups; survey of selected group intervention models. Includes weekly lab. Prerequisite: 315 with a minimum grade of C.

370-3 Child Welfare — [Dist.SS] Examination of child welfare including models of intervention, types of abuse and neglect, functions of case management and issues of

cultural diversity. Recommended SOCW 220.

Prerequisite: junior or senior standing.

386-3 Health Care Issues in Social Work — [Dist.SS]

Examines contemporary health issues such as hypertension, diabetes, childhood obesity, with emphasis on HIV/AIDS and how these diseases relate to populations at risk. Prerequisite: BIOL 11; junior or senior standing.

388-3 Chemical Dependency — [Dist.SS] Examines

the bio-psycho-social perspective of chemical dependency; focusing on drug availability, effects, assessment, interventions, and public policies.

Prerequisite: Junior or senior standing.

390-3 Diversity and Issues of Social and Economic Justice — [Dist.SS, 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, 200, 201 with minimum grades of C, junior or senior standing, consent of instructor and program director.

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: 200, 201, 303, 316 with minimum grades of C.

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: 201, 301 with minimum grades of C, POLS 112.

480-4 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.

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: completion of 300 level social work courses and 400 or concurrent enrollment, concurrent enrollment in 480, 2.5 GPA, and consent of

advisor and Director of Practica.

483-4 Field Instruction II — Continuation of 482. **Not for graduate credit.** Prerequisite: 482 with grade of C or better, concurrent enrollment in 481.

487-3 Involuntary Clients — [Dist.SS] 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 — [Dist.SS]

Survey of intervention models for social work practice with individuals, families and groups. **Not for graduate credit.** Prerequisite: 315.

491-3 Mental Health — [Dist.SS] 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.

495-3 Special Topics in Social Work — [Dist.SS]

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.**

Sociology (SOC)

111-3 Introduction to Sociology — [INTRO] [IAI No.

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.

200-3 Cooperation and Conflict — [Dist.SS]

Communication, specialization, reciprocity, conflict resolution. Families, feudalism, cities, nations. Capitalism, socialism, communism, corporations, cooperatives. Learning formats: games, role playing, discussions, lectures.

201-3 Introduction to Criminal Justice — (Same as

CJ 201) [INTRO] [IAI Course No. 901] Introduction to the system of criminal justice including police, court and corrections; includes group learning exercises. Prerequisite: 111.

272-3 Criminology — (Same as CJ 272) [Dist. SS] [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 — [Dist.SS] [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 — [Dist.SS] Major classical theorists including Durkheim, Marx, and Weber, and contemporary schools of thought including functionalism; conflict; exchange; symbolic interaction.

302-3 Social Research Methods — [Dist.SS] 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 — [Dist.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 — [Dist.SS, IGR] [IAI 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 — [Dist.SS, 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 — [Dist.SS] Extent and causes of social inequality. Attention to consequences of the sustained existence of such inequalities in our everyday lives.

325-3 Sociology of Community Action — 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 — 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, Sociology 325 and consent of instructor.

335-3 Urban Sociology — [Dist.SS, 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 — [Dist.SS] Development, changing nature, and social impact of industrial organization; transition from mass production to flexible systems; employee participation and labor-management relations.

373-3 Juvenile Delinquency — [Dist.SS] [IAI No. CRJ 914] Causes, consequences, and prevention of youthful crime; historical and contemporary issues; role of family, school, and community; sporadic and chronic delinquency; prevention, treatment, and punishment.

390-3 Sociological Perspectives — [Dist. SS] 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 — [Dist.SS] [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 — [Dist.SS, IGR] (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, well-being of children.

396-1 to 6 Readings in Sociology — 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.

420-3 Leadership — [Dist.SS] Leadership as parents, teachers, counselors, employers, change agents. Group problem-solving process. Social movements. Prerequisites: senior standing or consent of instructor.

421-3 Individual and Society — [Dist.SS] 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 — [Dist.SS] (Same as CJ 422) An examination of the nature, extent, and distribution of white-collar crime as well as its causes, correlates, and control. Prerequisites: SOC/CJ 272 or consent of instructor.

431-3 Employment and Workplace Change — [Dist.SS] 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 — 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, 302, 303, 338, or consent of instructor.

441-3 Health, Illness and Society — [Dist.SS] Social determinants of sickness and death; illness as social behavior; patient-practitioner relationships, hospitals, issues in organization and delivery of health care.

444-3 Gender, Ethnicity, and Class in the Workplace — [Dist.SS, 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.

447-3 Underground Economy — [Dist.SS] Social organization of illegal markets, money laundering, illegal gambling, drug trafficking, estimated volume of unreported economic activities, methods of estimation.

470-3 Sociology of Deviance — [Dist.SS] (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 — [Dist.SS] (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 — [Dist.SS] 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.

481-3 Population Dynamics — [Dist.SS, II] National and world population growth; death rates; the demographic transition of age and gender; life expectancy; fertility; marriage; divorce; migration; urbanization.

490-3 Special Topics in Sociology — [Dist.SS] Topics not included in regular course offerings. May be repeated once to a maximum of 6 hours provided no topic is repeated.

495-3 Senior Assignment Seminar — Conduct a social research project based on proposal developed in 302 and 303. May use survey, participant observation, evaluation/assessment, or other quantitative or qualitative methods. **Not for graduate credit.** Prerequisites: Sociology seniors, 111, 301, 302, and 303.

Spanish (SPAN)

101-4 Elementary Spanish I — [SKILLS] Listening, speaking, reading, and writing. Culture of Spanish-speaking countries. Lab included.

102-4 Elementary Spanish II — [SKILLS, IC] Continuation of 101. Lab included. Prerequisite: 101 or placement testing.

104-8 Elementary Spanish — [SKILLS, IC] 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 if course will be offered.

201-4 Intermediate Spanish I — [Dist.FAH] 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 — [Dist.FAH] [IAI No. H1 900] Continuation of 201. Lab included. Prerequisite: 201 or placement testing.

220-3 Intermediate Spanish Conversation — [Dist.FAH] Practice in intermediate-level conversation. Focus on pronunciation and fluency. Prerequisite: 102 or placement testing.

292-3 Service Learning for the Beginning Language Student — [II, IC, IGR] Study abroad in a service-learning context for beginning language student. Hands-on Field Study with emphasis on cultural differences, inter-group, interdisciplinary relationships and supervised individual projects.

301-4 Advanced Spanish — [Dist.FAH] In-depth grammar review. Composition and conversation. Lab included. Prerequisite: 202 or consent of instructor.

302-4 Advanced Spanish — [Dist.FAH] Selected topics in grammar, readings, and composition. Lab included. Prerequisite: 301 or consent of instructor.

304-3 Interpretation — [Dist.FAH] 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 — [Dist.FAH] 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 — [Dist.FAH] Selections from publications related to professions and issues. Prerequisite: 202 or consent of

instructor.

307-3 Business Spanish — [Dist.FAH] Oral and written business expression; specialized terminology and idioms. Prerequisite: 202 or consent of instructor.

308-4 Spanish Linguistics — [Dist.FAH] 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 — [Dist.FAH, 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 — [Dist.FAH, IC] Analysis of significant aspects of Spanish-American culture to improve intercultural understanding and develop language skills.

351-3 Survey of Spanish Literature: Peninsular — [Dist.FAH, IC] Representative prose, poetry, drama. Prerequisite: 202 or consent of instructor.

352-3 Survey of Spanish-American Literature: Colonial Period until the Present — [Dist.FAH, IC] Representative prose, poetry, drama. Prerequisite: 202 or consent of instructor.

353-3 Survey of Drama in the Spanish Language — [Dist.FAH] Selected readings, literary and cultural background. Prerequisite: 202 or consent of instructor.

400-3 Senior Essay in Spanish — Supervised research and preparation of an extensive scholarly paper in Spanish. **Not for graduate credit.** Usually taken after completion of all major courses. Prerequisite: 202.

412a,b- 3 each U.S.A. Hispanics — [Dist.FAH] Hispanic cultures in the USA. Study of the unique contributions of a) Mexican Americans and b) Cuban Americans and Puerto Rican Americans through their language, literature and the arts. Prerequisite: 301 or consent of instructor.

451-3 Studies in Spanish Literature: Beginnings through 17th Century — [Dist.FAH, IC] Literary analysis of prose, poetry, and drama, 11th through 17th centuries. **Not for graduate credit.** Prerequisite: 301 or consent of instructor.

452-3 Studies in Literature in the Spanish Language: 17th through 20th Centuries — [Dist.FAH, IC] Continuation of 451. **Not for graduate credit.** Prerequisite: 301 or consent of instructor.

453-3 Seminar in Hispanic Literature — [Dist.FAH, IC] Critical and analytical study of masterpieces. **Not for graduate credit.** Prerequisite: 301 or consent of instructor.

454-3 to 6 Seminar — [Dist.FAH] 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 consent of instructor.

457-3 Don Quixote — [Dist.FAH, IC] Critical and analytical study of Cervantes' masterpiece. Prerequisite: 301 or consent of instructor.

461-3 Spanish Stylistics — [Dist.FAH] 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.

471-3 Spanish-American Literature: Short Stories and Novel — [Dist.FAH, IC] Representative works of last four decades of 20th century. **Not for graduate credit.** Prerequisite: 301 or consent of instructor.

491-3 to 6 Cultural and Language Workshop - Spanish — [Dist. FAH, 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 — [Dist.FAH, IC, IGR] Study abroad in a service-learning context. Hands-on field study with emphasis on target culture and language, oral and written communication and supervised individual projects. Prerequisite: 301 or permission of the instructor.

499-3 Readings in Spanish — [Dist.FAH] Selected areas of language, literature, and culture. Individual work or small groups supervised by Spanish faculty. Prerequisites: senior standing and consent of instructor.

Special Education (SPE)

200-3 Introduction to People with Disabilities in Society and School — [IGR] Surveys historical, philosophical and legal foundations of educating people with disabilities; characteristics and needs of individuals with disabilities; roles and responsibilities of professionals.

Prerequisite: Student must have accumulated 30 semester hours and have a GPA of 2.5.

400-3 The Exceptional Child — Psychology, identification, and methods of teaching individuals with exceptionalities, including individuals with learning disabilities.

401-1 Field Practicum I in Special Education — Supervised early practicum allows candidates to observe and participate in a special education classroom. Students will complete 90 clock hours. Prerequisites: 200 with a grade of B or better, admission to the Special Education program. Must be taken concurrently with 405, 450, and 471.

402-2 Field Practicum II in Special Education — Supervised practicum allows candidates to participate in two special education classrooms containing a range of disabilities. Students will complete 180 clock hours. Prerequisites: 401 with grade of C or better; must be taken concurrently with 412, 416, and 430.

405-3 Foundations of Special Education — Introduction to problems, characteristics and issues that impact the development of persons with disabilities. Prerequisites: 200, 400 with grades of B or better. Must have concurrent enrollment in 401, 450 and 471.

412-3 Assessment for Instructional Decision Making in Special Education — This course will emphasize processes and procedures for obtaining, interpreting, and analyzing information to facilitate effective educational decision-making. Prerequisite: 405 with a grade of C or better; Must be take concurrently with 402, 416, and 430.

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. Prerequisites: SPE 200, 400 with grades 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: 401, 405, 450, 471 with grade of C or better. Must be taken concurrently with 412, 430 and 402.

417-6 Reading and Language Arts Methods in Special Education — Prepares pre-service teachers with knowledge and skills in the use of effective teaching and assessment techniques within the areas of reading and language arts Prerequisites: 412 with grade of C or better; Must be taken concurrently with 418, 421 and 422.

418-3 Field Practicum III in Special Education — Supervised 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 with grade of C or better. Must be taken concurrently with 417, 418 and 422.

421-3 Mathematics Methods in Special Education — Preparation of pre-service teachers with knowledge and skill in the use of effective teaching techniques in mathematics for persons with disabilities. **Not for graduate credit.** Prerequisites: Must be taken concurrently SPE 417, 418, and 422.

422-3 Science and Social Sciences Methods in Special Education — Preparation of pre-service teachers with knowledge and skill in the use of effective teaching techniques in science and social science. Prerequisites: Admission to Special Education Program. Must be taken concurrently with 417, 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. Prerequisites: SPE 200 and 400 with grade of B or better, 401, 405, 450 and 471 with grades of C or better; must be taken concurrently with 402, 412 and 416.

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: 400.

441-3 Assessment of Preschool Exceptional Children — Instruments for assessment of academic, cognitive, perceptual-motor development. Diagnosis and remediation. Prerequisite: 440.

442-3 Methods and Procedures for Teaching Early Childhood Students with Disabilities — Preparation of teachers and teacher candidates in the knowledge and skills needed to provide educational services to early childhood students with disabilities and supports to their families. (Requires 10 hours field experience) Prerequisites: SPE 440, 441.

450-3 Instructional Planning and Professional Collaboration in Special Education — Course covers content in service delivery models, program planning and collaboration. Prerequisites: Admission to the Special Education program. Must be taken concurrently with 401, 405, 471.

470-3 Transition Planning — Overview of transition planning and programming for students with disabilities. Prerequisites: Admission to the Special Education Program, 200 and 400 with grades of B or better; 401, 405,

450, and 471 with grades of C or better. (May be taken concurrently.)

471-3 School and Family Partnerships for Special Education — This course examines educational, psychological, and political issues that arise when developing collaborative relationships between schools and families. Prerequisites: Admission to the Special Education Program, SPE 200 with a grade of B or better and must be taken concurrently with 401, 405 and 450.

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. Concurrent enrollment in 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. 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. First student teaching experience must be 12 hours; second or third student teaching experiences for 6 hours each. **Not for graduate credit.** Prerequisite: completion of all required coursework; 417 with a grade of C or better; must be taken concurrently with 481.

Speech Communication (SPC)

103-3 Interpersonal Communication Skills — [SKILLS, IGR] Principles and practices of oral communication emphasizing message formation and delivery, listening, perception, awareness of verbal and nonverbal codes, and managing conflict.

104-3 Oral Argumentation Skills — [SKILLS] Theories; strategies; techniques for researching, analysing, constructing, and presenting oral arguments for and against selected contemporary topics and issues. Emphasis on in-class presentations.

105-3 Public Speaking — [SKILLS] (IAI No. C2 900) Theories; strategies; techniques for researching, organizing, outlining, and delivering speeches. Emphasis on speaking skills in professional and academic contexts.

111-3 Introduction to Speech Communication — [INTRO] 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 — [Dist.FAH] Advanced practice in developing and delivering speeches, presentations, and briefings in public and professional settings. Models and strategies for technical presentations in a variety of contexts. Prerequisite: 104, or 105, or consent of instructor.

201-3 Small Group Communication — [Dist.FAH] Principles, theories, models, methods of group formation, discussion, and decision-making. Current problems used as focus for exploring group behavior.

203-3 Introduction to Organizational Communication — [Dist.FAH] Principles, theories, organizational skills necessary to function effectively as professionals. Topics include: motivation, goal setting, feedback, delegating, resolving conflicts.

210-3 Interracial Communication — [Dist.FAH, IGR] Personal dimensions of intergroup communication, especially the interaction of black and white Americans.

213-3 Introduction to Public Relations — [Dist.FAH] 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 — [Dist.FAH] Principles and skills in selecting, editing and presenting literature in an oral reading format. Prerequisite: 104, or 105 or consent of instructor.

300-3 Communication in Interviewing — [Dist.FAH] Forming questions, gathering information, building rapport, maintaining effective interaction in interviews. Emphasizes perspective of both interviewer and interviewee. Practice with critiqued video playbacks.

305-3 Listening — [Dist.FAH] Examination of process of experiencing meaning in messages. Opportunity to diagnose personal listening skills, learn relevant theory and models, practice effective listening styles.

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.

313-3 Applied Public Relations — [Dist.FAH] Advanced study and application of practices introduced in 213. Emphasis on developing communication materials for PR campaigns. Prerequisites: 213 and concurrent enrollment in SPC 315.

315-3 Technology Applications in Public Relations — [Dist.FAH] 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: SPC 213 and concurrent enrollment in SPC 313.

323-3 Interpersonal Communication Theory and Applications — [Dist.FAH] Explores beginning, maintaining and ending relationships. Emphasizes gender, racial and cultural influences, power, self-image and metacommunication. This course contains both theoretical and experiential approaches to personal relationships. Prerequisite: 103.

329-3 Communication Research Methods — [Dist.FAH] Contemporary methods applicable to analysis of human communication processes. Includes logic of research design and statistical reasoning. Practical experience with communication survey research design.

330-3 Theories of Communication — [Dist.FAH] Contemporary and significant historical approaches to developing and testing theories and models of the process of human communication.

331-3 Gender and Communication — [Dist.FAH, IGR] Investigation of the influences of gender on the communication process. Activities, exercises and presentations sensitize students to gender influences on verbal and nonverbal communication.

403-3 Organizational Communication Theory and Applications — [Dist.FAH] 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 Speech Communication — Transfer of student's research project or paper into oral presentation for departmental faculty/students demonstrating ability to conceptualize communication processes and deliver a professional-quality presentation. **Not for graduate credit.** Prerequisites: Concurrent enrollment in SPC 200, 329, 330 with grades of C or better, and Senior standing.

410-3 Rhetorical Theory and Criticism — [Dist.FAH] Classical and contemporary theories and methods for

analyzing and evaluating public address and other significant forms of communication.

411-3 Analysis of Political Communication — [Dist.FAH] 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 — [Dist.FAH] 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.

414-3 Public Relations Campaigns: Planning and Evaluation — [Dist.FAH] Students will develop a comprehensive planning and evaluative model for public relations' programming efforts. This course requires concurrent enrollment with SPC 415. Prerequisites: SPC 313, 315, 329.

415-3 Public Relations Campaigns: Programming and Implementation — Students will implement and monitor a special event public relations campaign for a community client. This course requires concurrent enrollment in SPC 414. Prerequisites: 200, 313, 315, 329, 330. Course fulfills Senior Project requirement for Public Relations track.

419-3 Special Topics in Speech Communication — [Dist.FAH] Variable content course emphasizing pertinent contemporary communication issues. May be repeated for total of 9 hours as long as no topic is repeated. Contact Department of Speech Communication for current topic.

423-3 Topics: Interpersonal Communication — [Dist.FAH] 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.

430-3 Persuasion and Social Influence — [Dist.FAH] 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 Patterns and Processes of Intrapersonal Communication — [Dist.FAH] Inner speech, self-concept, personality, emotions, consciousness, perceptual filters, cognitive complexity, decoding stimuli, communication apprehension, other processes within the individual which affect communication behavior.

433-3 Language and Speech Communication — [Dist.FAH] 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 — [Dist.FAH]
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.

464-3 Family Communication — [Dist.FAH]
Communication functions and behavior within families which develop, maintain, enrich, or limit family relationships.

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 Director of Internships, acceptance of organizational representative.

Speech Pathology and Audiology (SPPA)

201-3 Human Communication and Its Disorders — An 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.

312-3 Normal Language and Speech Acquisition — Typical development of language, theory and milestones including phonology, morphology, syntax, semantics, and pragmatics. Prerequisite: 231.

320-3 Anatomy and Physiology of the Speech and Hearing Mechanism — Structure and function of normal communication system. DECLARED MAJORS ONLY. Prerequisite: 201, 231.

321-3 Hearing Science — Study of the properties of sound, including theories related to auditory physiology and

perception. Prerequisite: 320.

322-3 Speech Science — Basic orientation to the physiological components underlying the propagation, acoustics, and perception of the speech signal in normal human communication. Prerequisite: 231, 320.

351-3 Communication Disorders Associated with Genetic Syndromes — This course will describe the characteristics of the speech, language and hearing disorders associated with a number of genetic syndromes. Prerequisite: BIOL 111 or equivalent.

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.

441-3 Disorders of Articulation and Phonology — Factors influencing atypical development of the phonological system including articulation; characteristics, assessment and intervention of articulatory and phonological disorders. Prerequisites: 231, 320.

442-3 Voice and Fluency Disorders — Characteristics of voice and fluency disorders including basic diagnostic and intervention strategies. **Not for graduate credit.** Prerequisite: 320.

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: 312, 320.

445-3 Language Disorders of Adults — Etiology, assessment, and intervention with individuals with acquired communication disorders. Prerequisites: 312, 320.

446-3 Clinical Observation and Procedures in Communication Disorders — Basic orientation to clinical procedures in obtaining, recording and evaluating assessment information; procedures for therapeutic intervention; and supervised clinical observations. **Not for graduate credit.** Prerequisites: 231, 312, 320, 441, 444, prior or concurrent enrollment.

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: 3.0 GPA, 441, 444, 446.

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: 441, 442, 444.

452-3 Assessment Procedures in Speech Pathology and Audiology — Procedures in obtaining, recording, and evaluating assessment results. **Not for graduate credit.** Prerequisites: 441, 442, 444.

461-3 Basic Audiometry — Principles and techniques of pure tone and speech reception and immittance audiometry testing. **Not for graduate credit.** Prerequisite or concurrent enrollment: 321.

469-1 to 3 Clinical Practicum in Audiology — Supervised clinical practice in audiometric screenings. May be repeated to a maximum of 9 Hours Pass/no credit. **Not for graduate credit.** Prerequisite: 461, GPA 3.0.

471-3 Aural Rehabilitation — Management of individuals with hearing impairments including auditory training, speech reading, and counseling. **Not for graduate credit.** Prerequisite: 461.

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.**

490-3 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. Prerequisite: 400 or consent of instructor.

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: 231, 312, 320, 441, 442, 444, 446; concurrent enrollment in 452, 471.

Statistics (STAT)

107-3 Concepts of Statistics — [SKILLS] 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 — [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 with grade of C or better.

380-3 Statistics for Applications — 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 — 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 130 or MATH 150 with grade of C or better or consent of instructor.

478-3 Time Series Analysis — Statistical analysis of time series. Regression and exponential smoothing. Box-Jenkins methodology. Prerequisites: 380 or 480b with grades of C or better.

480a,b-3 each Introduction to Mathematical Statistics — 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.

481-3 Design and Analysis of Experiments — Designs for experimentation and their statistical inference. One-way, two-way classifications, complete and incomplete block designs. Factorial and fractional factorial designs. Response surface designs. Prerequisite: 380 or 480a,b with grades of C or better.

482-3 Regression Analysis — 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 — 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 IME 463) 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 IME 365 with grades of C or better.

485-3 Stochastic Processes — 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 — 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.

487-3 Nonparametric Statistics — Distribution-free tests and estimation, randomization, sign test, signed-rank test, power, robustness, inferences concerning location and scale parameters for two independent samples, goodness-of-fit. Prerequisite: 480 a,b with grades of C or better or consent of instructor.

488-3 Design and Control of Quality Systems — (Same as IME 465) Quality design by experimental design; determination of process capability; quality control using statistical control charts; acceptance sampling. Prerequisite: 480 a,b or IME 365 with grades of C or better.

495-1 to 3 Independent Study — 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 adviser and instructor.

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.

Theater (THEA)

111-3 The Dramatic Experience — [INTRO] (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 — [Dist.FAH] 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 — [Dist.FAH] 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 — [Dist.FAH] Principles of dramatic action as exemplified in selected plays. Relationships between theatrical process and dramatic form in tragedy and comedy.

141-3 Film Analysis — [Dist.FAH] Fundamentals of film analysis studied as a skill essential to the understanding of narrative visual media.

150-3 Core: Scene Design and Construction — [Dist.FAH] Designing and executing of scenery used in theater productions. Laboratory and production work are required.

160-3 Core: Costume Design and Construction — [Dist.FAH] Designing and executing of costumes used in theater productions. Laboratory and production work are required.

170-3 Core: Lighting and Sound — [Dist.FAH] Designing and executing of lights and sound used in theater productions. Laboratory and production work are required.

199-0 Theater Production — 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. Prerequisite: Consent of instructor.

201a,b-3 each Core: History of the Theater — [Dist.FAH] [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 — [Dist.FAH] 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

— [Dist.FAH] Exercises and scene work introducing external techniques for physical/vocal characterization and comedy. Prerequisites: 112a,b.

210b-2 Improvisation — [Dist.FAH] 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

— [Dist.FAH] Principles of stage movement and theatrical vocal technique: vocal production, vocal and physical characterization, introduction to dialect study and stage combat. Prerequisites: 112a,b and consent of instructor.

215b-3 Stage Combat — [Dist.FAH] 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 — [Dist.FAH] 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 — 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 — "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 — [Dist.FAH] 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 — [Dist.FAH] 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 — Traditional and contemporary techniques including layout, cartooning, lining, textures, color. Studio work. Prerequisite: 150,160 recommended.

265-2 Theater Makeup — 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 — Sound control, microphone amplification, acoustics, sound effects. Practical operation with microphones, turntables, tape decks, and loudspeakers.

276-1 to 3 Projects in Stage Management — 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 — 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 — 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 — 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 (TAP).

309-3 Musical Theater Workshop — [Dist.FAH] 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 — 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. Must have completed all Theater and Dance core courses. This restriction does not apply to non-Theater and Dance majors or minors.

310b-3 Acting V — International/Experimental Styles — [IC] Utilization of international and experimental performance techniques, designed to promote global and contemporary aesthetics and abilities. Prerequisites: junior standing or 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.

312-3 Multi-Cultural Theater in America — [Dist.FAH, IGR] Facilitate understanding of multicultural theater in America through discussion, performance, and play readings centered around artists of different ethnic backgrounds. Prerequisite: Must have completed all Theater and Dance core courses. This restriction does not apply to non-Theater and Dance majors or minors.

315a-3 Dialects for the Stage — Foreign and American dialects. Scenes and monologues performed in dialect. International Phonetic Alphabet (IPA) introduced. Prerequisite: 112a. Must have completed all Theater and Dance core courses. This restriction does not apply to non-Theater and Dance majors or minors.

315b-3 Advanced Movement — Character masks, neutral masks, and other movement techniques are used for characterization, awareness, body, and stage presence. Prerequisite: 112b, 215b. Must have completed all Theater and Dance core courses. This restriction does not apply to non-Theater and Dance majors or minors.

350-3 Scene Design — [Dist.FAH] Advanced study of rendering techniques. Design projects, critique sessions, and research techniques. May be taken twice. Prerequisite: THEA 250. Must have completed all Theater and Dance core courses. This restriction does not apply to non-Theater and Dance majors or minors.

360-3 Costume Design — [Dist.FAH] Theory, rendering techniques, history of dress and costume construction techniques, research for period silhouettes and character presentation. Laboratory work on University Theater productions required. Prerequisites: Must have completed all Theater and Dance core courses. This restriction does not apply to non-Theater and Dance majors or minors.

370-3 Advanced Lighting Design — [Dist.FAH] Lighting concepts and sensitivity to lighting environments. Lighting plans, light plots, schedules and section drawings. Laboratory work on University Theater productions required. Prerequisites: THEA 170, consent of instructor. Must have completed all Theater and Dance core courses. This restriction does not apply to non-Theater and Dance major or minors.

394-3 Playwriting — [DIST. FAH] 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 — 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: THEA 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 (TAP).

399-1 to 3 Special Topics in Theater — [Dist.FAH] 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. Must have completed all Theater and Dance core courses. This restriction does not apply to non-Theater and Dance majors or minors.

410-3 Acting as a Career — [Dist.FAH] 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.** Prerequisites: Majors- Must have completed all Theater and Dance core classes. Pre-requisite: Non-majors THEA 112A.

412-3 Acting for Television — [Dist.FAH] 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: Must have completed all Theater and Dance core courses. This restriction does not apply to non-Theater and Dance majors or minors.

420-3 Projects in Directing — [Dist.FAH] 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.** Prerequisite: THEA 220. Must have completed all Theater and Dance core courses. This restriction does not apply to non-Theater and Dance majors or minors.

430-2 to 3 Rehearsal and Performance — 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 — 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. Must have completed all Theater and Dance core courses. This restriction does not apply Theater and Dance majors or minors.

460-1 to 3 Advanced Costume Design Projects — 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. Must have completed all Theater and Dance core courses. This restriction does not apply to non-Theater and Dance majors or minors.

470-1 to 3 Advanced Lighting Design Projects — 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. Must have completed all Theater and Dance core courses. This restriction does not apply to non-Theater and Dance majors or minors.

475-1 to 3 Advanced Stagecraft Project — 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 — [Dist.FAH] 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.

482-3 Computers for Theater: Animation — [Dist.FAH] Computer image-making techniques as related to theater and dance. Class/lab work includes computer animation (vector, cell, "real-time"), computer generations for video enhancement. Prerequisites: advanced undergraduate or graduate standing and consent of instructor.

485-1 to 3 Special Projects in Computers — 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 — 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 — 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 — Individual or small-group readings under supervision of a faculty member. May be repeated to a maximum of 6 hours. Prerequisites: Must have completed all Theater and Dance core courses. This restriction does not apply to non-Theater and Dance majors or minors.

499a,b,c-3 Senior Assessment in Theater — Performance; (b) Design/Technical; (c) Liberal Theater Studies. Individual/group projects demonstrating proficiency in theater applications and General Education skills and knowledge. Prerequisite: Senior standing and consent of instructor.

University (UNIV)

112-2 The University Experience — This course is built upon the academic, cultural, and social aspects of the University. The history, structure, programs and supportive resources of the University are studied. Study skills, personal attitudes and choices for newly entering students are discussed.

Women's Studies (WMST)

200-3 Issues in Feminism — [Dist.SS, Dist.FAH, IGR] Beliefs, values, and commitments of the women's movement and their implications for lives of both women and men. May count for Dist.SS or Dist.FAH, but not both.

305-3 Psychology of Gender — [Dist.SS, 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 — [Dist.SS, 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.

313-3 Women in Cross-Cultural Perspective — [Dist.SS, 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.

314-3 History of Feminist Thought — [II] (Same as HIST 314) History of Western women's writings on their struggle for access to education, independent religious expression, and economic and political opportunities from roughly 1350-1950.

315-3 Family and Household Cross-Cultural Perspective — [Dist.SS, 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. Prerequisite: ANTH 111 or consent of instructor.

331-3 Gender and Communication — [Dist.FAH, 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 — [Dist.FAH, 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 — [Dist.FAH, 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 Philosophy and Women — [Dist.FAH] (Same as PHIL 345) Theories of the nature and role of women as expounded by philosophers past and present.

346-3 Feminist Theory — [Dist.FAH, IGR] (Same as PHIL 346) Social philosophy from feminist perspective. 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 — [IGR] (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 — [Dist.FAH, 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 — [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 — [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 — [Dist.SS, IGR] Women as citizens and as political leaders in the areas of politics, labor, peace, war and violence. Prerequisite: POLS 111 or consent of instructor.

390-3 Special Problems — [Dist.FAH or Dist.SS] 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 — [Dist.SS] [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 — [Dist.SS, 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.

402-3 Language and Gender in Cross-Cultural Perspectives — [Dist.SS, IC] Examination of gendered language use in a variety of cultures worldwide, and of the socialization of children into gendered language use as children and adults.

428-3 Topics in European Women's History — [Dist.SS, 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 — [Dist.SS, 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.

Women's Studies

Colonial era to present.

441-3 Women and Politics in America — [Dist.SS, 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 — [Dist.SS, 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.**

450-3 Science, Gender, and Race — [Dist.NSM, IGR] (Same as BIOL 450) Current social issues and historical perspectives of science, especially biology, and its medical and technical applications as they relate to gender and race. Prerequisite: Junior Standing.

451-3 Gender and Education — [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.

456-3 Seminar on Women Writers — [Dist.FAH, IC] (Same as FR 456) Fiction, nonfiction, drama, and poetry. Taught in English. For credit in FL, term paper written in French.

473a,b-3 each Women in Art — [Dist.FAH, IC] (Same as ART 473) (a) The history of women artists from the Middle Ages to World War II; (b) The history of women artists from World War II to the present.

478-3 Studies in Women, Language, and Literature — [Dist.FAH, 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.

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.