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Southern Illinois University Edwardsville

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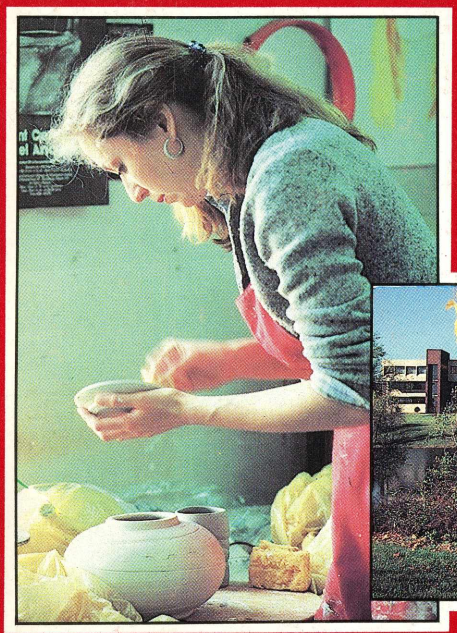
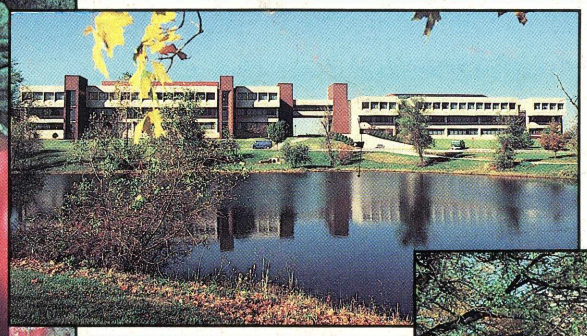
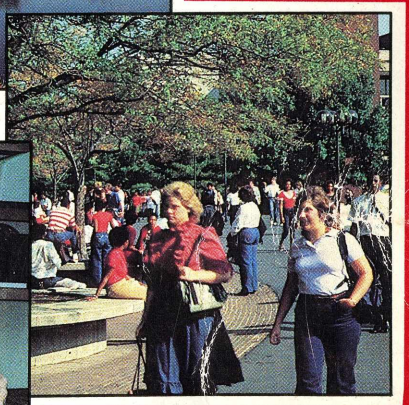
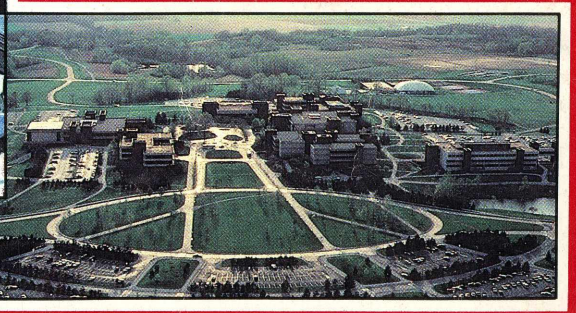
Southern Illinois University at Edwardsville









1984-1986 UNDERGRADUATE CATALOG

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SIUE

Southern Illinois University at Edwardsville

CATALOG

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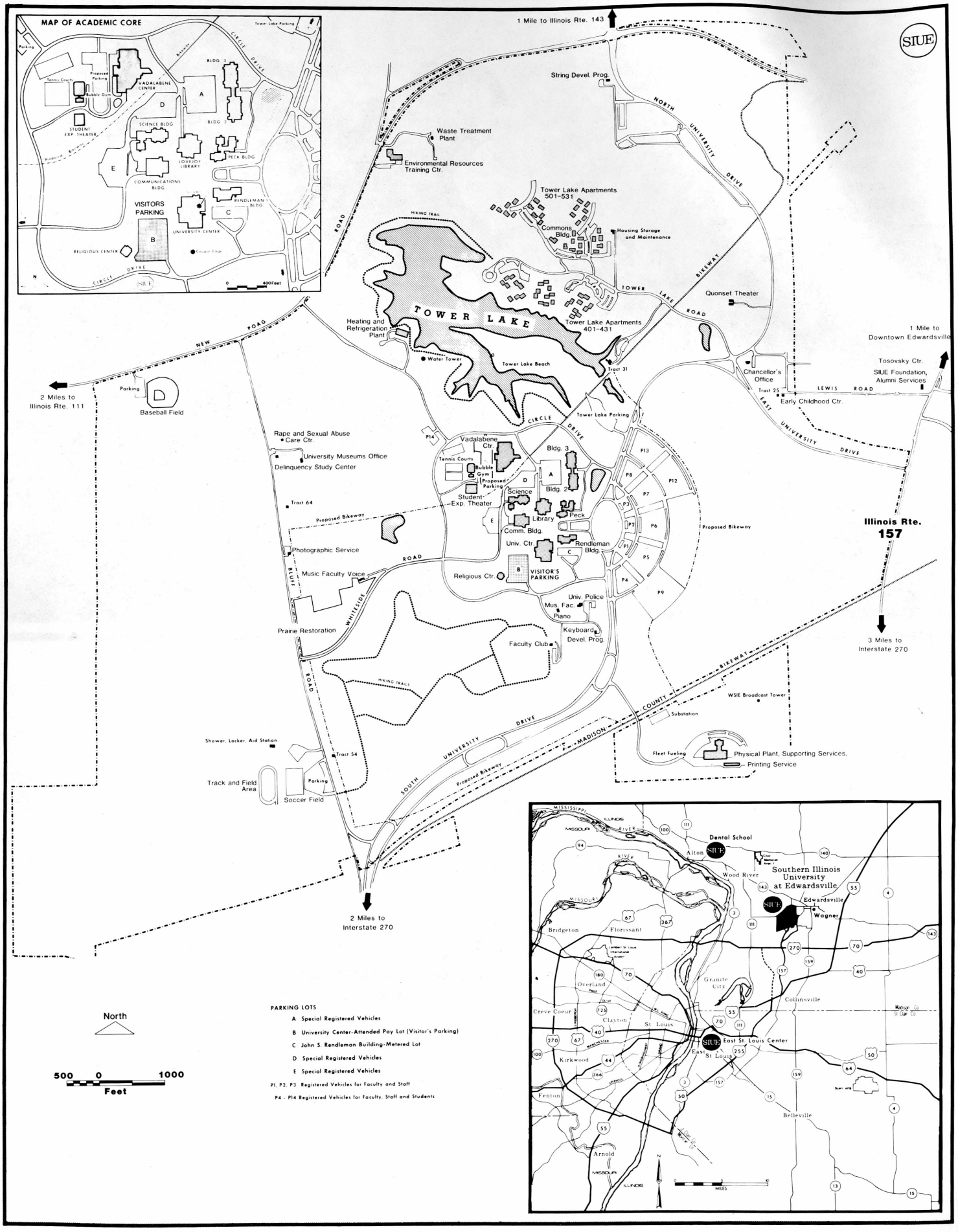
MAP OF ACADEMIC CORE
1 Mile to Illinois Rte. 143
SIUE
String Devel. Prog.
NORTH UNIVERSITY DRIVE
Waste Treatment Plant
Environmental Resources Training Ctr.
Tower Lake Apartments 501-531
Commons Bldg.
Housing Storage and Maintenance
HIKING TRAIL
TOWER LAKE
BIKEWAY
TOWER LAKE ROAD
Quonset Theater
Heating and Refrigeration Plant
Water Tower
Tower Lake Beach
Tower Lake Apartments 401-431
Tract 31
1 Mile to Downtown Edwardsville
Tosovsky Ctr.
SIUE Foundation, Alumni Services
Chancellor's Office
Tract 25
LEWIS ROAD
Early Childhood Ctr.
EAST UNIVERSITY DRIVE
NEW POAG ROAD
2 Miles to Illinois Rte. 111
Parking
Baseball Field
CIRCLE DRIVE
Tower Lake Parking
Rape and Sexual Abuse Care Ctr.
University Museums Office
Delinquency Study Center
Vadalabene Ctr.
Tennis Courts
Bubble Gym
Proposed Parking
Bldg. 3
Bldg. 2
Science
Student Exp. Theater
Library
Peck
Comm. Bldg.
Univ. Ctr.
Rendleman Bldg.
Religious Ctr.
VISITOR'S PARKING
Tract 64
Proposed Bikeway
Photographic Service
Music Faculty Voice
BLUFF ROAD
WHITESIDE
Prairie Restoration
Univ. Police
Mus. Fac. Piano
Keyboard Devel. Prog.
Faculty Club
Illinois Rte. 157
3 Miles to Interstate 270
HIKING TRAILS
WSIE Broadcast Tower
Substation
COUNTY MADISON BIKEWAY
SOUTH UNIVERSITY DRIVE
Shower, Locker, Aid Station
Tract 54
Track and Field Area
Soccer Field
Parking
Fleet Fueling
Physical Plant, Supporting Services, Printing Service
2 Miles to Interstate 270
North
500 0 1000
Feet
PARKING LOTS
A Special Registered Vehicles
B University Center-Attended Pay Lot (Visitor's Parking)
C John S. Rendleman Building-Metered Lot
D Special Registered Vehicles
E Special Registered Vehicles
P1, P2, P3 Registered Vehicles for Faculty and Staff
P4 - P14 Registered Vehicles for Faculty, Staff and Students
Dental School
Alton
SIUE
Wood River
Southern Illinois University at Edwardsville
Edwardsville
Wagner
Bridgeton
Florissant
Granite City
Collinsville
Overland
Creve Coeur
Clayton
St. Louis
East St. Louis Center
East St. Louis
Kirkwood
Fenton
Belleville
Arnold
MISSOURI
ILLINOIS
MISSISSIPPI RIVER
MILES

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VISITS TO THE SIUE CAMPUS

Visitors are invited to tour the campus and University buildings. Appointments to discuss admission may be made by contacting the Office of Academic Services in Peck Building 1304 or by calling (618) 692-3715.

SIUE ANNOUNCEMENTS

Southern Illinois University at Edwardsville publishes announcements of two kinds: biennial undergraduate and graduate catalogs and quarterly class schedules. The undergraduate catalog provides information about the undergraduate programs while quarterly class schedules provide information for courses offered during a given quarter.

Students and other interested persons may obtain without charge the following materials from the Office of Admissions and Records, Southern Illinois University at Edwardsville, Edwardsville, Illinois 62026-1001.

Undergraduate Catalog. The catalog is available for examination in high school guidance offices and libraries throughout Illinois and in some other states. Copies will be furnished free to educational institutions upon request and to new and prospective students.

Graduate School Catalog. (Also available from the Graduate School.)

Schedule of Classes. Please specify quarter (fall, winter, spring, or summer).

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. This catalog is published as a two-year edition. From time to time, changes in courses, curriculum, tuition, fees, or other details may be required.

ACADEMIC CALENDAR

Spring 1984
March 24 (7:30 am) - June 10
Final Exams — June 5-10

Summer 1984
June 16 (7:30 am) - August 31
June 16 (7:30 am) - August 10 (8 week session)
Final Exams — August 25-31

Fall 1984
August 27 (7:30 am)[1] and September 22 (7:30 am) - December 14
Thanksgiving Break — November 19-25
Final Exams — December 8-14

Winter 1985
January 2 (7:30 am) - March 17
Final Exams — March 12-17

Spring 1985
March 23 (7:30 am) - June 9
Final Exams — June 3-9

Summer 1985
June 15 (7:30 am) - August 30
June 15 (7:30 am) - August 9 (8 week session)
Final Exams — August 24-30

Fall 1985
August 26 (7:30 am)[1] and September 21 (7:30 am) - December 13
Thanksgiving Break — November 25-December 1
Final Exams — December 7-13

Winter 1986
January 4 (7:30 am) - March 21
Final Exams — March 15-21

Spring 1986
March 29 (7:30 am) - June 15
Final Exams — June 9-15

Summer 1986
June 21 (7:30 am) - September 7
June 21 (7:30 am) - August 15 (8 week session)
Final Exams — September 2-7

[1]SEPTEMBER OPTION

WELCOME TO THE UNIVERSITY

Welcome to Southern Illinois University at Edwardsville, a University dedicated to quality education, to the encouragement of scholarship, and to full partnership in the life of the surrounding community. I am pleased to have an opportunity to introduce SIUE and its programs and services.

The strength of a university depends upon several important factors—its academic programs, its faculty, and the facilities and services supporting its academic activities. In all categories, I believe you will find SIUE to be attractive.

Although most SIUE students come from the Midwest, many nations and all parts of the United States are also represented on campus. This diversity, set within the framework of the University's pleasant medium size, makes it possible for students to gain a better understanding of the world in general while pursuing their formal education. At SIUE, it is possible to attain that education in a wide variety of strong degree programs and specializations ranging from the career-focused disciplines to the traditional liberal arts and sciences.

Any assessment of a college or university is incomplete without careful attention to the quality of the faculty who provide leadership in learning. You will find that members of our faculty possess academic credentials earned through advanced training in highly regarded institutions both in this country and abroad. We are confident that you will be impressed by their concern for the educational welfare of their students. Opportunities for learning at SIUE are further enhanced by beautiful surroundings and by the many support services and social, cultural and recreational activities designed for a full campus life.

SIUE has much to offer you. After you have browsed through this catalog, I hope that you will find the time to visit the campus and gain a more complete appreciation of SIUE's excellent programs, faculty, and facilities. I am confident that one visit will convince you that Southern Illinois University at Edwardsville is truly everything education should be.

Earl E. Lazerson
President

SOUTHERN ILLINOIS UNIVERSITY AT EDWARDSVILLE: AN INTRODUCTION

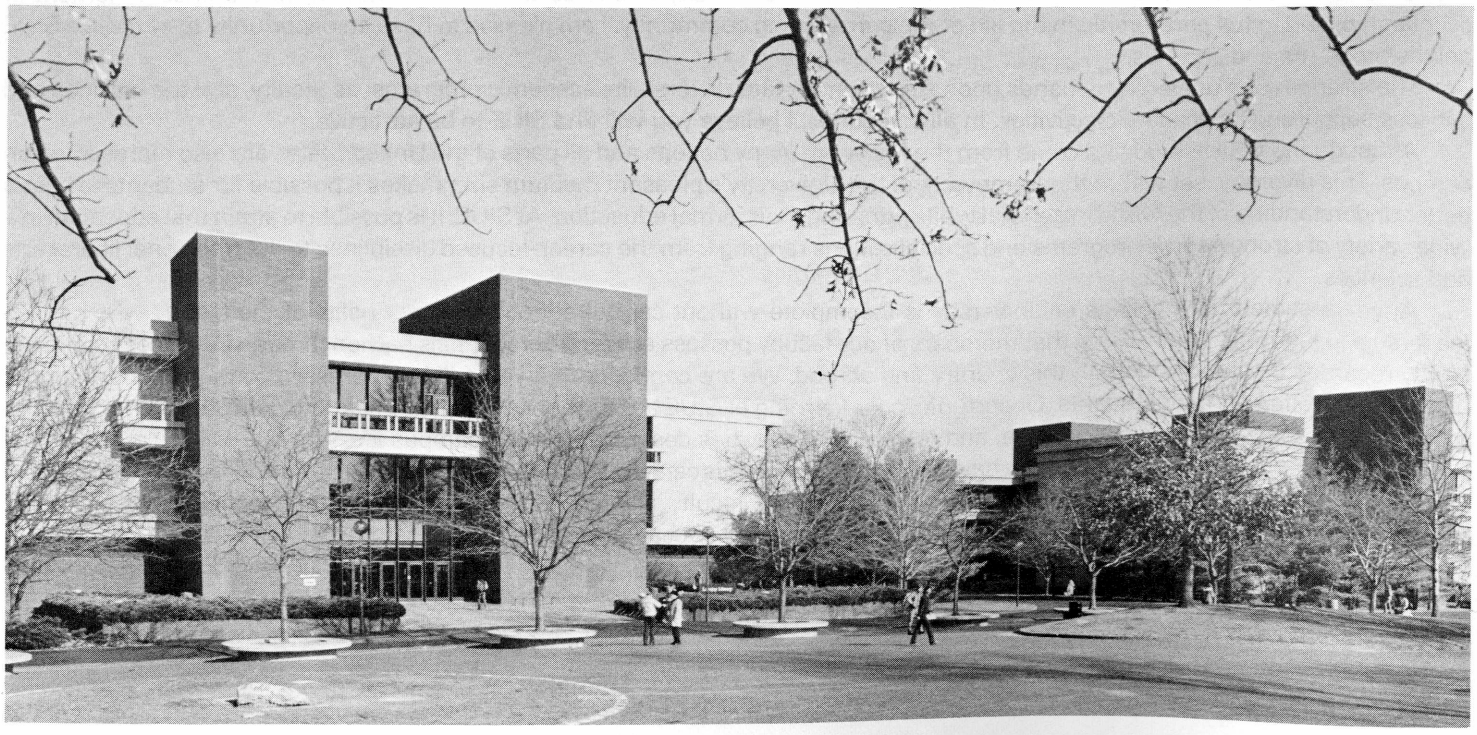
Southern Illinois University at Edwardsville is the realization of a vision of educational opportunity for southwestern Illinois. In 1957, 1900 students attended classes at "residence centers" in Alton and East St. Louis. Today, more than 10,000 students pursue their educational goals at SIUE's main campus in Edwardsville, at its Alton and East St. Louis campuses, and at numerous off-campus locations. In just 25 years, the University has become a major contributor to the educational, social, cultural and economic life of the region.

Today, SIUE is a major public university, offering a broad choice of degrees and programs ranging from career-oriented fields of study to the essential, more traditional, liberal arts. Here students have an opportunity to interact with outstanding teachers and scholars, as well as with other students from all parts of the United States and the world. They enjoy the excellent facilities of a new and growing campus, including extensive research laboratories, specialized equipment for professional preparation, and comfortable, spacious classrooms. In addition, academic services are available which provide tutoring, testing, academic and career counseling, and other support systems designed to help students meet the many new demands of college life. At SIUE, students find comprehensive educational opportunities and a community in which individuals support each other in their search for knowledge and individual development.

While attending SIUE, students may choose to live on campus or at home. A large proportion of SIUE students are employed on a part-time or full-time basis while attending the University. Academic scheduling is designed to accommodate individual student needs through the availability of week-day, evening, and weekend classes. In every format, SIUE students are assured of quality instruction.

At SIUE, we believe that education is more than classroom learning. Campus activities present students with an ever-changing spectrum of cultural, social and recreational experiences designed to complement the academic program. Theater and dance productions, musical presentations, art collections, renowned speakers and artists, and the fine swimming, biking and other recreation offered by the University's 2600 acres of rolling, wooded hills 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 miles away.

SIUE offers a broad range of quality educational experiences at affordable tuition rates, an architecturally and aesthetically outstanding 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 will make your experience here everything education should be.



THE SOUTHERN ILLINOIS UNIVERSITY SYSTEM AND SIUE

THE SYSTEM

The Southern Illinois University System is comprised of two universities, located at Carbondale and at Edwardsville, serving approximately 33,000 students. One of the nation's largest, the Southern Illinois University System had its beginnings in Carbondale and was chartered in 1869 as Southern Illinois Normal University. In 1949 Southern Illinois University began offering off-campus academic courses in the metropolitan East St. Louis area. This initiative led to the eventual development of a separate, distinctive institution at Edwardsville.

The mission and scope of the Southern Illinois University System is highly complex and emphasizes a commitment to quality education. As the SIU system has grown and flourished, its constituent universities have developed programs of instruction, research, and public service which have attracted and served students, faculty, and staff from throughout Illinois, the nation, and foreign countries.

A modern and comprehensive post-secondary educational institution, the Southern Illinois University System has a broad range of academic programs at the associate, bachelor's, master's, doctoral, and professional degree levels.

The Southern Illinois University System is governed by a nine-member Board of Trustees which sets policy that enables the institutions to carry out established missions and goals. The Chancellor of the Southern Illinois University System is the chief executive officer of the System and is the primary link between the Universities and the Board of Trustees. The University Presidents report directly to the Chancellor and are responsible for the internal operations of the respective institutions.

THE UNIVERSITY

Southern Illinois University at Edwardsville traces its origin to a recommendation in 1956 to the Southwest Illinois Council of Higher Education. The Council was convinced that higher education facilities were needed in counties bordering Missouri in the greater St. Louis area. They hired consultants whose reports documented that need and appealed to Southern Illinois University, one hundred 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 3800, greatly exceeding the physical facilities and demanding services faster than the University could develop and supply them.

A planning team began to investigate sites in the Metro-East counties, selecting one just south of Edwardsville. In 1960 the Illinois legislature authorized a bond issue for construction of a new state university campus. Voter approval came in November 1960. After two and one-half years of planning, University officials and area residents attended ground-breaking ceremonies for the first permanent buildings.

Southern Illinois University at Edwardsville moved onto its new campus in the fall of 1965: 2600 acres of rolling land and woods dotted with lakes along bluffs flanking the Mississippi River. Much of the land still retains its natural shape, surrounding the academic center that 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 immediately received several awards in recognition of the successful blend of the aesthetic and functional in a setting that promotes and enhances growth and development.

LOCATION

Southern Illinois University at Edwardsville serves the most populous region of downstate Illinois. The campus is centrally located in the eastern metropolitan St. Louis area; most of its students live and work in the industrial and agricultural counties of Metro-East. Interstate highways make the University convenient for the population within a sixty-mile radius, an area that includes 2,600,000 people.

St. Louis, fifteen miles 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, biochemical, and business research. SIUE is one of four major universities among more than twenty 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, mammoth retail malls, and touring Broadway plays; but they can enjoy as well the pastoral setting of the campus and nearby state parks, small towns, and historic settlements.

STUDENTS

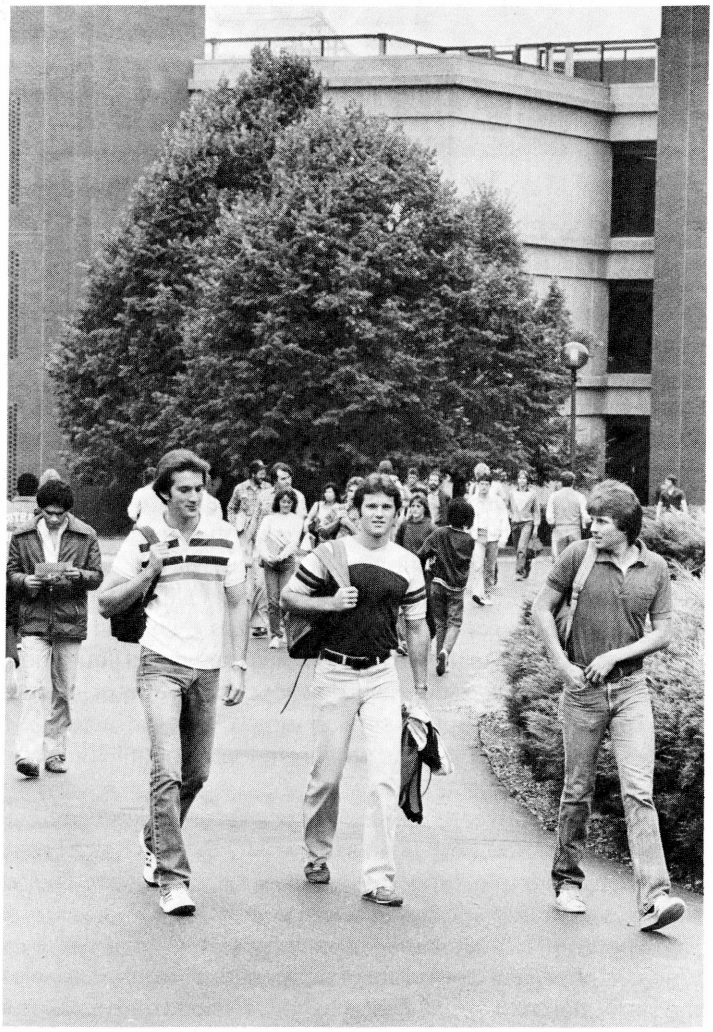
With an enrollment of more than 10,000 students, Southern Illinois University at Edwardsville is large enough to provide for all the educational needs of its students, yet sufficiently small not to seem impersonal. Sixty-nine percent of all students come from Madison and St. Clair counties in Illinois, nine percent from Missouri. The remainder come from almost every county in Illinois, forty-five other states, and forty-nine foreign countries. Minority groups comprise sixteen percent of the total enrollment.

The majority of SIUE students are between the ages of eighteen and twenty-two and have come to the University to prepare for the challenges of life and employment. Many students, however, are over twenty-five and have enrolled in the University after beginning their families and careers. One-fourth of all students are married. Some return to complete an interrupted education, others to retrain for better jobs. Many students return for the sheer excitement of learning. More than one-third of all students attend part-time; many of them work while taking classes. For them, evening and Week End University classes are especially convenient.

Approximately 1,200 single students and 168 families live in apartment-style University housing near the recreational facilities at Tower Lake.

The University has developed a number of programs to recognize academic excellence among students. These include the Dean's College, the Presidential Scholars Program and special recognition of outstanding students at the annual Honors Day Convocation. For additional information, please refer to the Academic Support Services section of this catalog.

Nearly twenty percent of the SIUE enrollment consists of graduate students. The University offers master's level work in thirty-four degree programs, as well as a Doctor of Education in the Instructional Process. Students may also apply to the School of Dental Medicine, operated by SIUE at the Alton Campus. More than 1,000 SIUE students also attend classes at the East St. Louis Campus, at local community college campuses, at off-campus resident centers, and at other off-campus locations throughout Southwestern Illinois and the United States.



ACCREDITATION

Southern Illinois University at Edwardsville is accredited by the North Central Association of Colleges and Secondary Schools.

Many of its departments are accredited by professional agencies, including the following:

Accreditation Board for Engineering and Technology
American Assembly of Collegiate Schools of Business
American Chemical Society
American Council on Education for Journalism and Mass Communications
American Dental Association
American Speech-Language-Hearing Association
Council on Social Work Education
National Association of Schools of Music
National Council for Accreditation of Teacher Education
National League for Nursing

FACULTY

Approximately 600 faculty members provide instruction, research, and public service at SIUE. Eighty-five percent of the faculty possess terminal degrees earned at major universities in the United States and abroad. Many of the faculty have distinguished themselves by research and publications. In 1983 forty-two faculty members received external funding for research and related instructional activities. The University emphasizes the instructional responsibilities of its faculty.

UNIVERSITY POLICIES

FAIR PRACTICE

Southern Illinois University at 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. In addition, the University endorses the basic principles of the codes of ethics issued by the American Association of Collegiate Registrars and Admissions Officers, and the National Association of College and University Business Officers.

Information regarding fair practices may be obtained from the Offices of the Vice President and Provost, the Dean of Students, and the Coordinator of the Central Affirmative Action Office.

EQUAL OPPORTUNITY AND AFFIRMATIVE ACTION

Southern Illinois University at Edwardsville is committed to equal educational and employment opportunity and affirmative action. SIUE administers its programs, services, and employment opportunities without regard to race, ethnicity, color, sex, creed or religion, national origin, age, handicap, veterans' status or other proscribed categories. Affirmative action is taken as appropriate. In addition, it is the policy of SIUE to make every reasonable effort to accommodate individuals with special needs.

The University complies in letter and spirit with federal and state legislation, which includes but is not limited to, Titles VI and VII of the Civil Rights Act of 1964, Executive Order 11246, the Equal Pay Act of 1963, the Age Discrimination in Employment Act of 1967, Title IX of the Education Amendments Act of 1972, Sections 503 and 504 of the Rehabilitation Act of 1973, the Vietnam Era Veterans' Readjustment Assistance Act of 1974, Titles VII and VIII of the Public Health Service Act, and the Illinois Human Rights Act and related state laws. Inquiries regarding equal opportunity and affirmative action in admissions, administration, and employment should be directed to the Central Affirmative Action Office.

RIGHT TO PRIVACY AND NONDISCLOSURE

Under the Family Educational Rights and Privacy Act, all students have the right to inspect and review their official University records in accordance with provisions of the aforementioned act and within the University guidelines. Inquiries regarding the Family Educational Rights and Privacy Act of 1974 should be directed to the Office of Admissions and Records.

In addition, the University, through the Director of Admissions and Records and the Office of the Dean of Students, may make accessible to any person "directory information" concerning students. Directory information consists of the following: name, school address, home town address, telephone listing, date of birth, major field of study, participation in officially recognized sports, weight or height of members of athletic teams, dates of attendance at SIUE, degrees or awards received, and the most recent previous educational agency or institution attended.

In cases where students have filed timely written notice that they object to the release of any or all items of "directory information," the specified items will not be released to any person except University personnel who, because of their educational function or research, have a legimate need. Legal obligations to governmental agencies may also compel the release of "directory information." The notification must be in the form of a letter to the Director of Admissions and Records and must list the items the student wishes to have withheld. 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 the deadline date for notice of objection in the fall term of the next academic year.

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. The social security number generally is used as the student identification number to avoid the assignment of a similar but University-originated number. Students retain the social security number or the University-originated number for the duration of their affiliation with the University. Social security numbers or University-orginated numbers will be used to identify the permanent records of students, such as registration, program changes, transcript requests, and certification requests. 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 are requested to submit their social security numbers. Social security numbers may be used to determine eligibility for financial assistance, student status, and school attendance.

STUDENT RIGHTS AND CONDUCT CODE

Students enrolling in the University assume an obligation for conduct compatible with the University's function as an educational institution. Students are expected to be familiar with the *Student Rights and Conduct Code.* Copies are available in the Office of the Dean of Students, the Office of the Vice President and Provost, and the Graduate Records and Admissions Office.

ACADEMIC ETHICS AND PLAGIARISM

The University recognizes plagiarism as a serious academic offense. Plagiarism, the act of representing the work of another as one's own, may take two forms. It may consist of copying, paraphrasing, or otherwise using the written or oral work of another without acknowledging the source; it may consist of presenting oral or written coursework prepared by another as one's own.

Normally, students who plagiarize shall receive a grade of E in the course in which the act occurs. The offense shall also be reported to the Vice President and Provost. Students who are reported a second time shall be suspended from the University for a period of not less than one quarter. Should students who have been suspended for plagiarism be readmitted and again found guilty of the offense, they shall be permanently expelled from the University.

The Dean of Students has administrative responsibility for resolving complaints, allegations, or grievances against students concerning plagiarism.

STUDENT ACADEMIC GRIEVANCE POLICY AND PROCEDURE

Copies of the Student Academic Grievance Policy and Procedure may be obtained from the Office of the Dean of Students or the Office of the Vice President and Provost.

ADMISSION TO THE UNIVERSITY

Southern Illinois University at Edwardsville provides opportunities for study to a large and diverse student population: freshmen entering from high school; individuals completing the General Education Development (G.E.D.) examination; students transferring from other colleges and universities; adults who have postponed or interrupted their education and returned for a degree; and others who want to enroll without seeking a degree.

The University has established admission policies for all categories of students. The Office of Admissions and Records assists all students preparing to enter the University.

ADMISSION AS A FRESHMAN

Criteria

High school students who rank in the upper half of their graduating class or who achieve a score greater than the 50th percentile on a college entrance examination may be admitted unconditionally to any quarter of the academic year (fall, winter, spring, or summer). Those who rank in the lower half of their graduating class and who score below the 50th percentile on a college entrance examination will be permitted to enter conditionally for the summer, winter, or spring terms and continue contingent upon such progress.

Students may be considered for admission after completing the sixth semester of high school. Prospective students must submit high school records and furnish American College Testing or Scholastic Aptitude Test scores prior to enrolling in the University. Students admitted who are still in high school must complete high school requirements and maintain their rank in the high school class.

Individuals who have not completed high school may be considered for admission by successfully completing the General Education Development examination. Persons seeking admission by G.E.D. examination must have their official G.E.D. results sent directly to the Office of Admissions.

ADMISSION BY AMERICAN COLLEGE TEST APPLICATION PROGRAM

High school students in the last semester of their junior year or first semester of their senior year may apply for admission through the American College Testing Application (ACT/APP) Program. Students receive an ACT/APP form that is both an application for admission and an authorization for release of information directly from their high schools. Students specify that SIUE is to receive their test scores. This information enables the University to determine students' admission status. Applicants must return the form before they can be admitted, at which time the University creates an admission file. An early return will also enable applicants to receive mailings about the programs and services of SIUE.

TRADITIONAL ADMISSION

Students who have already completed high school or who did not send their ACT scores to SIUE should:

1. Submit an application for undergraduate admission at least 30 days prior to the beginning of the quarter for which application is being made. Applications may be obtained from the Office of Admissions and Records, the high school counselor's office, or this catalog.
2. Request that one copy of their high school transcript be sent directly to the Office of Admissions and Records from the high school. (All transcripts become the official property of the University and will not be returned or issued to another institution.)

3. Take a college entrance exam and have official scores sent directly to the Office of Admissions and Records from the testing program. ACT is the preferred admission test; however, SAT scores are acceptable.

EARLY ADMISSION

Exceptionally capable high school students who (a) have completed their junior year, (b) are recommended by their high school principals, and (c) are approved by the Director of Admissions of the University will be permitted to enroll for University courses to be taken concurrently with their senior year of high school work. Such students will also be permitted to enroll for University courses offered during the summer quarter between their junior and senior years of high school without being concurrently enrolled in secondary school. Enrollment for students participating in this early admission program is limited to 8 quarter hours.

In making their selections and recommendations, high school principals will consider the following:

(1) class rank;
(2) ACT or SAT scores;
(3) teacher recommendations regarding aptitude for college level work; and
(4) teacher assessment regarding ability to adjust to the university environment.

ADMISSION AS A TRANSFER STUDENT

Criteria

Applicants for undergraduate admission to the University are considered to be transfer students when hours of work presented for consideration from two-year and four-year institutions are accepted for credit, with the exception of hours carried through college courses taken while students are still in high school.

The admissibility of transfer students shall be based on their cumulative grade average from all institutions previously attended. This transfer average shall be used only to determine applicants' eligibility for admission. All acceptable transfer credit will be reflected on the SIUE record, but the only grade average calculated will be for work at SIUE.

Students applying for admission from two-year and four-year institutions are admissible in good standing, provided they have maintained a 3.00 (C) grade point average at the previous school(s) attended. Those who do not have a 3.00 average, but who are eligible to return to their previous school, may be admitted on scholastic warning or probation. Students who have been dismissed for poor scholarship from other schools may be considered for admission on academic warning or probation, provided there has been an interruption in schooling of at least two quarters and there is tangible evidence that students can successfully complete an academic program.

Transfer of Credit Hours

Students graduating with an associate degree in a baccalaureate-oriented program (Associate in Arts or Associate in Science degree) from a public two-year college in Illinois may be admitted to the University with junior standing and are regarded as having completed the lower division general education requirements. Graduates of other accredited two-year institutions may be granted similar consideration.

Other students who transfer from an accredited university, college, or community college have their work evaluated for purposes of meeting the general degree requirements, including general education. In all cases only work with grades of A, B or C will be accepted for transfer. In general, equivalent work in appropriate areas is applied to meet the University requirements. Other courses may be accepted for general credit and may apply toward degree requirements.

All applicants, including A.A. and A.S. degree recipients, who present credit by examination (through College Level Examination Program or Advanced Placement Program) on a college transcript and wish to have that credit accepted by the University must have the results of the tests sent directly to the Office of Admissions and Records. Granting of credit is governed by current University policy. For more information, please refer to the discussion on the Advanced Placement Program and College Level Examination Program in the section entitled Course Alternatives.

Semester hours transferred are computed on the basis of 1.5 quarter hours credit for each 1 semester hour accepted. Students transferring a course carrying 3 semester hours credit, for example, will receive 4.5 quarter hours credit.

APPLICATION PROCEDURES

Prospective students may initiate the admission process by calling or writing the Office of Admissions and Records and requesting admission materials. Students applying for admission as transfer students must:

1. Submit an application for undergraduate admission at least 30 days prior to the quarter for which admission is planned.
2. Request that an official transcript be sent directly to the Office of Admissions and Records from each institution previously attended. (All transcripts become the official property of the University and will not be returned or issued to another institution.)

3. Request that an official high school transcript and ACT scores be sent directly to the Office of Admissions and Records if fewer than 24 quarter hours (16 semester hours) have been completed.

ADMISSION OF INTERNATIONAL STUDENTS

Criteria

Southern Illinois University at Edwardsville is authorized under Federal law to enroll nonimmigrant alien students. Applicants are expected to satisfy minimum academic requirements, demonstrate English language proficiency, and provide acceptable evidence of adequate financial resources.

Prospective applicants should have completed their secondary school courses in a university preparatory program with marks equivalent to standards established for domestic students. All previous college or university-level study must have been completed with at least the equivalent of a C average. This work will be evaluated for transfer credit as applicable.

English language proficiency for non-native speakers is measured by performance on the Test of English as a Foreign Language (TOEFL). The minimum acceptable score is 500. Students enrolled in English-as-a-second-language programs are also required to complete their language course with a level of proficiency adequate to earn a favorable recommendation from the Director of the language program. Applicants who have earned a passing grade on the ordinary level University of London General Certificate of Education Examination in English Language (or a recognized equivalent examination) are excused from the TOEFL requirement. Graduates of United States high schools, as well as students holding associate degrees (A.A. or A.S.) or bachelor's degrees from accredited United States colleges and universities, are also considered to be proficient in English.

Proof of adequate financial resources should be submitted to the Foreign Student Adviser. A financial certificate and instructions for its completion are included in the application packet. Questions regarding financial matters should be directed to the Foreign Student Adviser in the Office of Academic Services.

Application Procedures

The undergraduate application materials for foreign students include a detailed explanation of procedures and required credentials, and are available in the Office of Admissions and Records. Materials will be mailed upon request. In brief, the following items are necessary:

1. Official mark sheets, certificates, or transcripts of all secondary and post-secondary study are required. Photocopies of original mark sheets and certificates are acceptable only if they are certified true and complete by the authority issuing the original. All official transcripts must be submitted directly to this office by the principal or registrar of each school attended. Credentials not in English must be accompanied with an original and attested translation.
2. Acceptable verification of English language proficiency must be provided by all applicants holding or requiring an F-1 visa.
3. The financial certificate and supporting documents should be returned directly to the Foreign Student Adviser.

All credentials submitted become the property of the University and will not be returned. Students who observe the following deadlines for submitting applications and supporting credentials can expect to have their files reviewed in a timely manner.

Quarter	Deadline for Submitting Credentials	Admissions Decision
Fall	March 1	June 1
Winter	June 1	September 1
Spring	September 1	December 1
Summer	January 1	March 1

ADMISSION OF FORMER STUDENTS

Students who have registered and paid fees for any of the four quarters immediately prior to the one they wish to attend are considered continuing students and need not reapply for admission.

Continuing students may obtain information concerning registration by contacting the Enrollment Center, Rendleman Building, Room 1309.

Former students who have been out of school more than four quarters must complete a re-entry application which may be obtained through the Office of Admissions and Records. Students attending other institutions after leaving SIUE must request an official transcript be sent directly to the Office of Admissions and Records from each institution before a decision can be made on readmission.

ADMISSION OF VETERANS

Veterans seeking admission or readmission to the University are admitted in good standing regardless of their previous academic record provided either that (a) no additional education has been attempted since release from active duty or that (b) such additional education has been of C quality or better. Prior academic work of admitted re-entering veterans is counted together with all subsequent work after admission. Veterans are required to submit all required admission credentials before their applications can be processed. This may include high school transcripts or GED scores and/or official transcripts from each college or university previously attended.

ADMISSION AS A NON-DEGREE STUDENT

Students who desire to take undergraduate classes at the University for their own interest, knowledge, or job upgrading, but who are not interested in pursuing a degree, may be admitted as non-degree students. Students in this category

may enroll in any undergraduate course for which they have met the prerequisites. However, they are not eligible for VA educational benefits and/or most forms of financial assistance.

The only document required for admission as a non-degree student is the Non-Degree Application. Students admitted into this category who desire to enter a degree program at a later date must go through the prescribed admission procedure. Midterm status changes will not be permitted. Application for re-classification of status, if acceptable, will be processed for the next available term. Credits earned while students are classified as non-degree students will not be applicable toward a graduate degree. The decision regarding acceptance of credit earned as non-degree students toward a baccalaureate degree is made by the major department. All non-degree applications for admission are processed in the Office of Admissions and Records.

EDUCARD PROGRAM

Anyone who is not currently enrolled in courses for credit at SIUE may attend selected classes on a space available basis under the EDUCARD Program of the Office of Continuing Education. EDUCARD students may register up to two weeks after the beginning of a quarter for a fee of $15. Mail registration is permitted; the fee is refunded if space in the selected classes is not available. No credit is earned and no official University records are kept of EDUCARD students. Textbooks are available from Textbook Rental upon payment of the EDUCARD registration fee.

ORIENTATION AND NEW STUDENT LIFE

The University provides orientation sessions to assist all new students in adapting to the campus community. For more information, please refer to the Academic Support Services section of this catalog.

DETERMINATION OF RESIDENCY STATUS

Students' residency status affects several considerations, including tuition and financial assistance. Ordinarily, determination of residency status is made by the Office of Admissions and Records from evidence furnished on the application to the University. When such evidence is not sufficient or where records establish that students do not meet the requirements for resident status as defined in the following regulations, the non-resident status shall be assigned.

Students may obtain applications for classification as Illinois residents in the Office of Admissions and Records.

Definitions and Conditions

Adults, to be considered residents for purposes of SIUE tuition, must have been bona fide residents of the State of Illinois for a period of at least three 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 regarded as resident students.

Minors are considered to be persons under eighteen years of age. 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 actually reside in the State, those individuals 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-around 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 residence status in compliance with the requirements applicable to all students seeking residence 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 must have permanent resident status with the United States Immigration and Naturalization Service, and must also meet and 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 in connection with that service, and submiting 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 on the basis of having been 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 on the basis of (1) having been residents of the State at the time of entry into military service, or (2) having been treated as residents while in the military by attending school at this University while stationed within the State, or (3) having resided within the State for a period of three months after separation.

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 at any time by the University on the basis of additional or changed information. If a student has been misclassified as a nonresident, the change of tuition shall apply for the entire period of the misclassification. If the student has been inaccurately classified as resident, the change of tuition shall apply for that quarter in which the misclassification has been determined. If the University has classified students as residents on the basis of false or falsified documents furnished by the students, the reclassification to nonresident status shall be retroactive to the first quarter during which residence status was based on these incorrect documents.

Students may appeal their residency status in accord with established university procedures.

Appeal of Residency Status

Students who wish to appeal the residence status assigned or tuition assessed must pay the tuition assessed, but may file a claim in writing in the Office of Admissions and Records for a reconsideration of residence status and an adjustment of tuition. The written claim must be filed within thirty school days from the date of assessment of tuition, or the date designated in the official University calendar for tuition payment, whichever is later. If students are dissatisfied with the ruling in response to the written claim, the ruling may be appealed to the Dean of Students by filing a written request within twenty days of the notice of the first ruling.

FINANCIAL INFORMATION

FINANCIAL ASSISTANCE

The financial aid program of the University is designed to assist students who may be financially unable to meet the expenses of attending college. Financial aid may be awarded in the form of grants, scholarships, and loans, and through student employment. Grants and scholarships do not have to be repaid. Loans normally carry low interest rates with repayment beginning after the completion of studies. A combination of scholarships, grants, loans, and/or work is referred to as a "package," and packages are designed to meet students' particular needs. While most financial aid is based on need, SIUE offers several types of financial aid based on other factors.

Student financial need is determined by subtracting from the college cost budget any resources available to students. Such resources include expected parental contributions, student assets, summer earnings, or other student benefits. For self-supporting students, the resources include personal income and any income earned by spouses. The analysis of need may vary slightly between federal, state, and institutional programs, but it is based on the general assumption that primary responsibility for the cost of education rests with the parents or with self-supporting students themselves. The ability of parents or self-supporting students to contribute toward the educational costs is measured by need analysis systems, such as the Pell Grant Program, Illinois State Scholarship Commission Monetary Awards (ISSC), or the American College Testing Family Financial Statement (ACT-FFS).

ELIGIBILITY FOR FINANCIAL ASSISTANCE

In general, eligibility for most federal and state student financial aid programs requires that:

- Students enroll at least half-time. (Non-degree undergraduate students are not eligible.)
- Students are U.S. Citizens or permanent residents. (Foreign students attending on student visas are not eligible.)
- Students have financial need.
- Students are making satisfactory progress in their course of study. (See policy statement.)
- Male students are registered for the draft if born on or after January 1, 1960 and are not currently serving in the Armed Forces.
- Students are not in default on a prior educational loan at SIUE.
- Students do not owe a refund for overpayment of a previous Pell or Supplemental Educational Opportunity Grant at SIUE.
- Students provide a financial aid transcript from each postsecondary school or college attended previously.

HOW TO APPLY FOR FINANCIAL ASSISTANCE

Students applying for financial aid based upon need should submit the SIUE Application for Financial Assistance and the

ACT-Family Financial Statement as early as possible for the academic year for which aid is requested. The Family Financial Statement should be mailed to the American College Testing Program at least four weeks prior to the May 1st preferential filing date. Students wishing to receive maximum consideration for financial assistance should also mail the SIUE institutional application for financial aid to the Office of Student Work and Financial Assistance by May 1st. Applications received after May 1st will be considered only if funds are still available. Students must reapply each year for financial aid. All undergraduate students applying for financial aid should also apply to the Pell Grant Program; Illinois residents should apply for the Illinois State Scholarship Commission Monetary Award. Students may use the ACT financial statement to apply for the Pell Grant and ISSC by answering "yes" to the appropriate items.

Requests for applications and information about any of the programs may be obtained by contacting the Office of Student Work and Financial Assistance at (618) 692-3880 or Box 60, SIUE, Edwardsville, Illinois 62026-1001.

TYPES OF ASSISTANCE

SCHOLARSHIPS

Scholarships generally pay all or part of tuition and fees and do not have to be repaid. Funding for scholarships comes from the federal and state governments, SIUE, and area business, civic, and community groups.

Illinois State Scholarship Commission Monetary Award

The Illinois State Scholarship Commission (ISSC) provides Monetary Awards for partial or full payment of tuition and fees to full-time or half-time undergraduate students. The award is available to residents of the State of Illinois who demonstrate financial need.

Illinois Veterans Scholarship

This scholarship is available to students who have had at least one year of active military service with a discharge date after August 11, 1967, to students who have had any length of active service with a discharge date prior to August 11, 1967, and to students who have *one year of active service if currently* in the Armed forces. Additional criteria for qualifying for the Illinois Veteran's Scholarship include residence in the State of Illinois at the time of entrance into the service or residency six months prior to entrance into the service. Non-Illinois residents may qualify for the Illinois Veteran's Scholarship by attendance at an Illinois public university. Students qualifying for the Scholarship shall have received an honorable discharge, shall have returned to the State of Illinois within six months after separation, and shall have completed military service before May 7, 1975. Please contact the Office of Student Work and Financial Assistance for additional information.

Air Force ROTC Scholarships

The Air Force presently offers four year, three-and-one-half year, two-and-one-half year, and two-year scholarships to qualified students. This scholarship pays for tuition, certain fees, and books. Scholarship recipients receive $100 per month subsistence allowance. In addition, recipients must complete at least one semester of instruction in a major Indo-European or Asian language prior to commissioning. Contact an Aerospace Studies instructor for further information.

Illinois State ROTC Scholarships

SIUE provides forty scholarships, ten per academic year, to qualified full-time students who are Illinois residents. Students must have demonstrated leadership ability and qualify on a competitive examination (for example, ACT or SAT). The scholarship waives tuition and activity fees for up to four years as long as students remain in good academic standing and are enrolled in Air Force ROTC. Contact an Aerospace Studies instructor for further information.

Illinois General Assembly Scholarship

These scholarships are awarded by members of the General Assembly to residents of their legislative districts. The award may be for varying lengths of time and provides for tuition and the activity fee.

To apply, contact a General Assembly representative directly.

Provost Scholarship

Students with academic promise and talent may qualify for a Provost Scholarship. The Provost award provides full or partial tuition awards for one to three quarters. All applicants are also required to apply for need-based financial aid by completing the ACT Family Financial Statement. Only a limited number of Provost Scholarships are available each year. Students may obtain additional information by contacting the Office of Student Work and Financial Assistance or the Office of the Vice President and Provost, Box 21, SIUE, Edwardsville, IL 62026-1001.

Presidential Scholars Program

The Presidential Scholars Program, a scholarship program for academically talented freshmen, offers scholarships for up to four years, special academic status, and individualized educational opportunities to students designated Presidential Scholars. Since only twenty Scholars are selected each year, students applying for the program may wish to consider other forms of financial assistance as alternatives. In order to apply for the Presidential Scholars Program, students should contact the Director of Admissions and Records at SIUE. Additional information is provided in the Academic Support Services section of this catalog.

Athletic Scholarship

SIUE offers scholarships to talented athletes in accordance with National Collegiate Athletic Association rules and procedures. For more information, students should contact the Director of Intercollegiate Athletics.

Private Scholarships

Students are encouraged to work with high school or college counselors to secure information regarding private sources of scholarships. SIUE also has available an extensive bibliography of financial aid information in the reserve section of Lovejoy Library.

GRANTS

Grants are available to assist students with tuition and fees and with other educational expenses such as room and board or transportation. Grants do not have to be repaid.

Pell Grant

This federally-sponsored program is designed to aid eligible undergraduate students in meeting educational expenses and to fill the gap where parental or student resources fall short of meeting these expenses. The Pell Grant Program is used as the base in determining the total financial aid "package" of all undergraduate students.

Awards may range up to $1,900 per academic year. Most students utilize their full entitlement for Pell Grant during the Fall, Winter, and Spring Quarters. However, those students who do not attend on a full-time basis during each of these quarters may have remaining eligibility for a Summer Quarter Pell Grant.

Supplemental Educational Opportunity Grant

The purpose of the Supplemental Educational Opportunity Grant (SEOG) program is to assist students with demonstrated financial need who would be unable to enter or remain in school without this grant. There is a self-help component which assumes that students will accept either work or other loans as part of the total financial aid package.

Student-to-Student Grant

The Student-to-Student Grant Program (STS) is provided for students attending the University. The Program is funded through a $1.50 per student fee assessed each quarter and through matching state dollars. Grants of varying amounts are made to students based on financial need.

LOANS

Loans are available to SIUE students through federal, state, and institutional programs to assist with educational costs. Repayment of most loans begins six months after the student graduates or leaves SIUE.

National Direct Student Loan

Students who demonstrate financial need may qualify for a National Direct Student Loan (NDSL). The amount borrowed accrues no interest as long as the borrowers remain at least half-time students at any institution of higher education. Repayment begins seven months from the date the borrowers cease to attend school on at least a half-time basis. Interest at the rate of 5 percent begins to accrue at the time repayment begins. A ten-year period in which to repay the loan may be available. Cancellation of the loan in consideration for full-time teaching may also be available to qualified students. Payment can be deferred under certain circumstances. For additional information, please contact the Office of Student Work and Financial Assistance.

Students eligible for the NDSL may receive $1,200 per academic year. The cumulative amount of all undergraduate loans may not exceed $6,000. Eligible graduate students may receive up to $2,250 per academic year. The cumulative amount of all loans, undergraduate and graduate, may not exceed $12,000.

Guaranteed Student Loan

The Guaranteed Loan Program (GLP) is designed to make it possible for students who are enrolled at least half-time to borrow from private lenders, such as banks, savings and loan associations, and credit unions. All Guaranteed Student Loan applicants are required to complete a "Needs Test" form which is available in the Office of Student Work and Financial Assistance. Evaluation of the "Needs Test" will determine eligibility for the Guaranteed Student Loan. For first-time borrowers obtaining a loan under GLP, on or after September 13, 1983, the interest rate shall be 8 percent; however, interest rates are subject to change. Other students may have loans at the 8 or 9 percent rate depending upon when they entered the program. Eligible undergraduates may borrow $2,500 per academic year. The total amount of all undergraduate loans may not exceed $12,500 for four years.

Eligible graduate students may borrow $5,000 per academic year. The program maximum is $25,000 (this total includes all undergraduate and graduate loans).

Students should contact their lending institutions to secure applications. In order to insure adequate time for processing and certification, students should submit completed Guaranteed Student Loan applications to SIUE well in advance of the term for which they plan to enroll.

PLUS (Auxiliary) Loan Program

PLUS loans are meant to provide additional funds for educational expenses. The interest rate for these loans is 12 percent. Like the Guaranteed Student Loan (GSL), loans are provided by banks, credit unions, or savings and loan associations. Parents of dependent undergraduate students may borrow up to $3,000 per year. Independent undergraduates may borrow up to $2,500 per year. However, the PLUS loan, combined with any GSL the undergraduate also may have, cannot exceed the

yearly and total GSL undergraduate limits. Graduate students may borrow up to $3,000 per year. A borrower must begin repaying a PLUS loan within 60 days of receipt of the loan.

SIUE Foundation Loan

The SIUE Foundation has provided funding for loans to assist students in meeting educational expenses. Loans are based on financial need. Demonstrated academic achievement may also be required. Information regarding specific loans may be obtained by contacting the Office of Student Work and Financial Assistance.

Emergency Short-Term Loan

Funds are available to students through the Office of Student Work and Financial Assistance for emergency loans. Short-term loans are available for emergency situations only and are not for payment of tuition and fees. The maximum loan is normally $150. Evidence of the emergency should be provided. A small charge is made for this loan. Repayment is due when financial aid is disbursed or in 60 days, whichever occurs first.

EMPLOYMENT

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

Student Work

SIUE offers a broad range of part-time student work opportunities in almost every phase of University operation or service. Whenever possible, students are placed in positions which relate to their major field of study. Although the majority of the positions are in the clerical, maintenance, or food service areas, there are many challenging positions which develop the administrative, research, or technical skills of the employee.

Students usually work 15-20 hours per week as class schedules permit. Generally students begin working at the federal minimum wage and receive increases as total accumulated hours increase.

Students apply in person and are referred by the Office of Student Work and Financial Assistance to employing departments on campus for interviews.

College Work Study

The College Work Study Program is designed to assist students with financial need to secure employment and help defray costs. Students who qualify are awarded federal funds which pay 80 percent of their wages with the department in which they work paying the remainder. College Work Study eligibility is awarded as part of a package of scholarships, grants, or loans. Students' maximum earnings are specified in the award letters.

Job Locator and Development Program

The Job Locator and Development (JLD) Program assists 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 JLD Program provides financial assistance and job experience to students. Enrolled students who are not receiving monies through the SEOG, CWS, or NDSL programs may participate in the Job Locator Program. Employment opportunities are listed on the Job Board located outside the Student Work and Financial Assistance Office.

GI Bill Information

Southern Illinois University at Edwardsville is approved by the State Approving Agency for Veterans Education. Veterans who qualify for the Illinois Veterans Scholarship may use this award concurrently with their GI Bill benefits. Veterans do not receive VA educational benefits for the grades of W, WP, No Credit, Audit, PR, No Entry, and Deferred. Graduate students who receive a Deferred grade in a thesis course, however, may receive benefits. Non-degree seeking students are not eligible for VA benefits. Veterans must make satisfactory academic progress to remain eligible for VA benefits.

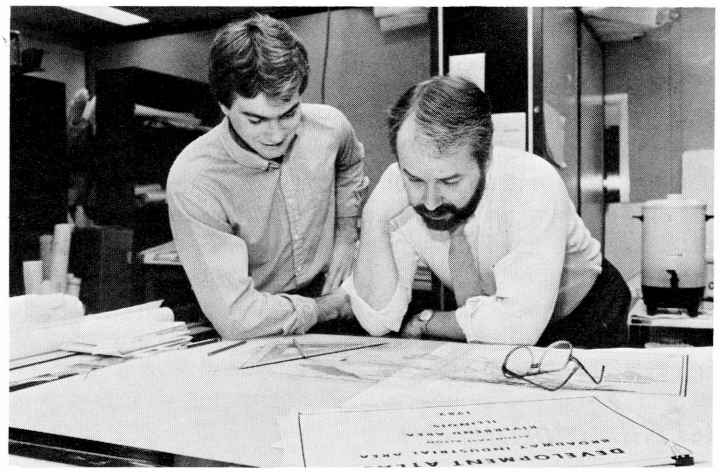
Veterans applying for the GI Bill may obtain the necessary application forms from the Veterans Administration Office or the University's Veterans Certification Section which is located in the Office of Admissions and Records, Room 1207, Rendleman Building. These forms, along with a copy of the veteran's 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 the Veterans Certification Section. This office in turn will complete the enrollment certification and mail it along with the application to the Veterans Administration in Chicago. If there are any changes in dependent status after receiving benefits, veterans should notify the Veterans Administration in Chicago immediately.

For undergraduate students qualifying under the GI Bill the following benefits apply as of 1984:

Academic Load	No Dependents	1 Dependent	2 Dependents	Each Additional Dependent
12 or more hours	$342	$407	$464	$29
9 - 11 hours	257	305	348	22
6 - 8 hours	171	204	232	15

Students attending under the GI Bill who find it necessary either to drop a class or to withdraw from school must indicate on the program or withdrawal form the last date of attendance.

Students who withdraw or leave the University are advised to refer to the Registration section of this catalog entitled Withdrawing From the University.



DEFERMENT OF TUITION AND FEES

Aid-based Deferment

Students unable to pay their tuition and fees by the due date may be able to qualify for financial aid or hardship deferments. Since financial aid check payments are made the fifth week of the term, financial aid recipients without scholarships are encouraged to apply for deferments. Deferments are granted during the first six weeks of the quarter. Most financial aid payments are made prior to the due date of the deferment debt. To qualify for a deferment, however, all prior debts (Accounts Receivable) must be paid. Deferments may be granted if the financial aid expected covers the amount of tuition and fees due the University.

To apply for a deferment, students should pick up an application during the registration process. Deferments are also available during the first week of classes, but students are encouraged to obtain the deferment during registration to avoid delays in obtaining textbooks. Students obtaining a deferment are required to sign a promissory note which is a legal instrument.

In order to be eligible for an aid-based deferment, students must meet the following criteria:

- Have verified financial aid at least equal to the amount of tuition and fees being deferred.
- Have no unpaid debts to SIUE.
- Have no default for a previous educational loan at SIUE.
- Make satisfactory academic progress as required for all financial aid recipients.

Students who have already received the proceeds of their guaranteed student loan (GSL) are not eligible to use the guaranteed loan as the basis for their deferment in subsequent quarters covered by the period of the GSL.

Students with a history of receiving financial aid from a previous school or SIUE may qualify for a deferment in the fall quarter. Students who have not received results from Pell or ISSC or who have not completed the paperwork necessary to transfer the award to SIUE should apply for a deferment.

Hardship Deferment

Students with extreme personal or family hardships of an emergency nature may be considered for hardship deferments according to the following quidelines:

- Have no unpaid debts to SIUE.
- Have a record of payment for previous deferments by the due date.
- Maintain good academic standing at SIUE.
- Provide documentation of the hardship in writing. A financial hardship consists of a major necessary and unexpected expense or loss of income which disrupts the financial circumstances of the student to the extent that the student is temporarily unable to pay tuition and fees.
- Provide documentation of the source or resources for payment of the balance of the deferment by the due date.
- Make payment of the first installment or deposit equal to at least 25% of the total tuition and fees due. This will be required to complete the deferment transaction.

FINANCIAL AID SATISFACTORY ACADEMIC PROGRESS POLICY

This policy complies with state and federal regulations governing student financial aid programs. Regulations concerning State of Illinois aid programs were established by the Illinois State Scholarship Commission. Requirements concerning federal aid programs were established by the Department of Education pursuant to the Education Amendments of 1976.

Undergraduate Students

All undergraduate students, in order to remain eligible for financial assistance, must demonstrate satisfactory academic progress by completing a minimum number of credit hours during each academic year of attendance at SIUE.

For purposes of this policy, at the undergraduate level, financial aid is defined as any of the Title IV federal programs and institutional programs, including National Direct Student Loan, Supplemental Educational Opportunity Grant, Pell Grant, College Work Study, Nursing Loan, Nursing Scholarship, Illinois Guaranteed Loan, Federally Insured or Guaranteed Student Loan, Foundation Grant, SIUE Tuition Waiver or Scholarship, or Student-to-Student Grant. As new federal, state, and institutional programs are implemented in the future, they will also be covered by this policy.

The following policy model will be used to determine the minimum hours which full-time students should have at the end of each three quarters of attendance. Students who have not earned the cumulative hours required for the length of attendance will not be eligible for further financial aid until they earn the minimum credit hours required.

The following grades issued for coursework at SIUE shall constitute satisfactory completion of courses for the purposes of this policy: A, B, C, D, E, S (Satisfactory), and PASS. The following grades issued for coursework at SIUE *shall not* constitute satisfactory completion of courses for the purposes of this policy: W (Withdrawal), INC (Incomplete), DEF (Deferred), U (Unsatisfactory), AU (Audit), and NC (No Credit).

A maximum of 24hours of "Progress" (PR) grades will be accepted in meeting the requirements of "hours completed" under this policy.

MODEL HOURS REQUIREMENT

Attendance Year	Required Hours	Annual Requirement	Cumulative Required Hours	Maximum Allowable Terms on Financial Aid
Year 1	8x3=	24	24	3
Year 2	10x3=	30	54	6
Year 3	12x3=	36	90	9
Year 4	12x3=	36	126	12
Year 5	14x3=	42	168	15
Year 6	14x2=	28	196	17

Since not all students attend each quarter and not all students begin in the fall term, the above model will be applied to student records in relation to the maximum terms on aid. Receipt of any type of financial aid will count as a term of financial aid utilized.

After three quarters of attendance, financial records for all students will be reviewed. After three quarters of full-time attendance, students are required to pass 24 quarter hours in order to remain eligible for financial assistance; after six quarters of full-time attendance, students are required to pass 54 credit hours.

Students who attend half-time and receive part-time financial aid benefits are required to complete one-half of the full-time requirements (i.e., 12 credits in three quarters on financial aid.)

Students who fail to attain sufficient credit hours may pay their own way for one or more quarters and re-establish their eligibility by completing the credit hours necessary.

For students transferring to this University, satisfactory academic progress will be based solely upon hours completed and terms on financial aid at Southern Illinois University at Edwardsville.

Undergraduate students admitted to SIUE in a non-degree unclassified status (class code7) are ineligible for any federal student assistance or student employment.

Students terminated from eligibility for financial aid have the right of appeal in accord with the appeals procedures specified in the appeals policy below.

Athletes receiving NCAA awards (or covered by NCAA policies) are required to meet and maintain minimum standards as required under NCAA or other institutional policies. Similarly, Veterans receiving G.I. benefits are required to meet guidelines established by the Veterans Administration or the institution. Students must also comply with all institutional policies regarding academic standards. Students who are on academic suspension are not eligible for further financial aid until they are reinstated by Admissions and Records. Nothing in this policy shall be construed as a reduction of external requirements by another federal or state agency.

Appeals

Students who desire to appeal termination of their financial aid must make a written appeal to the Director of Financial Aid within 10 days of their notice of termination.

An appeals committee appointed by the Vice President and Provost or designee will consider appeals in a timely manner. The appeals committee will normally review the written evidence without conducting hearings unless unusual circumstances require otherwise. Students are encouraged to submit third party written documentation to support appeals.

The appeals committee may recommend continuation of financial aid but may make reinstatement conditional; possible conditions may include but are not limited to academic performance agreements, counseling, or developmental skills improvement.

TUITION AND FEES[1]

The tuition and fees charged students are established by the University Board of Trustees and are subject to change without prior notice whenever conditions make such changes necessary.

In order to obtain rental textbooks from Textbook Service, students must have paid their fees or made arrangements for fee payment through a deferment.

Student fees and charges are payable during the first week of classes of each quarter without penalty. Payment of student fees and charges is permitted through the second week of classes of each quarter. A late fee of $10.00 will be assessed after the first week of classes. Payment after the second week is not permitted.

Qtr.Hrs.	Tuition	Athletic Fee	Textbook Rental Fee	University Center Fee	Student to-Student[2] Grant Fee	Student Welfare and Activity Fee	Total
Undergraduate Students - Illinois Residents							
1	$ 26.05	$ 2.10	$ 1.85	$ 8.20	$ —	$ 3.00	$ 41.20
2	52.10	4.20	3.70	16.40	—	6.00	82.40
3	78.15	6.30	5.55	24.60	—	9.00	123.60
4	104.20	8.40	7.40	32.80	—	12.00	164.80
5	130.25	10.50	9.25	32.80	—	15.00	197.80
6-11	208.75	14.35	14.00	36.50	1.50	20.40	295.50
12-18	313.15	20.35	20.00	40.00	1.50	20.40	415.40
19 & over	339.15	22.45	21.85	48.20	1.50	23.40	456.55
Undergraduate Students - Out-of-State Residents							
1	78.15	2.10	1.85	8.20	—	3.00	93.30
2	156.30	4.20	3.70	16.40	—	6.00	186.60
3	234.45	6.30	5.55	24.60	—	9.00	279.90
4	312.60	8.40	7.40	32.80	—	12.00	373.20
5	390.75	10.50	9.25	32.80	—	15.00	458.30
6-11	626.25	14.35	14.00	36.50	1.50	20.40	713.00
12-18	939.45	20.35	20.00	40.00	1.50	20.40	1,041.70
19 & over	1,017.45	22.45	21.85	48.20	1.50	23.40	1,134.85
Graduate Students - Illinois Residents							
1	27.90	2.10	—	8.20	—	3.00	41.20
2	55.80	4.20	—	16.40	—	6.00	82.40
3	83.70	6.30	—	24.60	—	9.00	123.60
4	111.60	8.40	—	32.80	—	12.00	164.80
5	139.50	10.50	—	32.80	—	15.00	197.80
6-11	223.65	14.35	—	36.50	1.50	20.40	296.40
12-18	335.50	20.35	—	40.00	1.50	20.40	417.75
19 & over	363.40	22.45	—	48.20	1.50	23.40	458.95
Graduate Students - Out-of-State Residents							
1	83.70	2.10	—	8.20	—	3.00	97.00
2	167.40	4.20	—	16.40	—	6.00	194.00
3	251.10	6.30	—	24.60	—	9.00	291.00
4	334.80	8.40	—	32.80	—	12.00	388.00
5	418.50	10.50	—	32.80	—	15.00	476.80
6-11	670.95	14.35	—	36.50	1.50	20.40	743.70
12-18	1,006.50	20.35	—	40.00	1.50	20.40	1,088.75
19 & over	1,090.20	22.45	—	48.20	1.50	23.40	1,185.75

[1]Effective Summer 1984 and subject to change.

[2]Payment of the Student-to-Student Grant Fee is voluntary. Students may apply for a refund of the fee within the first two weeks of the quarter in the Office of Student Work and Financial Assistance.

MISSOURI RESIDENTS' RATES

The following tuition schedule has been established for students who are legal residents of the State of Missouri. Students who live in Missouri and take no more than 9 credit hours each quarter are allowed to pay at the same tuition rate as Illinois residents. It is understood that Missouri residents registering under this policy will take courses on a space available basis.

Qtr.Hrs.	Tuition	Athletic Fee	Textbook Rental Fee	University Center Fee	Student to-Student[2] Grant Fee	Student Welfare and Activity Fee	Total
Undergraduate Students - Missouri Residents							
1	$ 26.05	$ 2.10	$ 1.85	$ 8.20	$ —	$ 3.00	$ 41.20
2	52.10	4.20	3.70	16.40	—	6.00	82.40
3	78.15	6.30	5.55	24.60	—	9.00	123.60
4	104.20	8.40	7.40	32.80	—	12.00	164.80
5	130.25	10.50	9.25	32.80	—	15.00	197.80
6-9	208.75	14.35	14.00	36.50	1.50	20.40	295.50
10-11	626.25	14.35	14.00	36.50	1.50	20.40	713.00
12-18	939.45	20.35	20.00	40.00	1.50	20.40	1,041.70
19 & over	1,017.45	22.45	21.85	48.20	1.50	23.40	1,134.85
Graduate Students - Missouri Residents							
1	27.90	2.10	—	8.20	—	3.00	41.20
2	55.80	4.20	—	16.40	—	6.00	82.40
3	83.70	6.30	—	24.60	—	9.00	123.60
4	111.60	8.40	—	32.80	—	12.00	164.80
5	139.50	10.50	—	32.80	—	15.00	197.80
6-9	223.65	14.35	—	36.50	1.50	20.40	296.40
10-11	670.95	14.35	—	36.50	1.50	20.40	743.70
12-18	1,006.50	20.35	—	40.00	1.50	20.40	1,088.75
19 & over	1,090.20	22.45	—	48.20	1.50	23.40	1,185.75

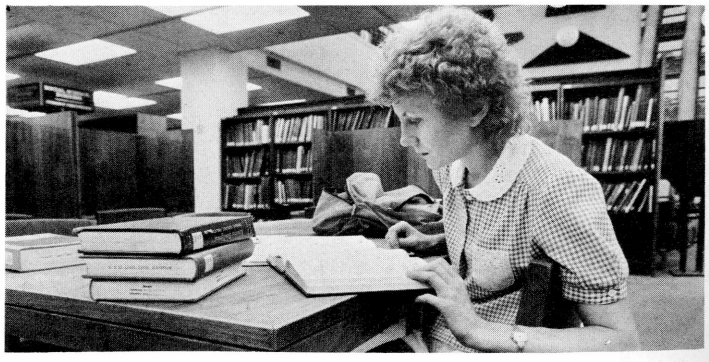
Qtr. Hrs.	Tuition	University Center Fee	Resident Center Fee	Textbook Rental Fee	Total
Resident Center - Undergraduate - Illinois Residents					
1	$ 26.05	$ 8.20	$ 3.50	$ 1.85	$ 39.60
2	52.10	16.40	7.00	3.70	79.20
3	78.15	24.60	10.50	5.55	118.80
4	104.20	32.80	14.00	7.40	158.40
5	130.25	32.80	17.50	9.25	189.80
6-11	208.75	36.50	25.50	14.00	284.75
12-18	313.15	40.00	36.00	20.00	409.15
19 & over	339.15	48.20	39.50	21.85	448.70
Resident Center - Undergraduate - Out-of-State Residents					
1	78.15	8.20	3.50	1.85	91.70
2	156.30	16.40	7.00	3.70	183.40
3	234.45	24.60	10.50	5.55	275.10
4	312.60	32.80	14.00	7.40	366.80
5	390.75	32.80	17.50	9.25	450.30
6-11	626.25	36.50	25.50	14.00	702.25
12-18	939.45	40.00	36.00	20.00	1,035.45
19 & over	1,017.45	48.20	39.50	21.85	1,127.00

[2]Payment of the Student-to-Student Grant Fee is voluntary. Students may apply for a refund of the fee within the first two weeks of the quarter in the Office of Student Work and Financial Assistance.

Qtr. Hrs.	Tuition	University Center Fee	Resident Center Fee	Textbook Rental Fee	Total
Resident Center - Undergraduate - Missouri Residents					
1	26.05	8.20	3.50	1.85	39.60
2	52.10	16.40	7.00	3.70	79.20
3	78.15	24.60	10.50	5.55	118.80
4	104.20	32.80	14.00	7.40	158.40
5	130.25	32.80	17.50	9.25	189.80
6-9	208.75	36.50	25.50	14.00	284.75
10-11	626.25	36.50	25.50	14.00	702.25
12-18	939.45	40.00	36.00	20.00	1,035.45
19 & over	1,017.45	48.20	39.50	21.85	1,127.00
Resident Center - Graduate - Illinois Residents					
1	27.90	8.20	3.50	—	39.60
2	55.80	16.40	7.00	—	79.20
3	83.70	24.60	10.50	—	118.80
4	111.60	32.80	14.00	—	158.40
5	139.50	32.80	17.50	—	189.80
6-11	223.65	36.50	25.50	—	285.65
12-18	335.50	40.00	36.00	—	411.50
19 & over	363.40	48.20	39.50	—	451.10
Resident Center - Graduate - Out-of-State Residents					
1	83.70	8.20	3.50	—	95.40
2	167.40	16.40	7.00	—	190.80
3	251.10	24.60	10.50	—	286.20
4	334.80	32.80	14.00	—	381.60
5	418.50	32.80	17.50	—	468.80
6-11	670.95	36.50	25.50	—	732.00
12-18	1,006.50	40.00	36.00	—	1,082.50
19 & over	1,090.20	48.20	39.50	—	1,177.90
Resident Center - Graduate - Missouri Residents					
1	27.90	8.20	3.50	—	39.60
2	55.80	16.40	7.00	—	79.20
3	83.70	24.60	10.50	—	118.80
4	111.60	32.80	14.00	—	158.40
5	139.50	32.80	17.50	—	189.80
6-9	223.65	36.50	25.50	—	285.65
10-11	670.95	36.50	25.50	—	732.95
12-18	1,006.50	40.00	36.00	—	1,082.50
19 & over	1,090.20	48.20	39.50	—	1,177.90

AUDITED COURSES

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



REGISTRATION

Registration is conducted in the Enrollment Center, Room 1309, Rendleman Building, prior to the beginning of each quarter, usually commencing the sixth week of the previous term.

All registrations are by appointments made by the schools or by the Office of Academic Services. More detailed information regarding dates is contained in the quarterly schedule of classes.

Only those students who have completed the admission process and the mandatory advisement procedure will be permitted to register. To determine eligibility, students should refer to the admission and advisement procedures printed elsewhere in this catalog. Any registration may be declared invalid for scholastic, disciplinary or financial reasons attested to by the Office of Admissions and Records, Dean of Students, or the Office of the Bursar.

Handicapped students should consult the quarterly schedule of classes for registration information.

CHANGES IN REGISTRATION

Any change in a schedule must be made in the Enrollment Center, Room 1309, Rendleman Building. Students are officially registered for only those courses and sections appearing on their registration documents, as modified by any program changes which they may have made.

Students desiring to make program changes must go to the Enrollment Center, present a Student Schedule Form, and fill out a program change. NO CHANGE IS OFFICIAL UNTIL THIS PROCEDURE IS COMPLETED. Students may add classes only if additions have been approved by their advisers and are shown on a signed Course Request Form (CRF).

Adding Classes

Week 1: Students may add classes that are not filled. They may add "closed" classes only with a "Class Permit Card," signed by the instructor.

Week 2: Students must have a "Class Permit Card" or Program Change Form with signatures from the instructor and chairperson for any class they wish to add.

Week 3: Students may add only classes that begin after the second week—workshops, independent readings, etc.

When 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 the tuition and fees have not been paid, a new fee card is prepared to reflect the increased amount.
2. If the tuition has been paid, the additional hours will generate supplemental billings which are mailed to students by the Enrollment Office.

Dropping Classes

Weeks 1 & 2: Students may classes drop without permission of their instructors and have no entry on transcript.

Weeks 3 - 5: Students may drop classes without permission of their instructors. Grade of W is automatically assigned.

Weeks 6 - 8: Students may drop classes after consultation with their instructors and advisers, but a grade of WP or WE must be assigned by instructors. A grade of WE will be computed as an E in the grade point average (GPA).

After Week 8: Students may not drop classes.

When students drop classes and are entitled to a refund of tuition and fees, the procedure is as follows:

1. Students initiate an Application for Refund in the Enrollment Office.
2. After processing of the Application for Refund form in the Office of the Bursar, refunds are prepared for students.

STUDENTS WHO DROP ALL CLASSES are considered to be withdrawing from the University for that term, and the transaction should be initiated according to the instructions below. Absence alone does not constitute withdrawal, and students should follow the noted instructions to avoid the assignment of failing grades.

Mere attendance does not constitute registration in a class nor will attendance in a class for which students are not registered be a basis for asking that a program change be approved.

WITHDRAWING FROM THE UNIVERSITY

Students who find it necessary to withdraw from school during any quarter must report to the Enrollment Center, Rendleman Building, Room 1309, to inititate official withdrawal procedures. Evening and weekend students who are unable to complete the procedures through the Enrollment Center may do so by contacting the Office of Academic Services, Peck Building, Room 1315. All withdrawals must be completed by the end of the eighth week of classes.

A refund of all tuition and fees with the exception of the late registration fee is permitted only if withdrawal and refund requests are officially completed within the first two weeks of the quarter. All textbooks or library materials on loan must be returned before a withdrawal becomes effective and a refund is approved.

Please consult the registration calendar in the quarterly class schedule for the specific dates and deadlines concerning withdrawal and refunding of fees.

Students who receive notification of academic suspension

after completing registration for the next quarter will be withdrawn automatically from the University. If suspended students have already paid tuition and fees for the next quarter, they may obtain a refund by contacting the Enrollment Center.

Withdrawing With Financial Assistance

Students currently receiving financial assistance and those students with long-term loans such as National Direct Student Loans (NDSL), Nursing Loans, or Foundation Loans, must report their withdrawal to the Office of Student Work and Financial Assistance (SWFA). Students receiving NDSL, Nursing, or Foundation Loans must also contact the Bursar's Office for an exit interview prior to withdrawal. Those receiving Guaranteed Student Loans must notify both the SWFA Office and the bank from which they obtained the loan. ISSC regulations require that all monetary award recipients withdrawing from school complete a formal withdrawal request. ISSC may apply a penalty of a year suspension of the award for failure to file a formal withdrawal request.

Students withdrawing prior to the midpoint of a term may be requested to repay part of a previously advanced grant or loan. Those withdrawing during the first two weeks of a term and receiving federal or state assistance must make a full repayment to the fund for any monies previously advanced.

Withdrawal during the refund period (the end of the second week of the term) removes the obligation to pay deferred tuition and fees so long as the formal withdrawal procedure is followed. Withdrawal after the refund date obligates students to pay the full deferred amount in all cases. This applies even though the financial aid payment was not in the amount expected.

Students who have received financial aid and have officially withdrawn or otherwise separated from the University and are due a refund of tuition and fees may be required to apply that refund toward repayment of financial aid funds which have been received.

Those students who terminate attendance after the tuition and fee refund date but have received financial aid may be considered to have been "overpaid." The SWFA office will make this determination taking into account the week of withdrawal, the students' college cost budget, and the amount of financial aid received in the payment period. Students who are in an overpayment status will be advised in writing of such overpayment and will be asked to repay immediately.

ACADEMIC SUPPORT SERVICES

ACADEMIC SERVICES

Students will find a complete range of academic support services in the Office of Academic Services including academic, career and personal counseling/advisement; foreign student advisement; academic enrichment courses and workshops; tutorial assistance; testing services; career planning and placement assistance; and evening and weekend services.

The Office of Academic Services, located centrally in the Peck Building, provides a full complement of academic services for a variety of student needs. Evening and limited weekend hours are maintained for the convenience of students. For information, please call (618) 692-3701.

ORIENTATION AND NEW STUDENT LIFE

The Orientation and New Student Life Program is designed to help all new students adjust to the campus community quickly and comfortably so that academic and social experiences at the University will be as rewarding as possible. The program provides information on the required procedures which new students must complete before they are permitted to attend classes. Such procedures include academic advisement for both general education and departmental requirements, registration, vehicle registration, and identification cards. Information about special services provided for all students by the University (tutoring, health service, student work and financial assistance, etc.) is also provided.

In order to assure all new students the opportunity for Orientation, regularly scheduled orientation workshops are offered every quarter. All workshops are conducted prior to the quarter of matriculation. All undergraduate students admitted to the University are automatically invited and strongly encouraged to participate in an orientation workshop. For more information about the orientation program, please call (618) 692-3705.

ACADEMIC COUNSELING AND ADVISEMENT

Students entering the University are assigned an academic counselor/adviser who provides assistance to students regarding appropriate courses, career options and related matters. Advisement is mandatory for *all* students prior to registration each quarter.

Generally, students may declare a major at any time, but some schools have admission criteria which must be completed prior to declaration. Declaration must be completed prior to the senior year.

Students remain with the assigned counselor/adviser until the declaration of a major. After students have declared a major, they are advised by advisers in the department. The declaration of major is processed in the Office of Academic

Services.

During advisement sessions students will obtain the signature of the counselor/adviser on the Course Request Form (CRF). The CRF is required for admission into registration. Students may register for only those courses listed on the signed CRF. For additional information regarding registration, please refer to the section on registration.

Counselors/advisers are located in Peck Building 1315; appointments may be made by calling (618) 692-3701.

COUNSELING

Students wishing to obtain psychological, career, crisis, or personal counseling may contact the professional counselors in the Office of Academic Services, Peck Building 1307. Appointments may be made at the office or by calling (618) 692-3705. Confidentiality is assured.

FOREIGN STUDENT SERVICES

Foreign students are provided academic assistance throughout the period of attendance at SIUE by the Foreign Student Adviser located in Room 1309 of the Peck Building in the Office of Academic Services. Prior to arrival a complete financial evaluation of projected expenses is provided to students. Upon admission, information to familiarize students with the Metro-East and St. Louis areas is provided. After arrival, orientation sessions, either individual or group, are conducted.

Students wishing information regarding immigration requirements may contact the Foreign Student Adviser. Assistance is offered regarding requirements and form verification for students. The Foreign Student Adviser can assist students in locating temporary housing, in arranging transportation and in making the transition into a new culture.

Advisement for all students, including foreign students, is mandatory. The Foreign Student Adviser maintains liaison with the academic departments to insure that students maintain satisfactory academic progress.

Events for students are planned in cooperation with the International Students Council. Students wishing host families are assisted through the International Hospitality Program.

SPECIAL ACADEMIC ASSISTANCE

All freshman and transfer students with 24 quarter hours or less or with an English, mathematics or composite ACT score of 18 or below and students with no ACT scores are given placement tests in English, mathematics, and reading. On the basis of test results, recommendations are made regarding specific courses which students should take to enhance their academic opportunities.

Through the courses offered, students may enrich their academic preparation in elementary mathematics, college reading, and basic writing. Because these courses are considered preparatory for other University courses, they carry institutional credit. Basic academic skills often redeveloped through these enrichment courses, is essential for academic success at SIUE.

Students who desire assistance in developing sound study habits, note taking techniques, test taking skills, reading speed and comprehension, and other techniques essential for academic success may wish to take advantage of the special courses designed for such purposes.

TUTORIAL ASSISTANCE

Tutorial assistance is available to students free of charge. Students seeking assistance in mathematics, statistics, chemistry, physics, biology, engineering, and other subject areas may receive tutoring from qualified, upper level students, graduate students, and professional staff from the Office of Academic Services in the Tutoring Laboratory located in the Peck Building, Room 1414. Library and study aid materials are available for many courses. Microcomputers and University computer networks are also available for computer-assisted instruction in the Microcomputer Lab in Peck Building 1410. Tutoring is conducted primarily by appointment; however, drop-in assistance is given on a first-come, first-served basis if a tutor is available. Students can make appointments by calling 692-3717.

Students who would like to improve their reading skills can receive tutoring in the Reading Laboratory in the Peck Building, Room 1412. Instructors will provide assistance to increase comprehension and to build vocabulary skills, increase reading rates, and develop techniques for reading textbook materials. Appointments can be made in person or by calling 692-3717.

Students who would like to improve their writing skills may receive assistance in the Communication Laboratory located in the Peck Building, Room 1404. Self-instructional materials in organization, paragraphing, term paper writing, grammar, spelling and vocabulary building are available. Students can also receive assistance in writing papers, reports or theses.

TESTING SERVICES

A complete range of testing services is available to students. The Office of Academic Services administers the Miller Analogies Test; Graduate Record Examination; Medical College Admission Test; American College Test (ACT); Proficiency Examination Program; College Level Examination Program

(CLEP); Illinois Real Estate Examination; ETA: Insurance Examination; Comprehensive English Language Test; and University placement tests.

Students can earn academic credit by taking the CLEP tests and proficiency examinations. For more information, please refer to the section entitled University College and General Studies.

Students whose ACT scores in English, mathematics and/or the composite score are 18 or below are given placement tests in English, mathematics and reading to insure proper placement in the related courses.

Students who desire more information about testing services should stop by Room 1307 in the Peck Building or call (618) 692-3705.

CAREER DECISION MAKING

Students and graduates who wish to examine career options and opportunities may avail themselves of the many services offered by the Office of Academic Services. Students may seek assistance from their academic counselor in exploring career possibilities and complementary majors by utilizing the Guidance Information System (GIS), a computer-based system containing information about careers, two and four year colleges and universities, and financial aid. Career Planning and Development, a 2-hour credit course, is designed to give students the opportunity to explore different careers in a classroom setting and come to a better understanding of their own goals as well as the career opportunities available to them.

An extensive library of career information is available. Students who would like career assistance should contact their academic counselor in the Office of Academic Services in the Peck Building, Room 1315 or call (618) 692-3701.

PLACEMENT SERVICES

Closely allied to the career decision-making services are the placement services offered by the Office of Academic Services. Students who are nearing graduation or who wish to gather information about careers and job search strategies will want to visit the Placement Office located in the Peck Building, Room 1312. A resource library provides information about opportunities in business, industry, government and education. Workshops on resumes, letters of application, interviewing skills and job search strategies are offered at various times during the quarter. Weekly vacancy bulletins are issued each Wednesday for business, industry and government openings and on Friday for education openings. Employers from many businesses and organizations visit the office to interview students interested in employment. Credential files are maintained for students registered with the office and can be sent to prospective employers. Seniors desiring to participate in on-campus interviews through the Placement Office should register with the office at least three quarters prior to graduation. Students interested in learning more about the services offered by the Placement Office or those wishing to use these services should stop by Room 1312 in the Peck Building or call (618) 692-3708.

EVENING AND WEEKEND STUDENT SERVICES

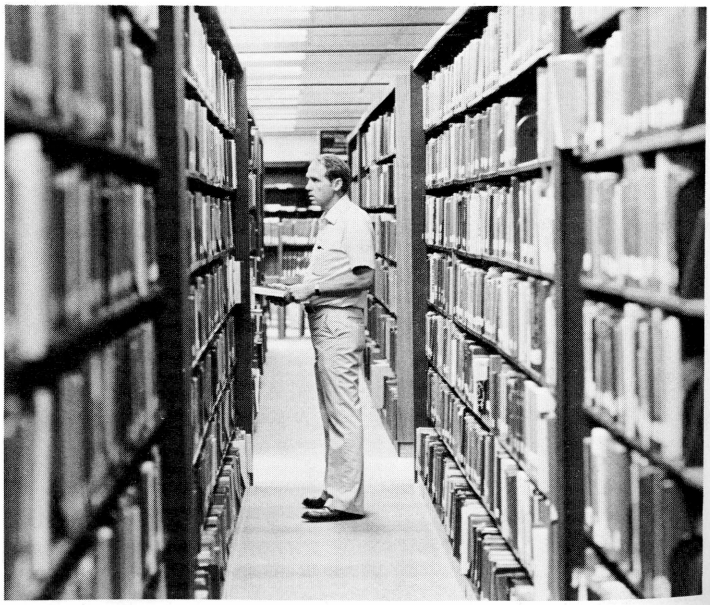
Students desiring assistance in the evening and on weekends will find a range of services available through Evening and Weekend Student Services located in the Peck Building, Room 1315. Through this office, persons may obtain applications for admission, order and pick up transcripts, drop or add classes and secure a housing application. Students may also obtain parking stickers and identification cards. The office is open from 5:00 p.m. to 8:00 p.m. Monday through Thursday throughout the quarter and from 8:00 a.m. to 1:00 p.m. the first three Saturdays of each quarter and Saturdays during registration. Students wishing assistance should call (618) 692-3701.

THE LIBRARY

Lovejoy Library maintains a collection of approximately 738,000 bound volumes and subscriptions to 3,800 periodicals. In addition, it maintains a microform collection of 457,000 items, an audiovisual collection of 33,000 titles, an extensive U.S. Government documents depository of 458,000 items, and other material in research and map collections numbering 300,000 items.

The library contains a complete reference collection. The library staff is on duty all hours the library is open to assist users in locating information and resources either on site or at other libraries. Basic telephone reference service is also available although priority is given to on-site users.

For resources which the library does not own, direct access is maintained to 22 libraries in the State of Illinois, including that of University of Illinois. Through this system, access to over 6,000,000 titles is facilitated. A user may search the catalogs of these collections by means of a computer terminal and order material through Interlibrary loan. A nationwide network is also used with access to over 4,000 libraries, and conventional interlibrary loan is available to libraries worldwide.



In addition to interlibrary loan, faculty have direct borrowing privileges at a number of libraries in St.Louis. University students may gain borrowing access through Info Pass after Lovejoy's resources are exhausted. The reference librarian on duty can assist with the procedures.

Lovejoy Library maintains an online computer search service to over 130 data bases. Included are data base searches for such titles as *Psychological Abstracts, Engineering Index* and *Chemical Abstracts.* There is a charge for this service. The subject librarian can assist with instructions.

Audio-Visual Services, located in Lovejoy Library, maintains a collection of films, video tapes and other media formats, primarily for classroom instruction. Facilities are available for viewing and review of the media in the collection. In addition, Audio Visual Services maintains production facilities for faculty for classroom instruction. Film scheduling and equipment set up are also provided.

Students may use audio-visual production equipment in the Self-Help area for classroom projects. A staff member is available for consultation. There is a charge for the cost of materials.

A Self-Instruction lab is maintained in Lovejoy Library. The lab contains viewing and listening hardware for all formats of media. Materials for the lab may be obtained from the collection, from faculty-produced programs, or borrowed. Both evening and weekend hours are maintained.

Lovejoy Library, in cooperation with the Central Affirmative Action Office, maintains a facility for visually impaired students, faculty, and other users. The area is equipped with a Visual Tek, Brailler, and other audio visual equipment. In addition, a Kurzweil Reader is available. This machine will convert conventional printed material to a speech format. Other available equipment includes a braille dictionary and the Talking World Book Encyclopedia.

The library is open approximately 90 hours a week during the regular academic quarters. During quarter breaks the library is open 8:00 to 5:00 Monday through Friday. Library hours are posted at the beginning of each quarter. Information regarding hours may be obtained by calling 692-2602.

UNIVERSITY BOOK SERVICES

The University, through a nominal rental fee, supplies basic texts for undergraduate courses (including 400-level courses) through Textbook Service, located in the basement of Lovejoy Library. Graduate students enrolled in undergraduate classes must purchase texts through Textbook Service. Books for 500-level classes and above are available at the University Bookstore in the University Center. Extended hours for the issue and return of textbooks are announced each quarter. In order to obtain rental textbooks from Textbook Service, students must have paid their fees or made arrangements for fee payment through a deferment. Students may call Textbook Service at 692-3020 for textbook information.

The University Bookstore, located on the first floor of the University Center, provides textbooks for graduate classes and supplementary texts for undergraduate courses, as well as supplies, clothing, gifts and sundries. The Bookstore offers an extensive selection of over 10,000 titles in hardback and paperback, including a wide selection of magazines. The store has evening as well as day hours for the convenience of students.

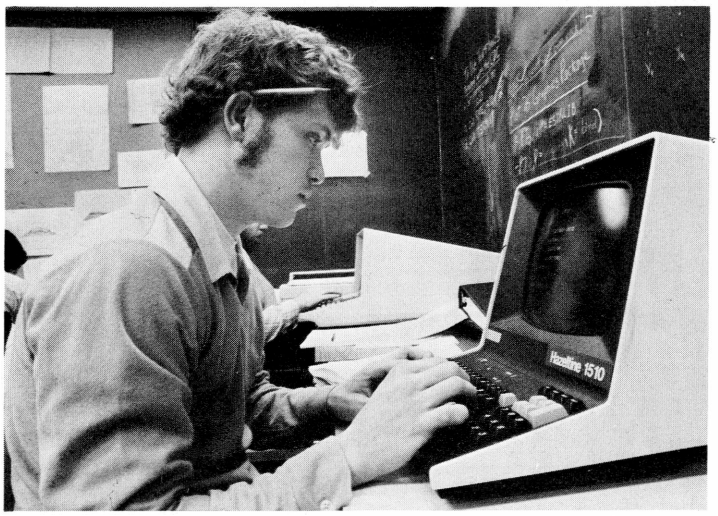
MICROCOMPUTER LABORATORIES

The University provides four microcomputer laboratories for students, faculty, and staff. Three of the laboratories are located on the Edwardsville campus while one is located on the East St. Louis campus.

The main campus laboratories are located in Peck 1410 and Lovejoy Library basement 0054. The Peck laboratory and one of the Lovejoy laboratories provide open access opportunities to students, faculty, and staff possessing current SIUE identification cards or user authorization cards. The third main campus microcomputer laboratory, also located in the Lovejoy Library basement, is primarily for classroom instructional purposes. Students, faculty, and staff interested in the open access laboratories may reserve user time up to 48 hours in advance by signing a reservation sheet.

All microcomputer laboraties are equipped with Apple IIe microcomputers; most units in the Lovejoy Library are fully equipped with CP/M capability. For more information, please call 692-3717 and 692-3050.

Students registered for computer classes may utilize the microcomputer facilities in Room 1008 at the East St. Louis campus by seeking approval through the Director's office. For information, please call 271-3000.



SERVICES FOR HANDICAPPED PERSONS

The Coordinator of Affirmative Action in the Central Affirmative Action Office is responsible for the implementation and coordination of many of the programs, activities, and services for handicapped persons. The Coordinator offers guidance and counseling to students at SIUE as well as referrals to related

offices and departments. Assistance in obtaining specialized equipment and supplies, in meeting individualized needs, and in utilizing available services and programs is provided.

All handicapped persons are invited to visit the Central Affirmative Action Office in the Rendleman Building at their earliest convenience to meet the Coordinator and discuss available services. Individuals may contact the Coordinator by calling (618) 692-2333.

SERVICES FOR VETERANS

The Office of Veterans Affairs is located in Room 1207, Rendleman Building. The office is staffed by veterans and offers comprehensive services to veterans including employment referrals, tutorial assistance, and peer counseling. The office can also provide general information regarding veterans' benefits and legislation, and provide admissions and financial aid referral.

The Office of Veterans Affairs conducts an active outreach program in which veterans in the community are contacted and advised of their benefits and assisted in making application for such.

UNIVERSITY HONORS PROGRAMS

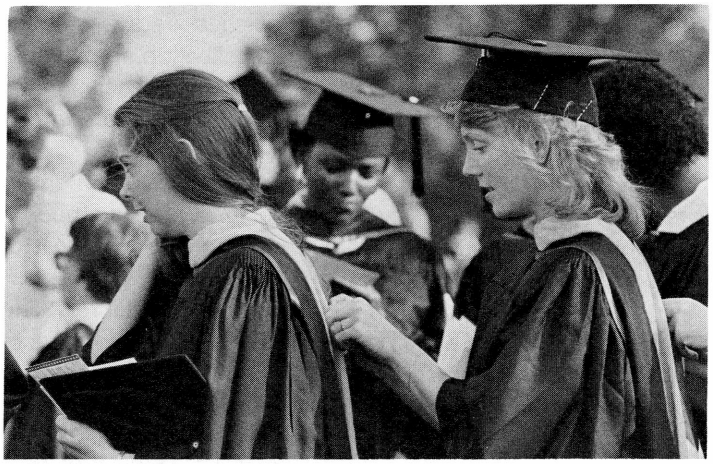
THE DEAN'S COLLEGE

The Dean's College was created to assist outstanding students in planning their academic programs. It enables talented students to study in one or two academic areas in depth. The Dean's College serves students from all subject areas.

Students admitted to The Dean's College plan their academic programs with the help of faculty advisers in their major areas of interest. Some of the usual graduation requirements are waived, so that students have time to explore a number of areas of interest and to study more intensively an area of concentration. At the same time, students take courses in subjects other than the major area of concentration so as to get a broad education and make the most of the opportunities offered by the University. (Each Dean's College student and Presidential Scholar must complete at least 12 quarter hours of credit in each of the four areas of fine arts, humanities, sciences, and social sciences. For more detailed information, please inquire at the Office of The Dean's College.) Faculty advisers help students develop sound academic programs to fit their needs; advisers are available at given times to discuss academic and other problems with students. Under a faculty adviser's supervision, Dean's College students may take up to 4 hours of independent study (Dean's College Honors Hours) during each quarter of full-time enrollment.

Freshman, sophomore, and junior level students who have been admitted to Southern Illinois University at Edwardsville and who have a grade point average of 4.5 (or higher) are eligible to apply. Letters of recommendation from five faculty members who are familiar with the student's academic work are required. High-ranking high school seniors are encouraged to apply for admission to The Dean's College upon graduation. Mature persons who have been away from academic life for a number of years may find The Dean's College particularly appropriate. A personal interview is required as the first step in applying.

Selection of Dean's College students is made by The Dean's College Coordinator on the basis of candidates' previous academic work together with the letters of recommendation from former instructors. Candidates complete the admission requirements by filing a four-year program of courses that they plan to take.



PRESIDENTIAL SCHOLARS PROGRAM

The Presidential Scholars Program, funded principally by individual grants through the Southern Illinois University at Edwardsville Foundation, provides individualized educational opportunities to selected outstanding students. By contributing to the scholarly climate and to the intellectual and cultural life of the University, the program benefits all students who wish to take full advantage of the educational opportunities it offers.

Persons selected as Presidential Scholars will:

- Receive a scholarship for up to twelve quarters covering all tuition and fees for undergraduate programs.
- Choose from a variety of special honors and advanced courses to provide a rich and challenging program of studies.
- Work with a mentor, a faculty member who, by reason of scholarship, interest, and sensitivity, is highly qualified to serve as a personal adviser and teacher.
- Become a member of The Dean's College and satisfy all Dean's College requirements.
- Assist in the promotion of scholarly activity and in the intellectual and cultural life of the University.

Selection of Presidential Scholars is made by the Presidential Scholars Committee on the basis of the candidates' previous academic work and special talents. The Program is

open to any student who is ready for university-level work but has not attended college. To be considered for the scholarship, the following items should be submitted:

- An application for admission to the University.
- A letter expressing interest in the Program and an outline of educational goals.
- ACT report or SAT scores.
- Three letters of recommendation from high school teachers or counselors.
- Evidence of special talents or abilities, if applicable.
- Evidence of extra curricular activities, if applicable.
- Official copy of high school transcript, indicating rank in class (sixth semester is sufficient).

Students who wish to be considered for the program are requested to mail materials by February 1 to the Presidential Scholars Program, Office of Admissions and Records, Southern Illinois University at Edwardsville, Edwardsville, IL 62026-1001.

ACADEMIC RECOGNITION

Students who demonstrate outstanding scholarship are recognized through the Dean's List, Honors Day, and Commencement activities.

In order to be included on the Dean's List students must have a minimum of 12 quarter hours calculated and earn a minimum grade point average of 4.50 for the quarter. The Dean's List is published at the end of each quarter.

Honors Day Convocation, held each spring, recognizes students who received undergraduate degrees the previous August, December, or March and attained an SIUE grade point average of 4.50 or higher or who are candidates for Bachelor of Arts or Science degrees in June and have an SIUE grade point average of 4.50 or higher. Additionally, students who are enrolled for the spring quarter and who have a grade point average of 4.50 or higher are recognized. In order to be eligible for Honors Day, students must have passed 24 hours at Southern Illinois University at Edwardsville. Courses taken on a Pass/No Credit basis will not apply.

Graduating seniors who have achieved outstanding scholarship are recognized at Commencement on the graduation program; their diplomas designate Highest Honors (4.90 or higher), High Honors (4.75-4.89), or Honors (4.50-4.74).

OFFICE OF CONTINUING EDUCATION

The Office of Continuing Education provides support services to departments offering classes at SIUE's Resident Centers and other off-campus locations and assists students who participate in off-campus classes. Staff from the Office of Continuing Education attend the opening session of classes to assist students with admission, registration, fee payment, financial aid inquiries, and textbook distribution. Faculty and students may contact this office for help with matters related to instruction and attendance at off-campus classes.

For schedules of classes being offered off campus and for information about enrolling in these classes, contact the Office of Continuing Education, Campus Box 84, Southern Illinois University at Edwardsville, Edwardsville, Illinois 62026-1001, or phone (618) 692-3210. Information about classes at the Scott Air Force Base Resident Center may also be obtained directly from the SIUE Resident Center Office at Scott Air Force Base, phone (618) 256-4169 or (618) 692-2630.

In addition to providing services for off-campus classes, the Office of Continuing Education, through the Office of Conferences and Institutes, assists University departments in the coordination of meetings, seminars, workshops and other activities. The professional staff may be contacted by calling (618) 692-2660.

UNIVERSITY COLLEGE AND GENERAL STUDIES

UNIVERSITY COLLEGE

University College serves as the academic home for all undergraduate students entering the University and for all undergraduates with undeclared majors. The primary aim of the College is to provide effective academic direction for undergraduate students. The College also serves as the administrative home for the Air Force ROTC detachment, the Bachelor of Liberal Studies degree, the Dean's College, the General Studies Program, the Presidential Scholars Program, and the Student Colloquium.

DECLARATION OF MAJOR

Students are classified in University College until they officially declare a major, which they are required to do prior to their senior year. Students initiate the declaration-of-major process in person in the Office of Academic Services, after which they are classified in the academic unit which grants the degree sought. Students who wish to change their major or to declare or change a minor should return to the Office of Academic Services to initiate a new or supplemental declaration.

GENERAL STUDIES

Purposes

The general education program is designed to assist students in acquiring the knowledge, understanding, skills and intellectual attitudes characteristic of well-educated persons. Students taking general studies courses will work toward an understanding of what is known of the universe, society, and the individual, and of the ways in which such knowledge is acquired. Opportunities will be provided for students to become familiar with art, literature, philosophy and science, and with the customs and outlooks of a variety of cultures. Opportunities will also be provided for students to improve their skills in written and oral communication, in reasoning, in mathematical analysis and computation, and in understanding and using foreign languages. The general education program will help students develop an appreciation of artistic and cultural achievements, intellectual curiosity, an openness to questions and to alternative views, an appreciation of the contributions science makes to an understanding of the world, a recognition of the relationships among disciplines, and a sensitivity to the aspirations and struggles of humanity.

Requirements

General Studies courses are organized into five comprehensive areas, each of which has a special contribution to make toward the development of students. The University believes that anyone who is truly educated should have some familiarity with each of these areas.

GSK—Skills—Basic courses in written expression, oral communication, and problem-solving prepare students to think critically, analyze problems rationally, and communicate their insights and observations clearly and effectively to others. Students are encouraged to fulfill the skills requirement early in their academic careers.

GHA—Humanities and Fine Arts—Courses in Humanities and Fine Arts deal with values and issues that have intrigued and delighted human beings throughout recorded time. Introductory courses in literature, philosophy, language, art, music, theater, and related areas provide an awareness and appreciation of aesthetic expressions and moral issues and allow students to clarify their own values.

GSM—Natural Sciences and Mathematics—The General Studies science courses aim to provide students with an understanding of the structure of the sciences, the conceptual schemes they employ, the forms of reasoning used to reach their conclusions, and the procedures used to verify their validity. Improved understanding should lead to interest in the sciences and appreciation of the role of the sciences in human experience. Students approaching the study of science should find that discovery is a delightful intellectual experience.

GSS—Social Sciences—Courses in this area provide an understanding of prehistoric, historic, and contemporary societies and cultures. They introduce the methodologies which are currently used in the study of human societies and provide insights and information useful in thinking about how people relate to one another, how they build institutions, and how they respond to their physical and social environment.

GIS—Interdisciplinary Studies—Life circumstances usually are not confined to topics found entirely within the boundaries of a single discipline. In recognition of this fact the General Studies program contains Interdisciplinary Studies, including courses whose subject matter crosses the lines of

traditional academic fields. Those courses are taught by faculty from at least two of the broad areas of the program or from two different schools of the University.

Students are required to complete a specified number of hours in each of the following areas of general studies:

GHA Humanities and Fine Arts 16
Students select any courses listed in the GHA area to total 16 hours.

GIS Interdisciplinary Studies 4
Students select from the courses listed in the GIS area.

GSK Skills 16
Students are required to take 8 hours of written communication (GSK 101 and 102) 8
Students must take 4 hours of oral communication (GSK 123) 4
Students must take 4 hours of reasoning or problem solving (GSK 152 or 162) 4

GSM Natural Science and Mathematics 16
Students select any courses listed in the GSM area to total 16 hours.

GSS Social Science 16
Students select any courses listed in the GSS area to total 16 hours.

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Students are automatically excused from 8 hours in the one area among GHA, GSM, and GSS most closely related to their chosen area of concentration. The 8 hours remaining to be taken in that area must be in courses offered by departments other than that of the major. The list of approved waivers appears later in this section. 8

Total 60

ADDITIONAL GENERAL STUDIES INFORMATION

The required totals in the General Studies program may be partially satisfied, reduced, or modified by several circumstances.

Transfer Students

Students graduating with an associate degree in a baccalaureate-oriented program (Associate in Arts or Associate in Science degree) from a public two-year college in Illinois may be admitted to the University having junior standing and having completed the lower division general education requirements. Graduates of other accredited two-year institutions may be granted similar consideration. See the Admission section of this catalog for complete details.

Waivers

Students are entitled to waive 8 hours in the area (GHA, GSM, GSS) most closely related to the area in which they will concentrate their work. The following majors are considered to have waivers as shown:

Area GHA—Majors: American studies, art, English, foreign languages, mass communications, music, philosophy, speech communication, speech pathology and audiology, theater.

AREA GSM—Majors: Biology, chemistry, civil engineering, computer science, construction, earth science, electrical engineering, engineering science, environmental systems technology, general science and mathematics, health education, industrial engineering, mathematics, nursing, physical education, physical science, physics, recreation.

Area GSS—Majors: Accountancy, American studies (GHA or GSS), anthropology, business administration, business economics, business education, economics, geography, government, history, human services, psychology, social work, sociology.

Substitutions

Students are permitted to substitute certain courses in other areas for the General Studies courses. Students who have chosen a major cannot use courses taught by the faculty of their major department to fulfill the requirements in General Studies. The following courses have been approved as substitutes:

Chemistry 110-4	for	GSM 120-4
Chemistry 125-5	for	GSM 120-4
Biology 100-4, 101-4	for	GSM 130-4
Biology 302a-5 or 302c-5	for	GSM 230-4
Biology 303c-4	for	GSM 131-2
Mathematics 125-4	for	GSM 244-4
Mathematics 150a-4	for	GSM 144-5
Mathematics 410a-5	for	GSM 244-4
Physics 206a-5	for	GSM 101-4
Physics 211a-4	for	GSM 101-4
Psychology 300a-4	for	GSS 260-4

Engineering Majors Only:

Economics 201-4	for	GSS 150-4
Philosophy 311-4	for	GHA 322-4

Nursing Majors Only:

Philosophy 312-4 for GHA 322-4

Substitutions of Open University courses previously offered:

OUHU 201, 202, 203-24	for	GHA 12 hours and GIS 4 hours
OUSS 204, 205, 206-24	for	GSS 16 hours
OUIS 301-8	for	GIS 4 hours
OUST 201, 202, 203-24	for	GSM 16 hours
OUST 221, 222, 223-24	for	GSM 16 hours

(When sequences are not completed, courses substitute for General Studies as four hours for each course of 8 hours.)

Advanced Standing

It is possible for students to gain advanced standing (that is, to bypass certain requirements without credit in the corresponding courses) in some areas. Eligibility for advanced standing is determined on the basis of high school preparation in the area and scores on the ACT test. Students should consult their academic adviser about specific possibilities for advanced standing. Following are the current criteria or qualifications for advanced standing for certain General Studies courses in each area. (The ACT scores used are standard scores.)

GSK Area

123—4 Oral Communication of Ideas (speech)
A course in speech in high school and 23 or above on ACT English.

GSM Area

101—4 Introduction to Physical Science
One year of high school physics and 13 or above on ACT mathematics, and 28 or above on ACT natural science.

110—4 Earth and Its Geographic Environment
One course of earth science in high school and 28 or above on ACT natural science.

111—4 Earth and Its Geologic Environment
One year of earth science in high school and 28 or above on ACT natural science.

120—4 Contemporary Chemistry
One semester of high school chemistry and 13 or above on ACT mathematics, and 28 or above on ACT natural science.

130—4 Contemporary Biology
One year of high school biology and 28 or above on ACT natural science.

131—2 Life: Ecology and Diversity
or
230—4 Man and His Diseases
Two years of high school biology with a minimum grade of B and 28 or above on ACT natural science.

144—5 Basic Concepts of Algebra
Six semesters of college preparatory mathematics (equivalent to two years of algebra, one year of plane geometry) with a C average and no failing grade and 24 or higher on ACT mathematics.

GSS Area

101—4, 102—4, 104—4 Introduction to the History of Western Civilization
One year of world, western or European history in high school and 27 or above on ACT social science.

130—4 Sociology
A course in sociology in high school and 27 or above on ACT social science.

150—4 Economics
A course in economics in high school and 27 or above on ACT social science.

200—4, 201—4, 202—4 U.S. History and Constitution
One year of U.S. History in high school with a grade of B and 27 or above on ACT social science.

220—4 U.S. Constitution
A course in American government or civics in high school and 27 or above on ACT social science.

240—4 Geography for Modern Man
A course in geography in high school and 27 or above on ACT social science and 29 or above on ACT natural science.

260—4 Modern Challenges for Psychology
A course in psychology in high school with a grade of B and 26 or above on ACT social science and 28 or above on ACT natural science.

COURSE ALTERNATIVES

Extension and Correspondence

While Southern Illinois University at Edwardsville does not maintain a correspondence school or extension courses, courses of this nature taken from institutions which are accredited by appropriate regional accreditation associations are regularly accepted, if the grade earned is C or above. A maximum of one half the number of hours required for a bachelor's degree, or 96 quarter hours, may be completed through correspondence and extension courses combined. Of this total, not more than 48 hours may be taken through correspondence.

Proficiency Examinations

Students may earn course credits by demonstrating their proficiency in certain subjects. The Office of Academic Services (Peck Building 1307) maintains a list of those courses for which

proficiency examinations are regularly available. Information regarding time and place of testing and other detailed instructions are included. Tests are given by the academic departments and by the testing service of the Office of Academic Services.

The proficiency examination program (including non-General Studies courses, as well as General Studies courses) is administered by the Office of Academic Services. Students who desire to take a proficiency examination in any course should initiate the procedure with the Office of Academic Services. In many cases course guides and reading lists are available from academic departments.

Students may take any available proficiency examination subject to the approval of the department and/or the following limitations: (1) a maximum of 48 hours, including credit earned through the College Entrance Examination Board's Advanced Placement Program, may be gained through proficiency examination; (2) a proficiency examination for a specific course may not be taken more than once, or for a course for which a grade has been earned.

After students have completed a proficiency examination, credits and grade points shall be granted according to the grade achieved on the test as follows: (1) if students receive a grade of A or B on a proficiency examination, the record shows the name of the course, hours of credit granted, the grade earned, and a notation "credit granted by proficiency examination"; the grade earned counts in the grade point average; (2) if students receive a grade of C on a proficiency examination, the record shows the name of the course, the hours of credit granted, "Pass" in the grade column with a notation "credit granted by proficiency examination"; the grade earned does not count in the student's grade point average; (3) if students receive a grade of D or E on a proficiency examination, no credit is received. The record shows nothing regarding the proficiency examination. However, the proficiency examination grade report forms are filed in the students' folders for reference.

Proficiency examinations are also available for some General Studies classes in which students are currently enrolled. The examinations are administered without charge to interested students of the class early in the quarter. The examinations are graded in sufficient time for those who pass the test to add another course. The names of the students who have passed the early examinations are carried on the class roll and they receive credit for the course at the end of the quarter. Students may elect to take these in-class proficiency examinations on a Pass/No Credit basis. Students who fail the in-class proficiency examinations continue in the course as regular students.

College Board Advanced Placement

High school students who wish to qualify to seek advanced placement may apply for advanced placement and college credit through the Advanced Placement Program of the College Board, 475 Riverside Drive, New York, New York 10027.

Advanced classes which qualify for this purpose are offered in many high schools in subjects such as English composition, foreign language, history, biology, chemistry, mathematics, and physics. A national examination administered through the Educational Testing Service is given in each subject. Each examination is intended to measure the achievement of the students and to determine at what point the students should begin college study of that subject. Each examination is prepared by a national committee of high school and college teachers. Grades are assigned as follows: 5, high honors; 4, honors; 3, creditable; 2, pass; and 1, fail. To receive credit, students must normally earn grades of 5, 4, or 3, except in chemistry where a score of 3 does not provide credit at SIUE.

Ordinarily, the maximum credit granted through Advanced Placement Examinations is 16 hours; this credit is not used in computing the grade point average. A maximum of 16 hours of credit granted at another accredited college or university under this plan is transferable to this University. Students may appeal to the appropriate academic dean if they wish to be granted more than 16 hours.

Those courses for which credit may be earned through advanced placement include:

Physics: 206a—5, 206b—5, 206c—5.
Chemistry: Chemistry 105—5; 125a—5; 125b—5; GSM 120—4.
Biology: Biology 200—4, GSM 130—4, 131—2, 230—4.
History: European: GSS 101—4, 102—4; American: GSS 200—4, 201—4, 202—4.
English: GSK 101—4, 102—4.
Foreign Languages: French: 101, 102, 103—12; 201, 202—8; German: 101, 102, 103—12; 201, 202—8; Spanish: 101, 102, 103—12, 201, 202—8.
Mathematics: 150a—4, 150b—4.
Music: GHA 230—4.

The results of advanced placement examinations should be sent to the Office of Admissions and Records.

College Level Examination Program

Southern Illinois University at Edwardsville will grant credit to both currently enrolled and prospective students for successful completion of the College Level Examination Program (CLEP) Tests under the following conditions:

1. A maximum of 48 hours can be earned through CLEP via General and/or Subject Examinations. This credit is applicable toward a baccalaureate degree.

2. The score on each General Examination must equal or exceed the 50th percentile on the national college sophomore norm which is a scaled score of approximately 500. Separate scores are reported for each of the tests comprising the General Examinations. Credit, therefore, will be allowed for the tests individually.

3. Credit will be awarded for a CLEP Subject Examination when approved by the department offering a comparable course.

4. Test credit will not be allowed when students previously have received credit in comparable courses. For example, credit via the English Test of the General Examinations will not be allowed when credit in English Composition has been established previously. In addition, test credit will not be granted

when students are currently enrolled in a comparable course.

5. Students will be permitted to take examinations for which comparable credit has not been established previously regardless of the total amount of credit earned to date.

6. Students may take the tests prior to enrollment at SIUE and still receive credit. Final recording of credit upon the Permanent Record Card, however, is contingent upon matriculation at SIUE.

7. The following amount of credit is offered for the corresponding General Examination:

English Composition with Essay — 4 hours
Humanities — 4 hours
Science — 8 hours
Mathematics — 4 hours
Social Science — 4 hours

8. When approved, credit will be awarded for Subject Examinations on the basis of the number of credit hours in the pertinent courses.

The tests are administered locally at the Office of Academic Services.

Individuals who take the tests and who wish to apply for credit through SIUE should have the results sent to Records Department, Office of Admissions and Records.

A maximum of 96 hours of credit earned through all types of proficiency examinations and the College Level Examination Program tests may be applicable toward a baccalaureate degree.

Military Experience Credit

Students who have completed military basic training may be eligible for 3 credit hours for physical education and 3 for health education. Students who have served six months or more of active duty may receive an additional 3 hours of credit for areospace studies. Applications for credit for military service as well as for academic credit for work done in service schools may be made through the Office of Admissions and Records. College or university credit earned prior to or during military service takes precedence over military experience credits; therefore, military experience credit is not applicable in all instances.

In evaluating credit possibilities based upon formal service-school training programs, the recommendations of the American Council on Education as set forth in the U.S. Government bulletin, *Guide to the Evaluation of Educational Experience in the Armed Forces,* are followed.

No credit is allowed for college-level GED tests.

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 carrry out a unit of study and to receive course credit for their work.

Five or more students who agree upon a subject for study during the quarter 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 the determination of grades.

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 request of the participants, will be available for aid and direction during the course of the term.

After the faculty adviser has approved the colloquium proposal, the adviser will forward the proposal to the Dean of University College. The adviser will secure the appropriate forms for the proposal from the Office of the Vice President and Provost. Course proposals must reach the Dean in final form not later than the last day of registration of the quarter for which the colloquium is to be credited. The Dean will determine whether the proposed colloquium is appropriate for credit and the number of credit hours the colloquium course will receive. The Dean also makes certain that, when compared to catalog descriptions, the proposed colloquium does not duplicate courses already available in the University curriculum.

In the final week of the quarter, the members of the colloquium summarize their accomplishments, evaluate their achievements, and submit a final report to the faculty adviser by the close of the final examination period of the quarter for which the colloquium is to 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 or not credit should be granted for the colloquium.

Students receive grades of "pass" or "no credit," as determined by the students participating in the colloquium.

Students may obtain up to 4 hours of colloquium credit in any one quarter, and may not exceed 8 hours during their undergraduate careers. Although colloquium credit normally applies only toward elective hours, in special cases appeal may be made by the students for General Studies credit or for credit toward a major or minor field of study. In case of such appeal the Déan of University College or the undergraduate adviser of the department involved, whichever is appropriate, will decide the issue. The outcome of the request is made known as early as possible.

STUDENT ACTIVITIES AND SERVICES

DEAN OF STUDENTS

The Dean of Students has administrative responsibility for various student support services. The Dean serves as a person to whom students may appeal for help with problems of any nature arising within the University environment. The Dean can be particularly helpful in the resolution of problems involving more than one office or agency of the University. Students should not hesitate to seek such assistance when any difficulty arises.

The Dean of Students is also concerned with student responsibilities as they relate to citizenship in the University community and serves as chief officer in the adjudication of matters involving violation of the Student Conduct Code.

STUDENT ACTIVITIES AND ORGANIZATIONS

Southern Illinois University at Edwardsville recognizes that strong academic programs must be balanced with cultural, social, and recreational opportunities. The University offers many services to students and encourages them to participate in campus government, student activities such as journalism and theater, social organizations, and sports. Because SIUE has a diverse student population, it offers many opportunities to meet and exchange points of view with people of different nationalities, ages, and cultural and socioeconomic backgrounds. The University provides both structured and casual programs that make campus life as busy or as casual as students wish.

Involvement in student activities and organizations provides experiences that augment the educational program. Currently there are approximately ninety recognized student organizations on the SIUE campus. Besides honorary organizations which stimulate and recognize academic achievement, groups appeal to the educational, religious, social, recreational, and political interests of students. All registered students may participate in the activities and organizations.

Throughout the year, students have many opportunities to participate in a variety of activities, including Welcome Week, Homecoming and Springfest. A quarterly film series provides popular, serious and educational films. Guest lecturers, art exhibits, travel programs, craft classes, and a host of recreational and leisure activities illustrate the diversity of events and opportunities.

The Student Development Leadership Training Program assists students in becoming prepared to be effective members of organizations. Approximately 100 positions exist on campus committees and governance councils for students regarding curricular matters, allocation of fees, parking and transportation, students' rights and grievances, minority affairs, affirmative action, and related areas affecting the welfare of students. Participation in campus publications provides yet another avenue for student involvement.

The Student Activities Office participates in Elderhostel, a one-week series of workshops in the summer during which senior citizens live on campus. It also co-sponsors an annual one-day Senior Fair that brings to campus governmental agencies, civic groups, and medical and dental personnel for services and workshops. The Fair features craft shows, entertainment, recreational programs, and dances. The Student Activities Office maintains a list of student volunteers who provide special services to senior citizens.

Students interested in particular activities and organizations should contact the Student Activities Office located in the University Center. The Office assists students in contacting organizations and activity chairpersons, in establishing new organizations, and in sponsoring special activities and workshops.

Recognized student organizations are listed below.

All University Organizations

Alestle
Cougar Guard (Campus Mascot)
Fraternity Sorority Conference
Student Government
Student Program Board
University Ambassadors
University Center Board

Fraternities

Alpha Phi Alpha
Delta Sigma Pi
Iota Phi Theta
Kappa Alpha Psi

Sigma Phi Epsilon
Sigma Pi
Tau Kappa Epsilon

Sororities

Alpha Kappa Alpha
Alpha Phi
Alpha Sigma Tau
Delta Sigma Theta
Gamma Sigma Sigma
Sigma Gamma Rho
Zeta Phi Beta

Frasorities

Epsilon Beta Gamma

Special Interest Groups

African Student Association
Arab Student Association
Black Student Association
Bowling Club
Chinese Student Association
College Republicans
Cycling Club
Graduate Urban Affairs and Policy Analysis Association
International Student Council
Iranian Student Association
Kaleidoscope Foundation
Malaysian Student Council
Moslem Student Association
National Town Meeting
Public Relations Student Society of America
Recreation Club
SIUE Gospel Choir
SIUE Cheerleaders
Student Planning Association
Tang-Soo-Du Moo-Duk-Kwan Karate Club
Wagner Potters Association
Women for Women
X-GI

Religious Organizations

Baptist Student Union
Christian Student Fellowship
Intervarsity Christian Fellowship
Lutheran Koinonia
Newman Student Union
Wesley Student Fellowship

Departmental Organizations

Accounting Club
Aerospace Club
American Production and Inventory Control Society
American Society for Personnel Administrators
Angel Flight
Association for Computer Machinery
Chemistry Club
Data Processing Management Association
Graduate Association of Students in Psychology
La Sociedad Hispanica
Lambda Alpha (Anthropology)
Marketing Association
Physics Club
Pi Mu Epsilon
Quonset Hut Theatre
Sculptors at Wagner
SIUE Institute of Electrical and Electronics Engineers
SIUE Philosophy Club
Student Chapter of Industrial Engineers
Student Nurse Association

Professional and Honorary Organizations

American Society of Civil Engineers
Arnold Air Society
Biology Honor Society
Business Students Coordinating Council
Civil Engineering Honor Society
Constructors (SIUE)
Delta Pi Epsilon
Eta Kappa Nu
Gamma Theta Upsilon (Honor Society)
National Art Education Association (N.A.E.A.)
National Association of Jazz Educators
National Student Speech and Language Association
Phi Beta Lambda (Business)
Phi Eta Sigma
Pi Kappa Delta
Pi Omega Pi
Psi Chi
Sigma Delta Chi (Journalism)
Student Council for Exceptional Children

The Student Volunteer Program is a non-salaried opportunity for students to gain experience related to several career fields. The Volunteer Program may also create an opportunity to explore employment opportunities. Experience in career fields such as geriatrics, special education, arts, crafts, music, family services, recreation, counseling, and child care is provided. For more information regarding the Student Volunteer Program, please contact the Student Activities Office at (618) 692-2686.

BURSAR

The Office of the Bursar, located on the first floor of the Rendleman Building, provides a variety of services to students and other members of the University community. Students may pay their tuition and fees, have identification cards prepared, pick up student work paychecks and financial aid disbursements, as well as apply for and receive SIUE parking decals at the Office of the Bursar. In addition, the office also cashes

checks and accepts payments related to on-campus housing and other outstanding debts owed to the University. Many transactions can be made by mail, reducing the necessity for special trips to campus. For further information about the services available, please call (618) 692-3122.

CAMPUS RECREATION

Each quarter students may participate in a variety of recreational activities. Through participation in organized, individual and team activities, students may stay fit, develop new skills and interests in leisure activities, and develop new friendships.

The recreational activities available on the campus include racquetball, swimming, weight lifting, and walking or jogging.

Scheduled activities include football, tennis, sailing, fencing, softball, bowling, and golfing. Competitive leagues and sports clubs provide the opportunity for vigorous physical activity.

Sponsored trips of various types include climbing, skiing, backpacking, and cycling. The trips are usually arranged on weekends or during breaks.

For information regarding campus recreation, please call the Office of Campus Recreation (618) 692-3984.

INTERCOLLEGIATE ATHLETICS

Intercollegiate athletics, as an adjunct to the educational program, is designed to provide challenging educational and competitive experiences for both the participants and spectators. The program comprises thirteen varsity sports—eight for men, consisting of baseball, basketball, cross country, golf, soccer, tennis, track and wrestling—and five for women, including basketball, soccer, softball, tennis and track.

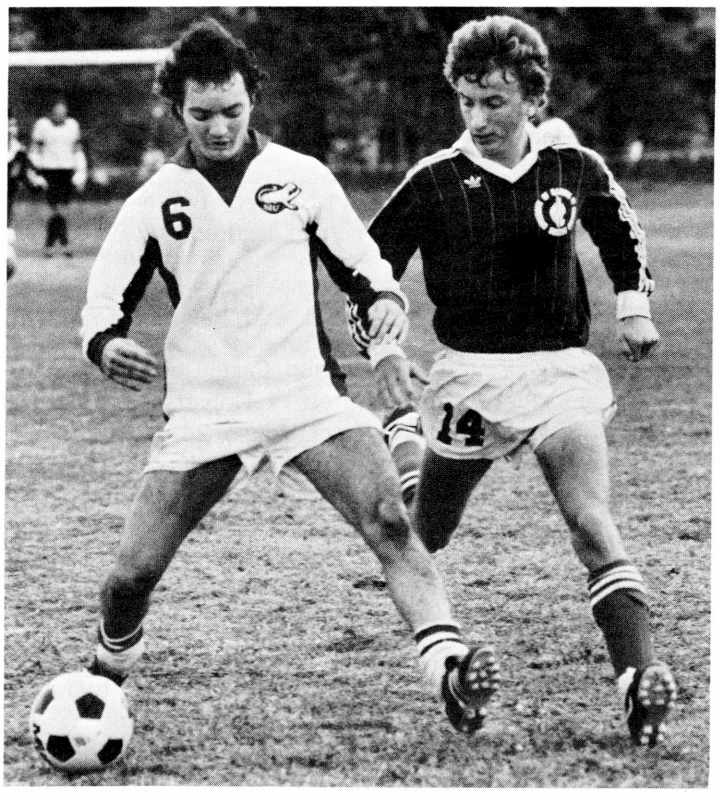
As a member of the National Collegiate Athletic Association (NCAA), SIUE is classified as a Division II program for legislative and competitive purposes. However, the men's soccer team competes in Division I.

A scholarship program is available to student athletes, which assists them in completing their college careers while participating in the intercollegiate athletic program.

Cougar athletic teams compete in a tradition of excellence. In 1972, the men's soccer team captured the National College Division Championship, and in 1979, the NCAA Division I crown. The men's tennis team has captured six consecutive Division II titles, an achievement unmatched by any other NCAA school. SIUE baseball and wrestling squads are perennial contenders for regional titles and both have reached the championship round on numerous occasions. The Golf team has qualified for NCAA championship play ten times over the last eleven years.

Still relatively new to the intercollegiate family, women's athletics has already made its mark. The tennis and softball teams are annual contenders for regional championships. The tennis team has repeatedly been ranked among the top ten nationally in Division II and in 1983 qualified for the national tournament. The softball squad has qualified for two national championship tournaments and finished second in 1982. Women's soccer is only one year old, but already the team is a regional contender. Several individual women have qualified for national competition in track, and two have received All-American honors.

Facilities for home contests include a 4,000-seat lighted field for the soccer teams, a 1,500-seat baseball complex with practice and varsity fields, a quarter-mile track, a cross country course ranked as one of the finest in the region, a 200-seat softball complex with practice and lighted varsity fields, and twelve tennis courts which serve as the home site for tennis matches. The golf team utilizes area courses for its home matches. In 1984 the intercollegiate athletic program will have its first home court advantage when teams begin play in the new Sam M. Vadalabene Center for Health, Recreation and Physical Education, which will seat approximately 5,500.



STUDENT GOVERNMENT

Student Government (located in the Student Activities area on the first floor of the University Center) offers students the opportunity to become involved in the decision-making processes of the University. The primary goal of Student Government is to serve the needs and rights of the students as well as to represent the interests of the student community to the administration. The services provided by Student Government include allocation of student funds, appointment of representatives to the various University and student committees, recognition of student organizations, and reviews of appropriate fees and benefits.

Student Government is comprised of three executive officers: the Student Body President, the Vice President, and the Student Trustee; a twelve member Student Senate; and the Student Government staff. Elections are held twice yearly; six Senators are elected each fall and spring. The executive officers are elected in the spring.

In order to represent the student body, Student Government is always in need of students who are willing to serve and to share their ideas. Interested students are invited to come to the Student Government Office.

HEALTH SERVICE

Health Service for Southern Illinois University at Edwardsville is staffed by a physician, nurse practioners, a pharmacist, nurses and a technician to provide emergency care, general outpatient care, laboratory diagnostic tests, and pharmaceutical needs. Health Service cooperates closely with the counseling staff of the Office of Academic Services. Additionally, the Health Service staff works closely with local and St. Louis metropolitan area health care agencies.

A medical history form must be completed by each person utilizing health service at the time of or prior to the initial visit. Physical examinations for special University requirements are provided in Health Service (i.e., food service, varsity athletics, and disability parking certification).

Confidentiality with respect to all personal medical problems represents a priority and can be assured.

CHILD CARE CENTERS

The University operates two Child Care Centers on the Edwardsville campus for children of University students. Located at Tower Lake and Tract House 24, both centers operate eight hours a day. The professional staffs of the centers provide a variety of developmental activities for children. Students may leave their dependent children at either of the centers for as long as a half-day for a nominal rate. The children accepted at the Tower Lake Center must be between the ages of two and six and must be enrolled for the quarter; all six-year-olds must be enrolled in kindergarten. Children enrolled in the Tract House Center must be between the ages of two and one-half and five and must be enrolled for the quarter.

University students interested in early childhood education may take a practicum in the approved center to meet part of the student teaching requirement. Students interested in a practicum should contact the Department of Curriculum and Instruction for more information.

STUDENT PROGRAM BOARD

The Student Program Board (SPB), the major student programming organization, provides a wide variety of activities and opportunities for the SIUE community. The Board selects, plans, promotes, executes, and evaluates the various programs. Its eight committees, advised by the University Center program staff, sponsor artists, speakers, films, video presentations and other special events. Membership on the various committees is open to all students.

STUDENT LEGAL SERVICES

Student Legal Services, through a resident attorney, assists students regarding legal matters. The office provides students with sources of legal advice and referral and serves as a focal point for the development of services which will allow students to gain a better understanding of legal processes and the law. The attorney has counseled students on landlord/tenant disputes, contracts, consumer rights, family matters, bankruptcy, small claim matters, traffic matters, and wills. Besides legal consultation, the office provides referrals to other attorneys and notary service. It maintains an extensive law library for legal research, and offers law school information, study guides for the Law School Admission Test, Illinois and national legal directories, and brochures on various topics of law.

The services are available to students at the East St. Louis and Alton campuses as well as to those at the Edwardsville campus. The attorney will make evening appointments for students on a pre-arranged basis. Since this office is funded through a student fee, access is available to any student who is currently enrolled at Southern Illinois University at Edwardsville.

HOUSING

The University's housing facilities, Tower Lake Apartments, provide housing for approximately 1,200 single students and 168 families. The units are furnished two- and three-bedroom co-op apartments designed for three or four single students. Such housing encourages individual responsibility, academic and personal growth and development, and community involvement through social and service projects and programs. Family students have the option of two- or three-bedroom apartments, furnished or unfurnished. Resident staff members are available to assist in problems residents may encounter. The Commons Building provides meeting rooms, a lounge area, social facilities, a snack bar, and administrative offices.

A Programs Committee, which any Tower Lake resident may join, arranges such activities as film screenings and float trips for residents. The Tower Lake Resident Association is elected each spring. This group advises the Director of Housing on housing operations.

Students should apply at least eight months in advance. Students living outside a specified radius of campus will be given priority for on-campus facilities. However, such priority does not guarantee on-campus housing.

Rates

Rates for family housing range from $315 to $365 per month. Current rates for single student housing range from $122 to $205 per month ($1,098 to $1,845 per academic year). All utilities except telephone are included in the rent. Application for University Housing requires a $50 deposit from single students, and a $100 deposit from families. Deposits are refundable after 30days and before a housing contract is signed. The application deposit becomes a damage deposit when a contract is signed. For additional information regarding University Housing, contact the Housing Office, Box 56, Southern Illinois University at Edwardsville, Edwardsville, Illinois 62026-1001. Inquiries may be made by calling the Housing Office at (618) 692-3931.

Off-Campus Housing

Off-campus housing services include listings of available off-campus facilities, informational booklets and brochures, telephone services, and model rental agreements to assist students, faculty, and staff in locating suitable accommodations. Owners of off-campus facilities may use the University's contract form for student rental housing. The University reserves the right to deny the privilege of listing off-campus accommodations with the Housing Office if landlords do not comply with the Civil Rights Act of 1968, other laws governing discrimination, and governmental health and safety standards. Experience has indicated that attempting to obtain off-campus facilities by mail is generally unsatisfactory. Prospective students are urged to visit the campus and personally seek desirable living accommodations.

UNIVERSITY CENTER

The University Center is a focal point for campus programs and services. The Goshen Lounge is frequently the forum for noon-hour debates, special events, exhibits and entertainers. Most students and staff pass the lounge on their way to other points in the building: cafeteria, restaurant, bookstore, art gallery, recreation center, television lounge, video lounge, bank center, ticket office, craft shop, meeting rooms or the Barber and Beauty Shop. Building facilities are as varied as the individuals being served. While groups meet in the second floor conference rooms, a band may play in the Goshen Lounge and pinball and video game wizards may compete in the basement game area. The University Center provides services, activities and space for the entire University community and for many off-campus groups. Space for group recreation and reduced rates for bowling, table tennis and other activities are provided for senior citizens.

In conjunction with the University Center Board, an advisory body of students, faculty, and staff, the management of the University Center establishes policies and procedures for the Center.

A wide variety of FOOD SERVICES is available in the University Center. The Cafeteria, located on the ground floor, offers hot breakfasts, luncheons, a large salad and dessert selection, and specialty items. The Sub-Meridian Dock provides fast food service adjacent to the Cafeteria; it offers hamburgers, french fries, shakes and other snack items. The University Club Restaurant, located on the second floor, offers complete table service in a relaxed atmosphere with a variety of menus at modest prices.

Bowling, billiards, table tennis, and many other activities including electronic games, air hockey, foosball, and pinball are available in the facilities of the RECREATION AREA of the University Center. Regular leagues and tournaments are also available.

UNIVERSITY CENTER CRAFT SHOP facilities and workshops are available to all students, faculty, staff and surrounding community groups. The Craft Shop offers six-week, noncredit workshops on such skills as photography, acrylic painting, macrame, and ceramics. It also conducts mini-workshops for such projects as candle making and cake decorating. In addition, the Shop offers its facilities for laminating, photocopying, making transparencies or brochures, and developing film. Supplies are available at modest cost.

UNION STATION, located on the first floor of the University Center, sells tickets for on-campus sponsored programs including films, lectures, athletic events, dance, music and theater performances. Tickets to many major St.Louis area events are also available.

A wide variety of other services including check cashing, campus and U.S. Mail pickup, maps, brochures, bus schedules, athletic game schedules and calendars of campus events are available. Ye Olde Sweet Shoppe, located at Union Station,

offers various sundry items, candies, cigarettes and area newspapers.

THE BANK CENTER, located across from Union Station on the first floor of the University Center, offers the remote banking services of both checking and savings withdrawals and deposits. The service is provided through the Bank of Edwardsville. For information, call 656-0057.

POST OFFICE

The SIUE Branch Post Office, located in the basement of Rendleman, is open daily from 7:30 a.m. to 4:30 p.m., Monday through Friday. Mail is dispatched at 7:30 a.m. and 4:00 p.m. daily. The services offered by the Post Office include domestic and international mail; parcel post; stamps; postal money orders and registered mail (accepted up to 3:45 p.m. daily); certified mail; insured mail; federal income tax forms and rental of postal lock boxes.

RELIGIOUS SERVICES

Six campus ministers representing eight different denominations present an ecumenical approach to campus ministry. Worship is celebrated in the Religious Center daily.

The Religious Center is open to all members of the University community regardless of religious affiliation for a variety of activities. Professional assistance is provided through personal, group, religious, marital, and premarital counseling. A religious library containing books on the subjects above is available.

OFFICE OF UNIVERSITY MUSEUMS

The Office of University Museums has stewardship of the University's many collections of art objects. These collections include pottery, prints, sculpture, paintings and drawings, as well as musical instruments and anthropological artifacts.

The distinguished Louis H. Sullivan Architectural Ornament collection is the most comprehensive collection of ornaments by one of America's most noted architects.

One of the more unusual and interesting of the collections is the Stroup Pottery Collection, consisting of examples of historic Korean pottery dating from the Silla Dynasties to the 20th Century. There is also a sizable collection of ancient and modern musical instruments from Western and Oriental cultures.

The collections of the University are on continuous display throughout the campus, both inside classroom and office buildings and in courtyards and patios. The Sullivan collection is housed primarily in Lovejoy Library and the basement corridor of Classroom Building III.

In cooperation with the Department of Art and Design and the Department of Anthropology, the Office of University Museums conducts internships for advanced undergraduate and graduate students interested in programs in museum administration, conservation, curatorship and restoration.

UNIVERSITY THEATER AND MUSICAL EVENTS

The University Theater offers all students the opportunity to work with SIUE's well-known theater and dance faculty in at least five Mainstage Productions during the academic year and three productions in the Summer Theater. Students not only perform onstage under faculty supervision; they may also design and construct sets, choreograph, or serve as assistant directors. The Student Experimental Theater is a student-operated enterprise open to all student applicants. An executive committee screens proposed plays, including new experimental works, and produces several each year. Students interested in dance train under excellent choreographers and appear in the Dance in Concert series and Mainstage Productions.

More than ninety concerts and recitals are given each year at SIUE. Each quarter the Department of Music sponsors band, orchestra, choral, and jazz concerts. There are weekly Faculty and Student Recitals; each music student presents at least one public recital during his or her career at SIUE. Faculty and students also hold quarterly Benefit Concerts for scholarships. Students who are not enrolled in music courses may join one of several ensembles open only to non-majors.

PARKING

SIUE's parking system is based on color-coded lots with corresponding decals. ALL VEHICLES MUST HAVE A CURRENT DECAL. Red decals are free and may be obtained at Vehicle Registration located in the Bursar's Office in the Rendleman building. Motorcycle decals are available on request.

All violations by a registered vehicle are the responsibility of the person in whose name the decal is issued. Tickets issued on a nonregistered 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 Vehicle Registration.

Night students have the option of purchasing night (green) decals which are issued on a quarterly basis for the fee of $5. These decals permit parking in the green lots only after 4 p.m.

PARKING FOR HANDICAPPED PERSONS

Specific spaces have been designated for parking for handicapped persons. These spaces are clearly marked with the international handicapped symbol. Any vehicle parked in these signed spaces must be identified with either handicapped license plates or other accepted handicapped decals. Any vehicle not bearing such identification is subject to a State citation and towing. This regulation is rigorously enforced. Information on obtaining handicapped decals is available from the Vehicle Registration Office.

STUDENT IDENTIFICATION CARDS

Students receive an identification card which bears their photograph and serves to identify them while they are enrolled at Southern Illinois University at Edwardsville. ID cards may be obtained in the Office of the Bursar in the Rendleman Building.

A Student Schedule form is issued each quarter at the time of registration. When officially validated by the Office of the Bursar, it enables students to have the I.D. cards validated. The identification card is used for the current quarter to identify students who have paid the student activity fee and are eligible to use University facilities.

The identification card and the Student Schedule form are legal documents. Students who loan, borrow, or alter these cards are subject to disciplinary action; in addition, such action may be considered a criminal offense, as well as an infraction of University regulations. It is important to obtain a new certificate of registration each quarter and to carry both the identification card and the current certificate of registration at all times. These cards are also used to borrow books from the University libraries and for other situations on the campus where positive student identification is required. In special cases, the identification card, the certificate of registration, and other corroborating evidence may be requested to verify identification.

ACADEMIC POLICIES AND REQUIREMENTS

CLASSIFICATION OF STUDENTS

Students are classified according to the number of credit hours they have earned.

Class	*Quarter Hours Earned*
Freshman	0-41
Sophomore	42-89
Junior	90-137
Senior	138 or more

One quarter hour of credit is equivalent to two-thirds of one semester hour; one semester hour equals one and one-half quarter hours. One quarter hour represents the work completed in a lecture course that students attend for fifty minutes each week; laboratory courses may require more than fifty minutes for one quarter hour.

CLASS ATTENDANCE

Upon registration, students accept the responsibility for attending classes and completing course work. It is the responsibility of students to ascertain the policy of instructors with regard to absence from class, and to make arrangements satisfactory to instructors with regard to missed course work. Students are advised that it is particularly important to attend beginning with the first class meeting. Failure of a student to attend the first session of a course could result in that place in class being taken by another student.

B.A. FOREIGN LANGUAGE REQUIREMENT

In addition to the University's general requirements for a bachelor's degree, persons working toward a Bachelor of Arts degree must demonstrate, either by examination or by college courses, proficiency in a foreign language equivalent to a year of college level work. Some academic units may require more than a year's work for their degrees.

CONSTITUTION REQUIREMENT

The State of Illinois requires that "American patriotism and the principles of representative government, as enunciated in the American Declaration of Independence, the Constitution of the United States of America and the Constitution of the State of Illinois, and proper use and display of the American flag, shall be taught in all public schools and other educational institutions supported or maintained in whole or in part by public funds." (Section 27-3 of The School Code of Illinois.) Students may demonstrate their knowledge in these areas by examination administered by the Office of Academic Services or by satisfactorily completing one of the following courses: Government 203, GSS 200, 201, 202, 220, or History 426. Students seeking teacher certification must complete one of the required courses.

ACADEMIC LOAD

The normal academic load for students is 16 hours. The maximum is 18 hours. Students with a 4.25 grade point average or above for the preceding quarter may be permitted to take as many as 21 hours with the adviser's approval.

Students on scholastic probation may not take more than 14 hours without approval of the adviser. Students employed full-time should not register for more than 8 hours.

Ordinarily, a student must carry 12 or more hours per quarter to be considered a full-time student. However, students attending the University under a scholarship, loan, or other type of program requiring full-time enrollment should check to make certain that they are meeting the requirements of their specific program.

With some exceptions, undergraduate students are expected to spend at least two hours in preparation for every hour in class.

COURSE NUMBERING SYSTEM

The first digit of a course number indicates the level of instruction.

000-099	Courses not properly falling within the other levels
100/200	Freshman, sophomore
300	Junior, senior
400	Students with 96 hours or more
500	Graduate courses. Not accepted for a bachelor's degree unless approved by the Graduate School and the department granting the degree.

GRADING SYSTEM

The following grading symbols are used by the University:

A—Excellent ..... 5 credit points
B—Good ..... 4 credit points
C—Satisfactory ..... 3 credit points
D—Poor ..... 2 credit points
E—Failure, or unauthorized withdrawal ... 1 credit point
W—Withdrawal. Authorized withdrawal. Work may not normally be completed.
WP—Withdrew Passing.
WE—Withdrew Failing. WE is calculated as E in grade average.
INC—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. (NOTE: See the details of the policy on "INCOMPLETE" grades, following.)
DEF—Deferred. Used only for graduate courses of an individual continuing nature such as thesis or research.
S—Satisfactory. Used for noncredit courses and thesis.
U—Unsatisfactory. Used for noncredit courses and thesis.
AU—Audit. No grade or credit hours earned.
PASS—Used for courses taken under Pass/No Credit option and Pass/No Entry grade. Hours may count toward graduation.
NO CREDIT—Used for courses taken under Pass/No Credit option. No credit hours earned.
NO ENTRY—Used for courses taken under Pass/No Entry grade. No credit hours earned.
CREDIT—Used for graduate students only for courses taken under Credit/No Entry option. Hours earned, but may not be applied.
PR—Progress. Restricted to courses in the skills area of General Studies. No credit hours earned.

All complete grades for courses taken at this University are included in determining students' grade point averages for academic progress purposes.

INCOMPLETE AND DEFERRED GRADES

Unless instructors have specified a shorter period of time, incomplete grades not completed within one year will automatically be changed to E (graduation notwithstanding). Instructors who specify a shorter period of time must communicate that stipulation in writing—with copies to the Admissions and Records Office and the department chairperson—to students at the time the incomplete is granted. Any students who feel that mitigating circumstances should allow an extension of the time limit beyond one year for completion of an incomplete grade may petition the faculty member who granted the grade. Faculty members who agree to grant extensions shall inform the student, the department chairperson, and the Office of Admissions and Records. Students and their advisers will be notified of outstanding incompletes and of the due dates on which the incompletes will be changed to an E.

A DEF grade for course work of an individual nature such as research, thesis, or dissertation is changed to a completed grade when the project has been completed.

PASS/NO CREDIT

Under this option students receive a Pass for grades A, B, C and a No Credit for grades D or E. At the time of declaring Pass/No Credit, students may stipulate that they would rather receive the grade of D than No Credit when appropriate.

Taking courses on a Pass/No Credit basis is limited to courses outside General Studies requirements and major and minor requirements. Students may enroll in no more than 12 hours of undergraduate coursework under the Pass/No Credit option. These limitations do not apply to courses which are offered only for Pass/No Credit.

Decisions to take a course on a Pass/No Credit basis must be declared no later than the sixth week of the quarter and must be approved by the adviser. Thereafter no change may be made.

Students should be aware that some graduate schools and employers consider Pass as equivalent to a C grade.

PASS/NO ENTRY

Certain courses offer only Pass/No Entry grades. A grade of Pass provides that the hours of credit may count toward

graduation; a grade of No Entry carries no grade and no credit hours. Pass/No Entry courses will not satisfy either major or minor requirements.

AUDIT COURSES

Students may register for courses in an "audit" status. No letter grade and no credit is given for such courses. Students pay the same fees as though registering for credit. If auditing students do not attend regularly, instructors may determine that the students should not have the audited course placed on their record cards maintained in the Office of Admissions and Records. Students registering for a course for credit may change to an audit status or vice versa during the first four weeks of a quarter; thereafter the change may not be made. Veterans attending under the GI Bill do not receive benefits for audited classes. ISSC Monetary Award and Pell (Basic) Grant recipients may not include audit classes as part of the total to qualify for payment. Students may register for audit credit only through the program change procedure.

REPEATED COURSES

Students may repeat a course taken at SIUE, or enroll in a course at SIUE identical to one taken earlier at another school. Both grades appear on the transcript, but only the most recent one is used to compute the GPA. Only the most recent course hours will count toward graduation. Students who repeat SIUE courses at other schools and subsequently have that credit transferred back to SIUE will have both grades counted in their GPA.

PROBATION

1. When students' cumulative grade point averages fall below 3.00, they are placed on Scholastic Warning. They will be returned to Good Standing at such time as their cumulative average is raised to 3.00 or higher.

2. If, while on Scholastic Warning, students' term averages are below 3.00, they will be placed on Scholastic Probation and will be subject to the restrictions imposed on probationary students.

3. Students on Scholastic Probation will not improve their status until:

   a. They complete three successive quarters with a C average or above, at which time they will be returned to Scholastic Warning; or

   b. They raise their cumulative average to the 3.00 level, at which time they will be returned to Good Standing.

4. In the event students on Scholastic Probation fail to attain a 3.00 average for their next quarter of attendance, they will be placed on Scholastic Suspension.

5. Students placed on Scholastic Suspension may appeal to the appropriate dean or director for possible reinstatement.

APPLICATION FOR GRADUATION

Candidates for a baccalaureate degree should file an Application for Graduation with the Office of Admissions and Records at the beginning of their senior year. Applications are mailed routinely to students when they reach this level (140 quarter hours). Application forms are also available in the Office of Admissions and Records.

Once the completed applications are received by the Office of Admissions and Records, graduation evaluations are performed. The Office of Admissions and Records determines completion of General Studies and University degree requirements, while the major and minor requisites are established and reviewed by the academic departments through which the degree is being sought.

In addition to completing the steps for graduation, students must meet all University requirements and meet all outstanding financial obligations.

In no case will an application be processed after the announced final deadline, which will be three months prior to graduation. All deficiencies for graduation (incompletes, etc.) must be made up within two weeks following graduation; otherwise, the students will be graduated at the end of the next quarter.

Students are graduated at the end of the quarter when they complete their requirements, and that fact is indicated on their academic record.

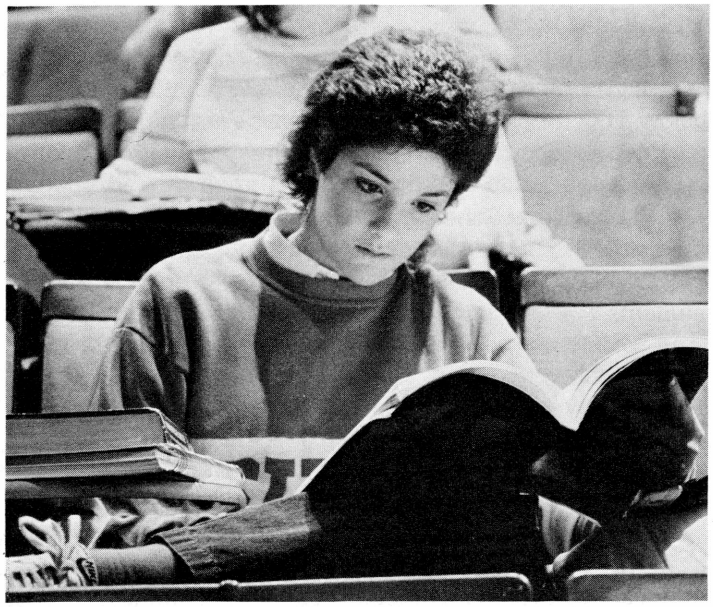
Commencement ceremonies are held each year in June at the end of the spring quarter. Attendance at the exercises is elective.

A fee of $10.00, established for all persons receiving degrees, is payable at the time of application. The fee does not cover the rental fee for the cap and gown. These items are ordered through the University Bookstore in the University Center. Questions regarding the cap and gown, as well as invitations, should be referred to the University Bookstore.

GRADUATION APPEALS COMMITTEE

The University has a Graduation Appeals Committee whose function is to hear students' petitions to be permitted 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 administrative official. 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 due to conditions beyond the control of the students. Appeals are initiated through the Office of Admissions and Records.

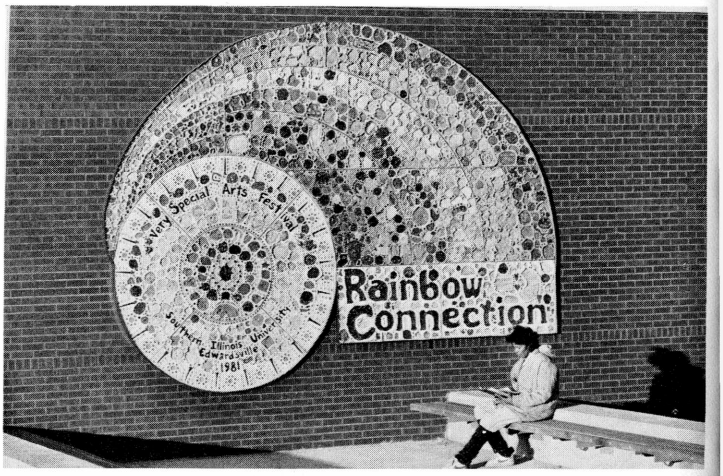


GRADUATION

Bachelor's degree candidates are expected to fulfill the requirements of their academic unit and to maintain a minimum grade point average of 3.00 for work completed at Southern Illinois University at Edwardsville, as well as 3.00 overall grade point average.

Candidates for the degree must also complete a minimum of 192 hours of credit in approved courses. Students transferring from an accredited two-year institution must earn at Southern Illinois University at Edwardsville, or at any other approved four-year institution, at least 96 of the quarter hours required for the degree. Candidates for the degree must complete a minimum of 48 quarter hours in residence at Southern Illinois University at Edwardsville and meet all degree program requirements. Any exceptions must be applied for by the students and submitted to the Graduation Appeals Committee.

Students seeking a second baccalaureate degree must complete a minimum of 48 hours subsequent to completion of the first degree and must satisfy the requirements of their primary concentration. At least 32 of these hours must be in residence.



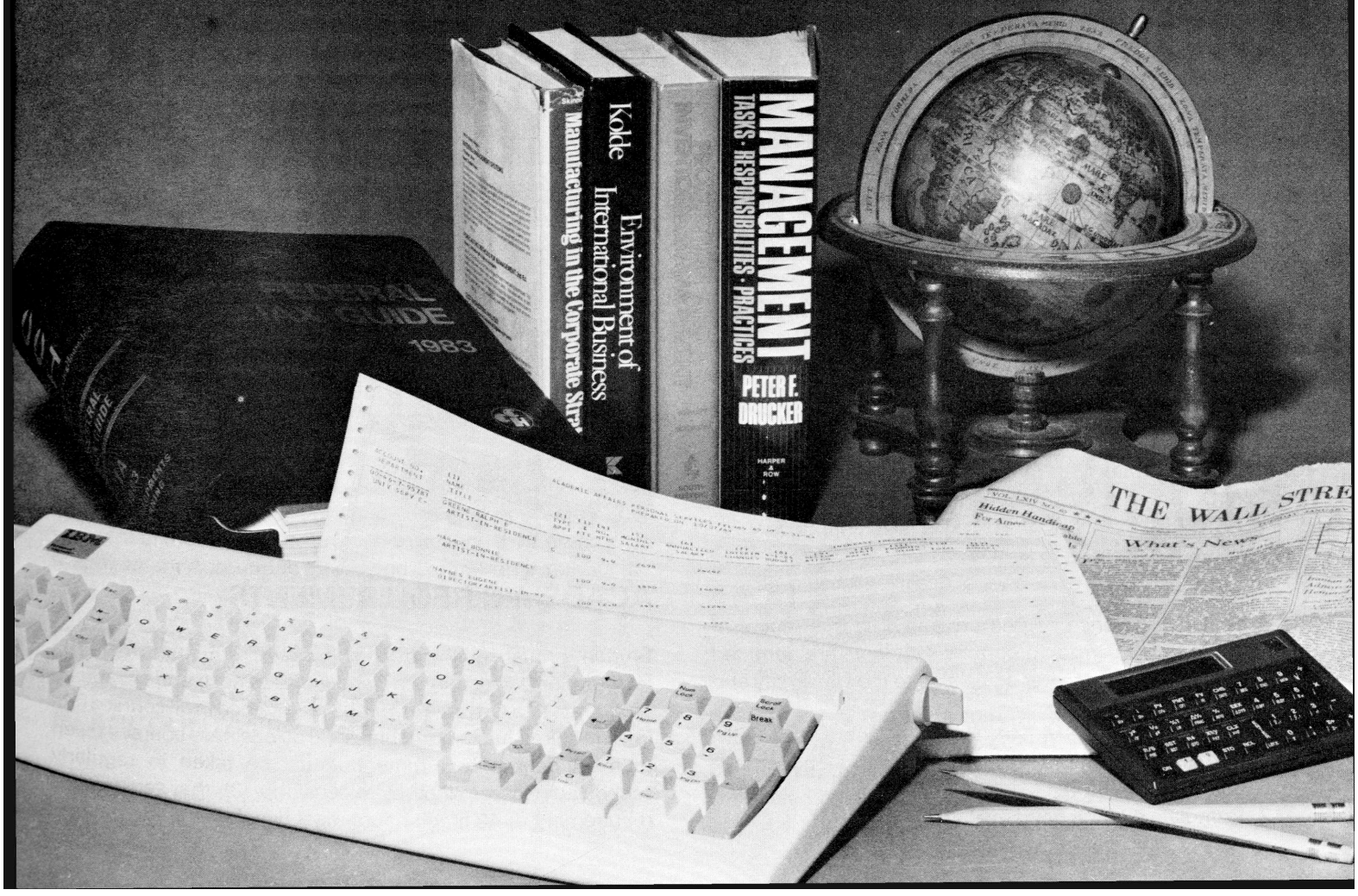
TRANSCRIPTS

Students are entitled to transcripts of their University academic record provided they have fulfilled all their financial obligations to the University.

Requests must be made in writing or in person. Telephone requests for transcripts cannot be honored.

SCHOOL OF BUSINESS

D. J. WERNER, DEAN



The School of Business offers undergraduate programs to: (1) develop the knowledge of theory and techniques of management with emphasis on analytical processes and decision making to prepare students for professional careers in business; (2) provide a stimulus to lifelong study and learning and a foundation upon which a student can build higher degrees; (3) prepare teachers of business subjects in secondary schools, community colleges, vocational-technical schools, and similar institutions.

Four degree programs are offered at the undergraduate level to achieve the above objectives. The four programs are the Bachelor of Science in Accountancy, Bachelor of Science in Business Administration, the Bachelor of Science in Business Economics, and the Bachelor of Science with a major in Business Education which is offered in cooperation with the School of Education.

The School of Business is accredited by the American Assembly of Collegiate Schools of Business.

FACULTY

Professors:
Aucamp, D. C., Ault, D. E., Blackledge, W. L., Fogarty, D. W., Hoeke, R. S., Hollenhorst, J. J., Hoover, A. E., Jain, S. K., Kaikati, J. G., King, T. E., Kohn, R. E., LaGarce, R. F., Lin, A. Y., Lindsay, V. J. (Dean, Graduate School), Luan, D. C., Miller, B. B., Prell, A. E., Pyke, W. O., Rutman, G. L., Schultheis, R. A., Schwier, A. S., Steffen, H. H., Sultan, P. E., Wait, W. B., Werner, D. J. (Dean, School of Business)

Associate Professors:
Barringer, R. L., Benjamin, J. E., Bernardi, R. D., Blount, D. F., Campbell, W. L. Eckardt, W. L., Elliott, D. S., Franke, A. G., Harrick, E. J., Hashimi, R. M., Hirsch, M. L. Krone, L. H., Levin, S. L., McKinney, R. N., Meisel, J. B., Nyerges, R. T., Patsloff, P. K. Schrage, J. F., Segal, M., Sharp, J. A., Virgo, J. M., Whitmore, W. J., Wilson, G. T.

Assistant Professors:
Bosse, D. B., Carver, M. R., Edmonds, R. G., Evans, R. C., Hansel, W. M. Michlitsch, J. F., Miller, J. F., Ortegren, A. K., Puro, M. B., Schmitt, N. V. So, Y. C., Statler, L. D., Sumner, M. R., Tarpey, P. R.

Instructors:
Edwards, R. A., Erthal, M., Frankel, S., Kulfinski, K., Myer, F. L. Parrill, W. D., Small, E. W., Sturdivant, C. A., Ulmer, D. K.

ADMISSION

The Bachelor of Science degree programs in the School of Business are upper division programs. Students are admitted as pre-business students after admission to the University and after attaining the following:

1. Completion of GSM 144, College Algebra, and GSM 244, Statistics (or their equivalents), with a C or better in both courses.
2. Cumulative grade point average of 3.00.
3. Completion of GSK requirements.

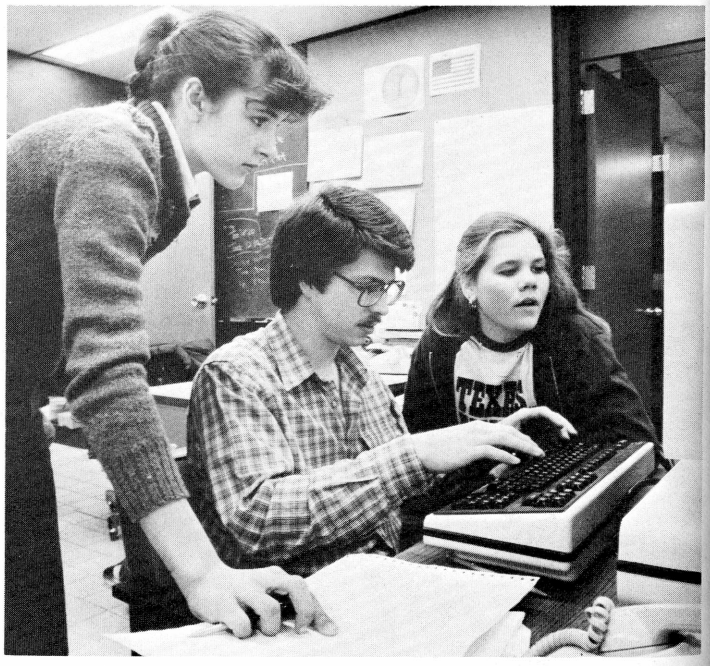
In order to be fully admitted to the business program, a student must complete the following with a grade of C or better:

1. Accounting I & II ACCT 201 and 202
2. Micro and Macro Economics ECON 201 and 202
3. Introduction to Data Processing MIS 200
4. Business Statistics MS 251
5. Business Communication MGMT 290

After satisfactorily completing the above courses, a Business Admission Request Form must be submitted for review by the Undergraduate Admission Committee. Students may request an exception to the admission requirements by writing to the School of Business Undergraduate Scholastic Review Committee.

Students who have earned an associate degree in arts or sciences are admitted only when they have completed speech (GSK 123) and logic (GSK 152/162) requirements. Other transfer students must fulfill the same requirements as students who register as freshmen at Southern Illinois University at Edwardsville.

The School of Business limits the transfer of business courses taken at the lower level at another institution to lower division credit (100 and 200 level courses). Prospective transfer students should contact the School of Business Advisement Office concerning the transferability of previous course work.



ACADEMIC REQUIREMENTS

Students must fulfill the following requirements to obtain a Bachelor of Science in the School of Business undergraduate programs: (1) a C average must be maintained in all courses and in all required business courses; (2) all business courses taken to meet degree requirements must be taken in regularly scheduled classes (not by extension); (3) the senior year requirement of 48 credit hours must be taken in residence.

ADVISEMENT AND COUNSELING

The School of Business has an Advisement and Counseling Office to assist students in scheduling their courses to meet program requirements. This office also provides guidance to students with academic problems.

ACCOUNTANCY

The degree program in Accountancy is intended as a preparation for entry into a professional career in Accounting in either the private or public sector. The program is designed to provide students with an educational foundation upon which they can build future professional growth in the practice and study of Accounting as they pursue their chosen careers. Students seeking admission to the program must have a 3.5 grade point average in all Accounting courses taken, which must include a minimum of Accounting 201 and 202 or equivalents, and must have a cumulative grade point average of at least 3.5. Once admitted, candidates who fail to maintain these standards throughout the program may be dropped from the program. Upon admission to the program, students should contact the School of Business Academic Advisement Office for consultation with an undergraduate adviser to plan a specific program of study. Students will be assigned an adviser from the Accounting faculty.

CAREER OPPORTUNITIES IN PROFESSIONAL ACCOUNTING

There are several career paths possible for the student of professional accounting. The possibilities include employment with public accounting firms, private industry, and governmental institutions. Public accounting offers the opportunity to gain exposure to a wide variety of clients and their accounting methods. Professional certification as a Certified Public Accountant is achieved by passing all four parts of the Uniform CPA Examination: theory, practice, auditing, and business law. The examination is administered by the American Institute of Certified Public Accountants (AICPA) in May and November of each year. There are three different avenues that may be pursued within public accounting: auditing, tax, or management advisory services. SIUE accounting graduates are recruited by national, regional, and local public accounting firms. SIUE accounting graduates are employed in private industry and government agencies as managerial accountants and internal auditors. Appropriate professional designations within this segment of the accounting profession include the Certificate in Management Accounting (CMA) and Certified Internal Auditor (CIA).

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE DEGREE IN ACCOUNTANCY

General Studies Requirements (this area must include a course in college algebra and a course in statistics 60

General Business Requirements 60
- Accounting 201, 202
- Finance 320
- Economics 201, 202, 343
- Management 290 (or approved substitute), 340, 440, 441
- Marketing 371
- Management Information Systems 200
- Management Science 251, 320
- Production 315

Accounting Degree Requirements
- Accounting 301, 302, 303, 311, 312, 315, 321, 342, 401, 431 40
- Specified Business Electives 12
  1. At least 4 hours must be elected from the following courses:
     Accounting 322, 390, 403, 411, 433, 490
  2. No more than 8 hours may be elected from:
     Economics 401, 415, 417
     Management Information Systems 480, 483, 484, 486
     Management Science 321

Communication Electives 8

Other Non-business Electives 8

Free Elective (business or non-business; must be outside of Accounting)[1] 4

Total 192

[1]May not include Management 242 or Management Information Systems 381.

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE DEGREE IN ACCOUNTANCY, EMPHASIS IN MANAGEMENT INFORMATION SYSTEMS

General Studies Requirements (this area must include a course in College Algebra and a course in Statistics 60

General Business Requirements 60
- Accounting 201, 202
- Finance 320
- Economics 201, 202, 343
- Management 290 (or approved substitute), 340, 440, 441
- Marketing 371
- Management Information Systems 200
- Management Science 251, 320
- Production 315

Accounting Degree Requirements
- Accounting 301, 302, 303, 311, 312, 315, 321, 342, 401, 431 40
- Specified Business Electives 20
  1. 4 hours from the following: Accounting 411, 412, 451, 296
  2. Management Information Systems 281, 480, and 484
  3. One of the following: Management Information Systems 201A, 483, or 486

Communication Electives 8

Other Non-business Electives 4

Total 192

Communication Electives[2]

English 201, 325, 410, 490, 492a
Journalism 355
Philosophy 230 or 307 (not both)
Speech Communication 200, 302, 303, 313, 330, 403
French 301, 302, 303, 307
German 301, 302, 303, 307
Spanish 301, 302, 303, 307

[2]Each course may be taken only once for credit and may not be used to satisfy the general studies requirement or substitute for Management 290. Substitutes for Management 290 are any one of the following: English 325, 410, 490

BUSINESS ADMINISTRATION

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE DEGREE IN BUSINESS ADMINISTRATION

General Studies Requirements	60[1]
Program Core Requirements	76
Specialization Requirements (in any one of 12 possible specializations)	16-28
Business Electives	4
Non-Business Electives	12
Electives	24-12
Total	192

[1]This area should include a course in college algebra and a course in statistics.

PROGRAM CORE REQUIREMENTS

All BS/BA students take the Core listed below.

School of Business Core Requirements:

Accounting 201, 202, and either 210 or 311[1]
Economics 201, 202, 343
Finance 320
Management 290, 340, 341, 440, 441
Management Information Systems 200, 381
Management Science 251 and either 312, 314, or 320
Marketing 370, 371
Production 315

[1]Those students specializing in accounting should take 311.

The purpose of the core curriculum is to provide students with a basic understanding of the major functions and processes of business and administration. The core curriculum encompassing the common body of knowledge in business as defined by the American Assembly of Collegiate Schools of Business (AACSB), includes the following areas: (a) the concepts, processes, and institutions in marketing, distribution, and production, and financing functions of business enterprise; (b) the economic, legal, social, and political environment of business; (c) the concepts and methods of accounting, quantitative methods, and information systems; (d) the concepts of organization theory, interpersonal relationships, control and motivation systems; and (e) interrelationships involved in analysis and policy determination.

AREAS OF SPECIALIZATION AND CAREER OPPORTUNITIES

Each BS/BA student must complete one of the following specializations. Students are encouraged to discuss their career objectives and the various specializations with the academic advisers and faculty in the School of Business before making a choice.

GENERAL ACCOUNTING

The accounting specialization within the BS/BA degree is designed for individuals who need additional accounting training beyond the general School of Business requirements but not to the extent required for a professional accounting degree. This program does not qualify the student to take the uniform CPA examination.

Course requirements: Accounting 301, 302, 303, 312, 401.

ADMINISTRATIVE SERVICES

The specialization in administrative services is designed to prepare students for positions in office automation and management systems administration. The specialization includes the study of data processing systems, computer programming, information storage and retrieval systems, office systems and procedures, and word processing systems.

Students who complete the administrative services specialization will have career opportunities in office automation, office administration, office product marketing, systems analysis, and corporate services administration. The administrative services program, along with related work experience, may permit students to earn professional recognition as a Certified Administrative Manager.

Course requirements: Administrative Services 426, 427, 428
Management Information Systems 201a.

BUSINESS DATA PROCESSING

The business data processing (BDP) specialization is designed to prepare graduates for entry-level positions as programmer/analysts in data processing centers or in functional areas in service, governmental, and business organizations. The specialization includes the study of languages, equipment, software, and systems for information as well as the specific application of management techniques and analysis tools to information

systems.

The professional career examination in this field is the Certificate in Data Processing (CDP) which is sponsored by the Institute for Certification of Computer Professionals (ICCP). The business data processing specialization is designed for students preparing to take this examination.

Course requirements: Management Information Systems 201a, 301, and 480, and 4 hours of 400-level MIS electives.

ECONOMICS

The specialization in economics provides students with knowledge of the analytical methods for solving the basic problems affecting profit and growth of the business organization. In addition, Economics offers courses in national income determination and the functioning of the economic system 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.

Course requirements: Economics 401, 402, and two electives in Economics.

FINANCE

The finance specialization prepares students for decision-making positions in private industry and government service. Courses in finance are designed to develop analytical ability and fuller comprehension of the nature of financial problems as encountered in business and industry.

Course requirements: Finance 420, and any three 400-level Finance electives.

GENERAL BUSINESS ADMINISTRATION

The specialization in general business administration provides students with an opportunity to obtain further depth of study in related subjects offered by the other Schools. Among the areas to which this option is applicable are government, mathematics, psychology, and sociology. Other areas may be approved upon application to the Director of the BS/BA Program. In each instance students pursue a sequence of courses totaling at least 16 quarter hours in the area of their choice. The particular sequence must be approved in advance.

Course requirements: To be planned on an individual basis; requires prior approval of the program director.

MANAGEMENT

The management specialization is designed to develop the background and skills essential to the effective administration of formal organizations. The course work leading to this specialization emphasizes the roles of planning, organization, staffing, supervision, control, and innovation in the development of management systems. In addition to study of management processes, the management specialization stresses the use of groups in the identification and resolution of organization problems such as conflict, design of effective systems, and coping with changes in the internal and external environment.

Course requirements: Management 430, 431, 432, Management elective.

MANAGEMENT INFORMATION SYSTEMS

The management information systems (MIS) specialization is designed to prepare personnel for programming and/or design of business-related information systems in either the private or public sectors. The specialization includes the preparation of abilities to:

a. Create computer programs to solve organization problems.
b. Formulate basic organization functions and conceptualize problems using analysis and design techniques.
c. Assimilate how information delivery systems support functional management activities.
d. Recognize needed hardware, software, and personnel, including terminology and functions for service to the organization.
e. Utilize the team approach to computer program and project development.
f. Communicate effectively, both orally and in writing.

Most professional career examinations in the computer field are administered by the Institute for Certification of Computer Professionals (ICCP), which currently presents the certification in data processing (CDP) and computer programming (CCP). The MIS program is responsive to the requirements of the professional career examinations of the ICCP, plus proposed certifications in EDP Auditing Systems Analysis.

Students completing the MIS area are well prepared for initial positions as business computer programmers and/or as systems analysts for business, government and service organizations.

Course requirements: Management Systems 201a, 281, 301, 480, 481, and 8 hours from 400-level MIS electives, Accounting 315 or Administrative Services 430.

MANPOWER AND INDUSTRIAL RELATIONS

The specialization in manpower and industrial relations provides an opportunity for students to enter private industry, government, or service-oriented industries. This specialization prepares students for the field of industrial relations, which includes labor relations economics.

Students study manpower planning, collective bargaining, industrial relations law, and government policy. Also included

are contemporary issues, such as discrimination, safety, and equal employment.

Graduates are prepared for entry-level positions in industrial relations, employment analysis, or training. They frequently enter graduate programs in industrial relations, business, economics, law and psychology.

Course requirements: Economics 331, 431, 432, and one from Economics 401, Management 434, Management 437.

MARKETING

The marketing curriculum is designed to enable students to analyze the problems inherent in 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 helps prepare students for a career in commercial, governmental, and service organizations that serve the public in ways other than producing tangible goods.

Course requirements: Marketing 377, 480, and three from 470, 471, 472, 474, 475, 476, 478.

PERSONNEL ADMINISTRATION

The B.S. in Business Administration with a specialization in Personnel Administration is designed to train students for positions in personnel. The specilization addresses the major functional areas of the field such as:

Recruitment	Performance Appraisal
Training	Health and Safety
Compensation	Personnel Planning
Selection	Labor Relations

The specialization permits students to enter private industry, government, or service-oriented industries.

Course requirements: Management 430, 435, 436; one of Management 434, 437, Economics 331, 432; and a Psychology elective.

PRODUCTION AND OPERATIONS MANAGEMENT

The planning and control of operations, inventory, purchasing, and quality are concerns of all organizations including those involved in transportation and services, as well as those in manufacturing. Emphasis is on the analysis and design of management systems utilizing quantitative techniques in the design and measurement of work, inventory control, manpower planning, scheduling work activities, space utilization, and quality control. The relationships of these areas and the necessity of integrating the corresponding subsystems are stressed and studied.

Professional career examinations are offered by the American Production and Inventory Control Society (APICS), the National Association of Purchasing Management (NAPM), and the American Society of Quality Control (ASQC). The production and operations management program is designed for students preparing to take these examinations.

Students with a specialization in production and operations management are prepared for entry-level positions with career growth capability in the organization functions of inventory control, purchasing, production control, and quality control. Graduates are equipped to serve as assistants to plant managers, hospital administrators, transportation managers, or any managers whose duties involve scheduling, quality control, cost control, or inventory management.

Course requirements: Production 410, 461, 462, 463, 468.

MINOR FOR NON-BUSINESS MAJORS

A minor in business consists of 28 hours which must include courses from at least three of the following areas: accounting, administrative services, business education, economics, finance, manpower and industrial relations, management information systems, management science, marketing, management personnel administration, and production. A minimum of 12 hours must be taken in residence.

Students must contact the Advisement Office of the School of Business for assistance for planning and approval of a minor.

BUSINESS EDUCATION

The business education curriculum is designed to prepare teachers of business subjects for secondary schools, community colleges, vocational-technical schools, and similar institutions. Students in the program complete a core of business administration and education courses and specialize in one area of business administration. Students interested in business teacher education should promptly contact the business education adviser and enroll in Secondary Education 215.

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE DEGREE, SCHOOL OF EDUCATION

General Studies Requirements 60
(This area should include one mathematics and one statistics course, a government course, and a psychology course.)
Health and Physical Education
(required for teacher certification) 6
Business Teacher Education Core 64
Accounting 201, 202
Administrative Services 426
Business Education 327, 350, 402
Economics 201, 202
Finance 320

Management 290, 340, 342, 441
Management Information Systems 200
Management Science 251
Marketing 371
Subject Matter Specializations (choose one) 12
ACCOUNTING-DATA PROCESSING
Accounting 210 (or other accounting elective)
Business Education 408[1]
Management Information Systems 201a
SECRETARIAL ADMINISTRATION
Administrative Services 427
Business Education 324a, 404
MARKETING AND DISTRIBUTIVE EDUCATION
Marketing 472 or 474
Business Education 414, 416
ECONOMICS
Management 440
Economics 401 or 402, 425
Free Electives 13
Professional Development Sequence
(Choose either B or A) 37-41
A. Secondary Education 215, 401a,b,c, Business Education/Secondary Education 405 41
B. Secondary Education 215, 315
Education 305
Foundations of Education 355
Secondary Education 352c (12-16 hours)
Business Education/Secondary Education 405
Elective (0-4 hours)2 37

Total 192-196

[1]May be substituted in exceptional cases by the Business Education Adviser.
[2]Secondary Education 351 is recommended for those interested in additional teaching methodology.

BUSINESS ECONOMICS

This degree is recommended for those students who are interested in the study of economics and plan either to seek employment in business or government upon graduation or to do graduate work in one of the business disciplines. Students who are interested in graduate work in economics or who intend to seek admission through a professional school, such as law, are advised to enroll in the economics degree program offered through the School of Social Sciences. (See Social Sciences section of this catalog.) Students seeking admission to the program must have met the general admission criteria of the School of Business. Students should contact the Department of Economics for consultation with an undergraduate adviser to plan a specific program of study.

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE DEGREE IN BUSINESS ECONOMICS

General Studies Requirements 60
Requirements for Major in Economics 88
GSM 144, 244 ..... (9)
Accounting 230, 233 8
Economics 201, 202, 321, 343, 401, 402, 417 28
(prerequisite to 417 is MS311 or equivalent)
Economics Electives 20
Finance 320 4
Management 340, 390, 440, 441 16
Management Information Systems 200 4
Marketing 371 4
Production 315 4
Electives (32 hours of which cannot be in business or economics) 44

Total 192

MINOR IN ECONOMICS

The minor in economics or business economics consists of 28 hours and must include 201, 202, 401, 402. The remaining 12 hours shall consist of electives in economics chosen in consultation with an adviser from the Department of Economics.

BACHELOR OF SCIENCE AND BACHELOR OF ARTS DEGREE, SCHOOL OF SOCIAL SCIENCES

Please refer to the School of Social Sciences section of this catalog for a discussion of the Bachelor of Science and Bachelor of Arts Degree requirements and career opportunities for graduates.

OTHER PROGRAMS

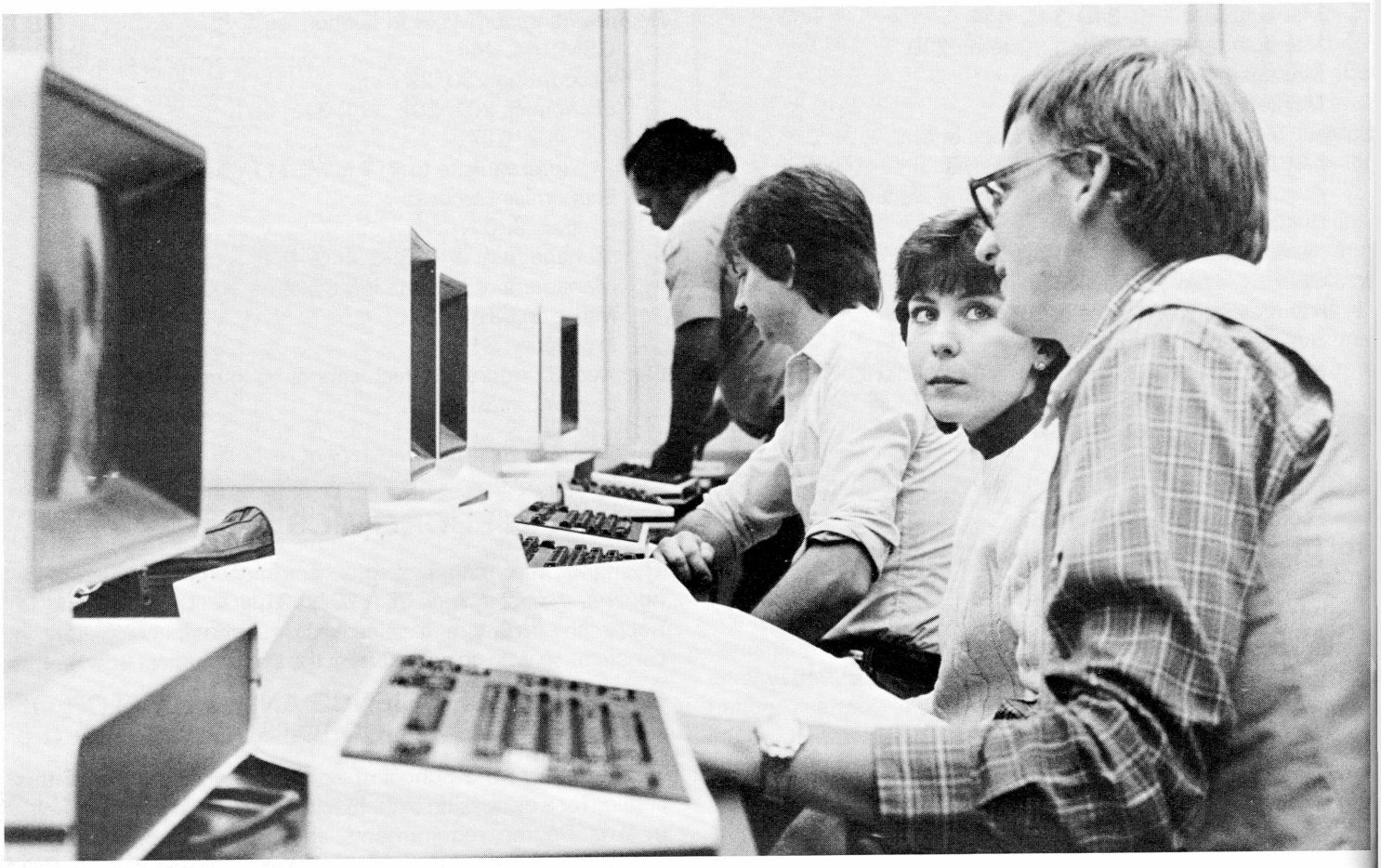
PROFESSIONAL EXPERIENCE PROGRAM

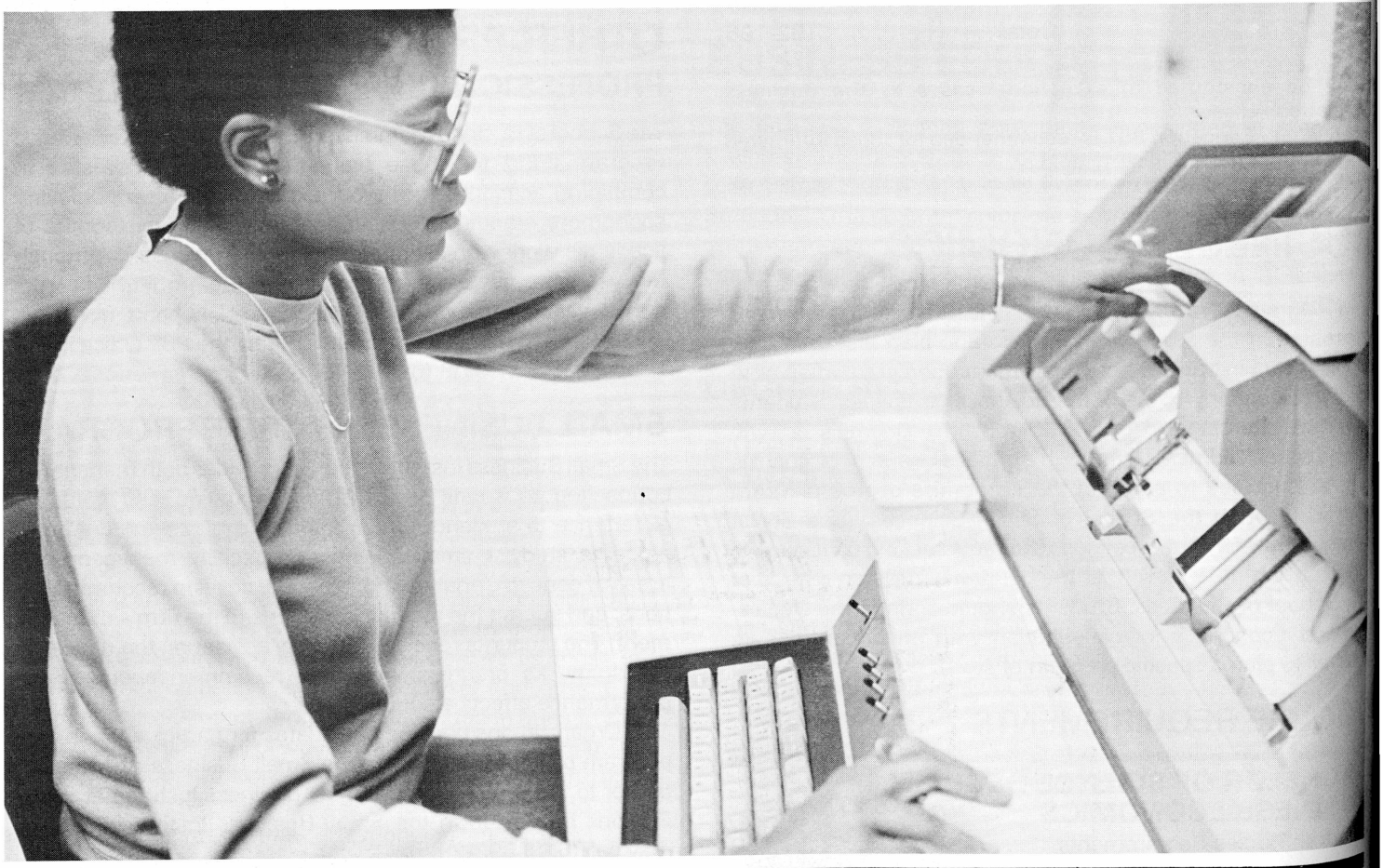
The School of Business administers the Professional Experience Program (PEP) for those students who are interested in combining academic and work experiences. After achieving sophomore standing, PEP students alternate six months of academic work with six months of work in industry. Although five years are needed to complete this program, PEP students derive valuable experience and financial support from this effort. Interested students should contact the PEP Office in the School of Business at (618) 692-3840.

SMALL BUSINESS INSTITUTE PROGRAM

The Small Business Institute Program provides both managerial counseling to small business in the region and valuable experience to students. Undergraduate seniors and graduate students study a small business, especially management's areas of concern, analyze the situation, develop recommendations, and submit the recommendations to the firm's management. The students report to a faculty adviser on the nature of the study, its progress, and final recommendations. Their performance affects a course grade.

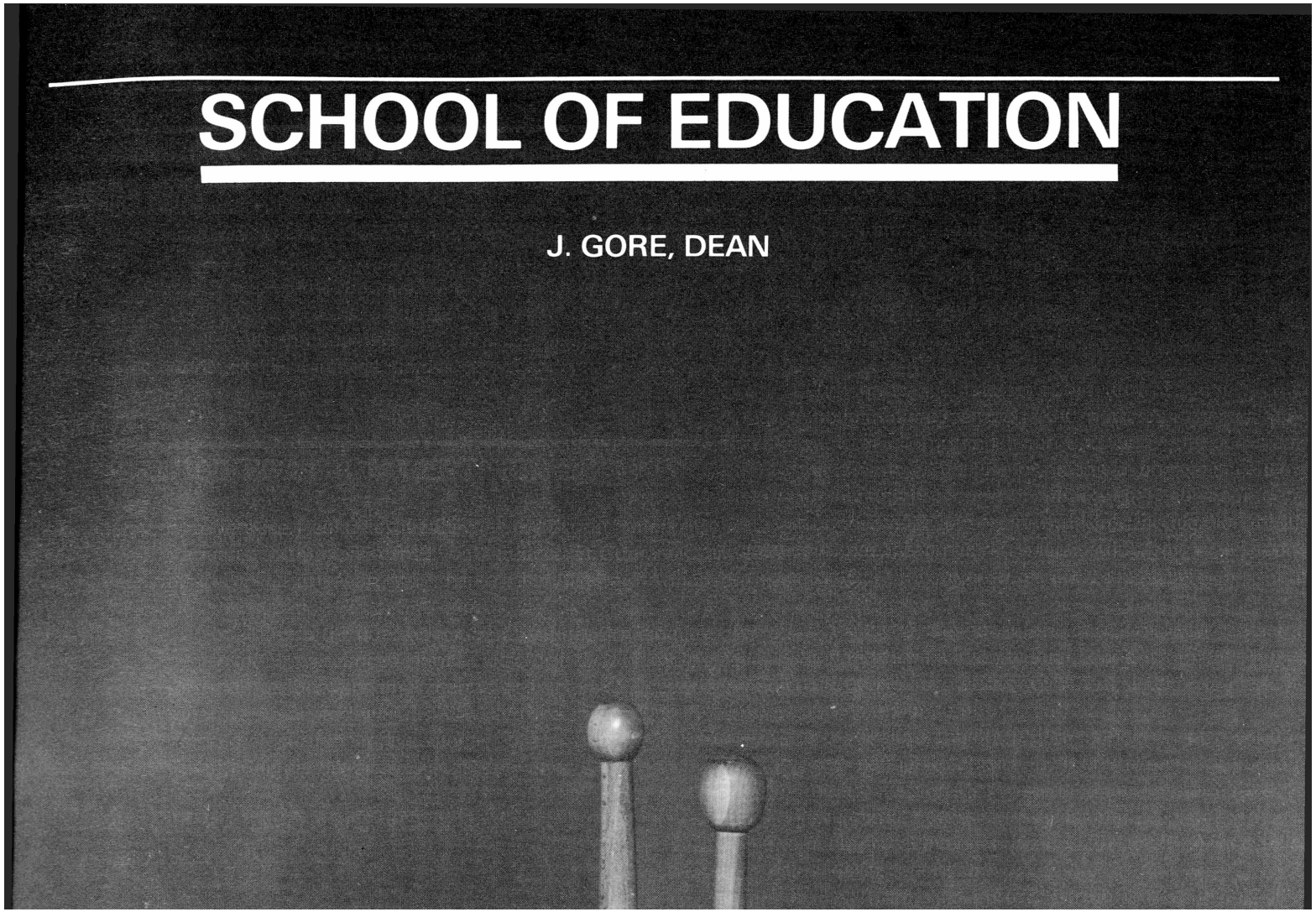
Organizations become candidates for participation in this program by applying either to the Small Business Administration or to the Director of the Small Business Institute at SIUE. Persons interested in the Small Business Institute Program may call (618) 692-2929.





SCHOOL OF EDUCATION

J. GORE, DEAN



The School of Education offers undergraduate programs in professional education and in psychology. Professional education programs prepare students for teaching positions in early childhood, elementary, health education, secondary, special, and physical education. In addition, a program in recreation is available for students interested in becoming recreation directors in a variety of public and private agencies. The psychology program is offered both as a nonprofessional bachelor of arts major and as a preprofessional program for students who wish to pursue careers as psychologists. Through any of the undergraduate programs students may also become qualified to enter graduate studies in the School of Education.

ADMISSION AND ADVISEMENT

Procedures for admission to different programs in the School of Education vary; therefore, students should consult the appropriate department chairperson for specific information. Teacher education students must be officially admitted to a program in the appropriate department in order to secure a student teaching assignment, to be graduated in teacher education, or to qualify for a teaching certificate. For admission to any program in teacher education, a student must present a grade point average of at least 3.4, must receive a grade of C or better in both GSK 101 and 102, and must pass a test in basic skills.

Undergraduate advisers are available to work with students interested in pursuing any of the programs offered by the School of Education. Students should consult with advisers to obtain information about employment opportunities, the general characteristics of courses in their field, certification requirements, and the aptitudes associated with successful professional practice. Most students find it useful to establish and maintain continuing communication with their advisers throughout their undergraduate programs, from initial advisement through graduation. Students may arrange to see advisers by requesting appointments in the office of the appropriate department in the School of Education.

DEGREES AND CERTIFICATES

The School of Education grants the Bachelor of Science degree in Education, the Bachelor of Science degree in Recreation, and the Bachelor of Arts or Bachelor of Science degree in Psychology. Upon successful completion of a teacher education program, students qualify for the teaching certificate in the State of Illinois and may also qualify for the teaching certificate in other states. Students taking degrees in other majors may also qualify for a secondary teaching certificate by completing an approved program in teacher education.

ACCREDITATION

The following undergraduate teacher education programs have received approval from the Illinois State Board of Education and are accredited by the National Council for the Accreditation of Teacher Education (NCATE).

Elementary Certificates

Early Childhood[1]
Elementary (K-9)

Secondary Certificates (6-12)

Art
Biology
Business Education
Chemistry
Earth Science[2]
English
French
General Science and Mathematics
Geography
German
Government
History
Mathematics
Physical Education
Physical Science
Physics
Spanish

Special Certificates (K-12)

Art
Music
Physical Education
Educable Mentally Handicapped
Emotionally Disturbed[3]
Learning Disabilities[3]
Speech and Hearing Impaired

[1]Approved November, 1975
[2]Approved December, 1968
[3]Approved June, 1973

CURRICULUM AND INSTRUCTION

The Department of Curriculum and Instruction offers programs leading to the Bachelor of Science Degree in Education which fulfills requirements for certification of entitlement in Elementary Education, Early Childhood Education and Secondary

Education. Elementary Certification includes kindergarten through grade nine. With the Illinois Early Childhood Certificate, students are qualified to teach children through age six, but excluding public school kindergarten. The Secondary Certificate covers grades six through twelve.

Professors:
Ahlbrand, W. P., Baden, D. J., Carpenter, R., Comer, J. M., Gore, J. (Dean, School of Education), Harmin, M., O'Brien, T. C., Rockwell, R. E., Starr, D. F., Wehling, L.

Associate Professors:
Boss, H. T., Brown, W. L., Bruker, R. M., Darnell, D., Jordan, A. E., Keefe, D. R., Nall, S. M., Patty, D. L., Turner, C. J., Williams, R. A., Wilson, R. (Chairperson)

Assistant Professors:
Meyer, V. E., Owens, J. L.

Instructor:
Havis, B. J.

ELEMENTARY EDUCATION

The program in Elementary Education requires 116 hours of general education and 76 hours of professional education. Transfer students may be required to complete additional hours in general education to meet certification requirements. Elective hours may apply toward a second major, such as early childhood education or special education.

To be admitted, students must:

1. Complete 64 quarter hours of course credit with a grade point average of 3.40 or higher;
2. Demonstrate competence in basic skills;
3. Receive a grade of C or better in both GSK 101 and 102; and
4. Successfully complete the introductory course, Elementary Education 200.

Requirements 1, 2, and 3 above must be met before enrolling in the introductory course. Competence tests in the basic skills are given several times each year. Students should consult the Office of Student Teaching and Advisement for specific dates and times. Although no other professional course requirement may be taken prior to Elementary Education 200, students may take Psychology 301 concurrently.

The elementary education program is field based, involving both students and professors in regular participation in public school classrooms. Students participate in the schools one-half day per week, thereby meeting the state requirement of at least 100 hours of clinical experience.

Courses are grouped into three field experiences. It is necessary to pre-register for all of the field experience courses in the Student Teaching and Advisement Office. Field Experience I is a group of classes in which students spend the major part of two days in a public school and two days in campus classes. Students study techniques of teaching in content areas (e.g., reading, etc.) and learning theory. They have opportunities to demonstrate skills learned with pupils in public schools and on videotapes (microteaching) for analysis and critique.

Field Experience II is a group of specialized methods courses (e.g., science, language arts) organized in much the same manner as Field Experience I.

Field Experience III is student teaching and is the culminating experience. In this experience students intern in a school and, under guidance of a cooperating teacher and University supervisor, gradually assume the role of a regular teacher.

The Reading Center is a well-equipped laboratory of diagnostic and instructional materials and equipment used in diagnosing and correcting reading deficiencies. Students enrolled in the sequence of reading courses get practical experience in the Center working with pupils who are transported to campus from the surrounding elementary and secondary schools. The Reading Center also serves the public and parochial schools of the area by providing a facility where current materials can be studied and evaluated.

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE DEGREE, ELEMENTARY EDUCATION

General Education Requirements 116
- GHA Humanities and Fine Arts 28
  (to include a course in Art, Music, Philosophy, and 12 hours of Literature)
- GIS Interdisciplinary 4
- GSK Skills (101, 102, 123, 152 or 162) 16
- GSM Science and Mathematics 24
  (including 12 hours of Math and 12 hours of Science)
- GSS Social Science 20
  (including GSS 200, 201, or 202)
- Fitness and Leisure Skills 8
  (to include HEd. 201-3)
- General Education Electives 16

Professional Education Requirements 76
- Pre-Admission Courses 6
  Ed. El. 200-2
  Psych. 301-4
- Field Experience I 16
  Ed. El. 314, 337, 343, 365
- Field Experience II 16
  Ed. El. 338, 415, 442, 445
- Additional Courses 22
  Ed. El. 413-4
  Sp. Ed. 400-4
  Art 330a-3
  Music 200-3 or 300-3
  P.E. 350-4
  GSS 370-4 or Ed. Fd. 355-4
- Field Experience III 16
  Ed. El. 451-16

Total 192

EARLY CHILDHOOD EDUCATION

The Early Childhood Program consists of 116 hours of general education, 54 hours of professional education and 22 hours of electives. Elective hours may be taken in course work that would apply toward a second major, such as elementary education or special education.

Policies and procedures relative to admission and retention explained in the previous elementary education section apply to students in the early childhood program as well.

Students regularly participate in nursery schools and day care centers throughout the program. The early childhood program provides opportunities for students to accumulate at least 100 clock hours of pre-student teaching clinical experience.

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE DEGREE, EARLY CHILDHOOD EDUCATION

General Education Requirements	116
(See elementary education section)	
Professional Education Requirements	54
Elementary Education 200-(2), 201-(4), 202-(4), 317-(4), 412-(4), 420-(4), 421-(4), 422-(4), Special Education 400-(4), 440-(4), 441-(4), Speech Pathology and Audiology 312 or Special Education 498-(4), and Elementary Education 450-(16)	
Electives	22
Total	192

The Instructional Materials Center, located in Classroom Building II, Room 1208, houses materials, equipment, resource books, periodicals, and journals pertaining to early childhood education. All early childhood education classes, both graduate and undergraduate, are held in the center. Therefore, early childhood education majors have exposure to professional literature in the field and ready access to it. Young children are often brought to the center during classtime for observation and interaction with students. Seminars and colloquia are also held in the center for the early childhood community in the metropolitan area.

SECONDARY EDUCATION

The Secondary Education Program is a four-year professional program culminating in a teaching certificate for junior high schools, middle schools, and secondary schools. The program includes work in general education, teaching fields, and professional education.

In the first two years the student completes a University College program of general education in Natural Science/Mathematics, Social Science, Humanities/Fine Arts, and Communication Skills (English composition, verbal communication and logic). During this time the student also enrolls in an introductory Education course designed to develop a clearer focus regarding his or her professional goals. Information concerning employment opportunities is given in this course along with opportunities for career guidance in consultation with a secondary education adviser.

During the third and part of the fourth year, work in the major teaching field (such as Art or Biology) is normally completed. The remainder of the program involves professional education experiences in a field based teacher education program; this may be taken in a two- or three-quarter sequence and is usually completed during the fourth year.

For admission to the Secondary Education program, students must present an overall grade point average of 3.4, must receive a grade of C or better in both GSK 101 and 102, and must pass a basic skills test. In addition, they must successfully complete the introductory course in education, and must receive recommendations from the advisers in Education and their teaching field.

Upon completion of the program the student is granted the bachelor's degree and is eligible for a grades 6-12 teaching certificate in the teaching field(s) in which work was done. It is also possible to obtain a "broad field" certificate in Art, Music, and Physical Education, which would qualify the individual to teach these subjects in kindergarten through grade 12.

TEACHING FIELDS

In cooperation with other Schools at the University a wide range of teaching fields is available to students in secondary education. Assistance in making a choice between these fields can be obtained from a secondary education adviser in the Office of Teacher Education. The adviser also provides students with career guidance, the details of the teaching field programs, and directs them to a teaching field adviser.

A student who is preparing to teach at the junior or senior high school level may select first teaching fields from the following:

Art
Biology
Chemistry
Earth Science
English
Foreign Languages
Geography
Government
Health Education
History
Mathematics
Physical Education
Physics
Speech

The number of academic hours required for a first teaching field is stated by academic field elsewhere in this catalog.

The second teaching field consists of at least 27 hours, unless specified otherwise, and may be selected from any of the following:

Art
Biological Sciences
Chemistry
Driver Education
Economics
English
Foreign Languages:
French, German, Spanish
Geography
Government
Health Education
History
Instructional Materials:
Library Science or
Audio-Visual Option
Mathematics
Music
Physical Education
Physics
Psychology
Sociology
Speech

Broad teaching fields (not requiring a second field), showing the hour requirement, may be selected from the following:

Art Education (K-12 or 6-12 certification)	70
Business Education (6-12 certification)	75
General Science and Mathematics (junior high school)	85
English	72
Music Education (K-12 certification)	78-93
Physical Education (K-12 certification)	72
Physical Science Education	75

The program outline for secondary education students is as follows:

General Studies Requirements	60
These must include general psychology, United States history or American government.	
Professional Education Requirements	37
Secondary Education 215	
Education 305	
Foundations of Education 355	
Secondary Education 401b, 401c	
It is recommended that all secondary education students also take at least one course in the teaching of reading as an elective course.	
Teaching Field Requirements and Electives	75
A minimum of 48 hours is required for the principal teaching field; if a student prepares for a second teaching field, at least 27 hours may be required in that field.	
Health Education	3
Physical Education Activity Courses	3
Electives	14
Total	192

HEALTH, RECREATION AND PHYSICAL EDUCATION

Professors:
Archangel, R., DeLong, B. J., Herrold, Z. C. (Chairperson)

Associate Professor:
Buddell, W., Grist, A. L., Guelker, R. M., Kristoff, L. D., Luedke, G. C.

Assistant Professors:
Bobka, L. A., Gallatin, H. J., Goldsmith, M. D., Gunsten, P. C., Lee, R. E., Moehn, L. N., Sappington, V. E., Schild, M. M.

Instructor:
Bigham, E. M., Whitted, J. J.

Lecturer:
Carpenter, S.

The Department of Health, Recreation and Physical Education offers undergraduate programs for students interested in careers in health education, recreation education, or physical education. Students interested in careers as physical education teachers have three special options from which to choose. Courses are available in health education and driver education, which students may use to seek certification through transcript evaluation by the Illinois Office of Education.

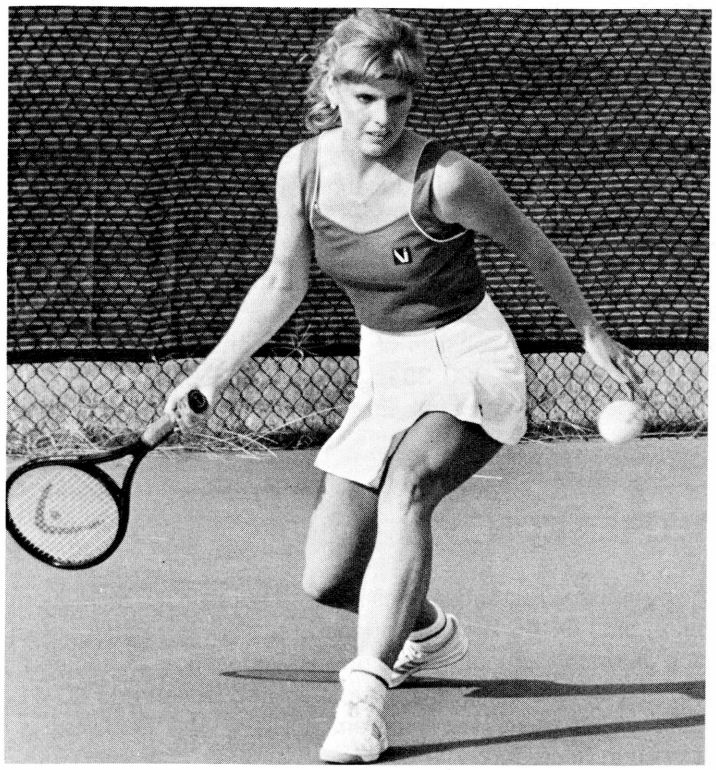
Prior to fulfilling any major area requirements students must be admitted to the major area program. A transcript of previous college work and an application for admission must be on file with the department. Admitted students will be notified by letter from the department.

The specific degree programs available through the Department of Health, Recreation and Physical Education are outlined below. Interested students should contact a departmental adviser in the appropriate field.

HEALTH EDUCATION

Drawing from the biological, social, and behavioral sciences, the program in health education provides knowledge and skills essential for positions in schools and in other community settings. For those planning to teach, the program leads to the Illinois Secondary Teaching Certificate, which applies to the teaching of health education in grades six through twelve. For students interested in careers oriented toward community health education, the program provides preparation for positions in public and private agencies including hospitals, clinics, and neighborhood health centers. Students seeking careers in nutrition, drug counseling, and sexuality services will find health education an excellent background preparation.

Interested students should contact a health education



adviser in the Department of Health, Recreation and Physical Education located in the Sam M. Vadalabene Center for Health, Recreation and Physical Education.

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE DEGREE, HEALTH EDUCATION

General Education	70
A. General Studies (including GSM 130, 233, GIS 342)	60
B. Prerequisites to the Major (including Chemistry 110a, Health Education 201, 3 hours of Physical Education Activities)	10
Health Education Major Concentration (including Health Education 205, 250, 300, 334s, 355, 360, 470, 471, Nursing 170, Biology 312a, Special Education 400)	45
Electives[1]	8
2 or more courses selected from the following: Health Education 313s, 350, 410, 462, 463, 464, 465	
Professional Education (including Health Education 460, Secondary Education 215, 352, Education 305, and Foundations of Education 355)	32
Electives or Second Teaching Field	37
Total	192

[1]Substitutes allowed with adviser's consent

MINOR REQUIREMENTS

In addition to the degree program, the Department of Health, Recreation and Physical Education offers a minor in health education. This minor is available to majors in any field and is not restricted to those in physical education or recreation.

A minor in health education is available for those who wish to receive teacher certification at either the elementary or secondary level. It consists of 30 hours and includes Health Education 201, 205, 300, 334s, 350 or 460, 355, 410, 471, and one of the following: Health Education 313s, Psychology 301, 303, 432.

RECREATION

The program in recreation consists of 47 hours in the recreation major, plus 44-45 hours of supporting work in related fields such as health education and physical education. In addition, students complete 60 hours in general education and 40-41 hours of electives. The program leads to the Bachelor of Science in Recreation.

CAREER OPPORTUNITIES

Graduates are prepared for employment as recreation specialists in a variety of settings, including community agencies, parks, educational institutions, and industry.

Interested students should contact a recreation adviser in the Department of Health, Recreation and Physical Education located in the Sam M. Vadalebene Center for Health, Recreation and Physical Eduation.

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE DEGREE, RECREATION EDUCATION

General Studies Requirements	60
Professional Courses	27
Recreation 100, 200, 348, 349, 365	16
Recreation 390, 410, 420	11
Professional Experiences	20
Recreation 389 (must be taken after sophomore year)	4
Recreation 400	16
Interdisciplinary Requirements	44-45
Accounting 201	4
Health Education 201, 334s	7
Nursing 170	4
Physical Education 117a, b, or 302a, 117c, 118z, 305, 350 or 383, 384, 402, 427	21-22
Psychology 303 or 304, 307	8
Electives	41-40
Total	192

PHYSICAL EDUCATION

The major in physical education requires a minimum of 48 hours, including 26 hours in the theory core, 16 hours in activities courses, and 6 hours of electives. However, students who plan to obtain a teaching certificate must complete additional studies, the amount varying according to whether they are interested in the secondary (6-12) or special (K-12) certificate.

To be admitted, all students must submit the results of a recent physical examination. In addition, non-teaching students must present a grade point average of at least 3.00. Students seeking teacher certification must present a grade point average of 3.40, must receive a grade of C or better in both GSK 101 and 102, and must pass a test in basic skills. Depending upon the specific program the student selects, additional admission requirements must be met. For that information, students should contact their physical education adviser in the Sam M. Vadalabene Center for Health, Recreation and Physical Education.

Two minors are also available, one for the general student who wishes to study physical education as a matter of personal interest, the other for any student who plans to coach in either a school or non-school setting.

In addition to the major and minors, the Department of

Health, Recreation and Physical Education offers a variety of physical activity courses to general students. These courses, numbered PE 102 through 199 are open to men and women, and may be taken on a Pass/No Credit basis.

DEGREE REQUIREMENTS

PHYSICAL EDUCATION MAJOR: 48 HOURS

General Studies Requirements 60
Physical Education Theory Core 26
- Health Education 334s 4
- Physical Education 303a, 303b, 304a, 304b, 410, 420 22

Physical Education Activities 16
- Fitness - Select 2
  - Physical Education 300b, 300g, 301h 4
- Team and Individual - Select 2
  - Physical Education 300f, 300h, 300i 4
- Rhythms - Select 1
  - Physical Education 301g, 302a 2
- Field Sports - Select 1
  - Physical Education 301a, 301i 2
- Individual - Select 2
  - Physical Education 302e, 302f, 302g 4

Electives 6
- Select from 300/400-level Physical Education courses (Students seeking teacher certification must take three additional activity courses as the electives.)

Second Major or Electives 84

Total 192

SECONDARY (6-12) CERTIFICATION: 105 HOURS

General Studies Requirements 60
Physical Education Theory Core 26
- Health Education 334s 4
- Physical Education 303a, 303b, 304a, 304b, 410, 420 22

Physical Education Activities 16
- Fitness - Select 2
  - Physical Education 300b, 300g, 301h 4
- Team and Individual - Select 2
  - Physical Education 300f, 300h, 300i 4
- Rhythms - Select 1
  - Physical Education 301g, 302a 2
- Field Sports - Select 1
  - Physical Education 301a, 301i 2
- Individual - Select 2
  - Physical Education 302e, 302f, 302g 4

Electives 6
Physical Education 22
- Physical Education 305, 350, 382, 470 16
- Physical Education 389 6

Professional Education 35
- Education 305 4
- Foundations of Education 355 4
- Health Education 201 3
- Secondary Education 215 4
- Secondary Education 352p 16
- Special Education 400 4

Electives 27

Total 192

K-12 CERTIFICATION: 124 HOURS

General Studies Requirements 60
Physical Education Theory Core 26
- Health Education 334s 4
- Physical Education 303a, 303b, 304a, 304b, 410, 420 22

Physical Education Activities 16
- Fitness - Select 2
  - Physical Education 300b, 300g, 301h 4
- Team and Individual - Select 2
  - Physical Education 300f, 300h, 300i 4
- Rhythms - Select 1
  - Physical Education 301g, 302a 2
- Field Sports - Select 1
  - Physical Education 301a, 301i 2
- Individual - Select 2
  - Physical Education 302e, 302f, 302g 4

Electives 10
- Select from 300/400-level Physical Education courses

Physical Education 37
- Physical Education 305, 350, 382, 383, 384, 387, 388, 389, 390, 470 33
- Health Education 350 4

Professional Education 35
- Education 305 4
- Elementary Education 351d 8
- Foundations of Education 355 4
- Health Education 201 3
- Secondary Education 215 4
- Secondary Education 352p 16
- Special Education 400 4

Additional Electives 8

Total 192

PHYSICAL EDUCATION MINOR REQUIREMENTS

General Studies Requirements 60
Physical Education Theory Core 14
- Physical Education 303a, 304a, 304b 10
- Health Education 334s 4

Physical Education Activities 10
- Physical Education 300g, 300h, 300i, 302a 8
- Physical Education 302e or 302f 2

Electives 8
- To be selected from the following:
- Physical Education 400a, b, c, d, e, f, g, 476 ..... each 2
- Physical Education 402, 420, 425 ..... each 4

Additional Major and Electives 100

Total 192

COACHING MINOR REQUIREMENTS

General Studies Requirements	60
Physical Education	32
Physical Education 323, 389, 402, 425, 473, 476	22
Physical Education 400a, b, c, d, e, f, g—each 2	6
Health Education 334s	4
Additional Major and Electives	100
Total	192

DRIVER EDUCATION CERTIFICATION

Students may seek certification in Driver Education through transcript evaluation by the Illinois Office of Education. Courses offered by the Department in meeting this certification are: Health Education 302s, 313s, 443s, 445s.

In addition, 12 quarter hours must be taken from among the following areas: Advanced Psychology and Sociology, Health Education, and Instructional Technology. These courses must be approved by the University Driver Education Coordinator. For further information contact the Department of Health, Recreation, and Physical Education.

MINOR IN INSTRUCTIONAL TECHNOLOGY

Through the Department of Instructional Technology, courses are offered in the utilization and management of teaching and learning materials. Programs may be designed to prepare either audio-visual coordinators or school librarians. A minor consisting of 28 hours is available for both secondary education students and non-education majors. Elementary education majors may also elect to pursue selected coursework in instructional technology.

The required courses for a minor are Instructional Technology 401, 417, and 445. Additional courses to fulfill the 28-hour requirement may be planned with the assistance of the appropriate adviser.

PSYCHOLOGY

Professors:
Brinkmann, E. H., Daugherty, R. A., Engbretson, R. O., Ferguson, E. D., Kleinman, K. M. (Chairperson), Kohfeld, D. L., Lamp, R. E., McCall, J. N., McLaughlin, R. J., McMahon, F. B., Russo, J. R., Taliana, L. E., Traxler, A. J.

Associate Professors:
Hatfield, J. L.

Assistant Professor:
Rogers, B. J.

Visiting Assistant Professor:
Krohn, E. J.

Adjunct Professor:
Goldman, H.

Assistant Adjunct Professor:
Botto, R. W.

Assistant in Psychology:
Ruhl, R.

The undergraduate courses in pscyhology acquaint students both with the methods used and knowledge gained by psychologists in their continuing efforts to understand behavior. Students will study basic psychological processes such as learning, perception, 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 at the same time 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 at the bachelor's level and serves as preprofessional training for students wishing to attend graduate school and pursue careers as psychologists. The psychology major is also valuable preparation for other professional careers such as medicine, dentistry, and law.

The psychology major provides a high degree of flexibility. It is designed to provide students both with practical career-oriented skills and a theoretical foundation from which psychological processes can be understood. Elective courses are open to all undergraduate students, regardless of major.

PSYCHOLOGY DEPARTMENT FACILITIES

The Psychology Department has extensive laboratory, classroom and supporting facilities. Ample space and equipment for a wide variety of student and faculty research are available. Individual research cubicles, electrically shielded and sound shielded rooms, and large (group) and small (individual) areas are available for observations which may be made by utilizing mirrors and intercoms. Facilities exist for studying children and adults, as well as laboratory animal subjects.

Computers are connected by cables to many of the laboratory rooms and can be used for presenting stimuli and for collecting and analyzing behavioral responses. An extensive and sophisticated videotape system allows student and faculty researchers to collect data in both laboratory and non-laboratory situations. The Psychology Department Test Center contains a large library of psychological tests; it exists both to service appropriate courses and to provide help to student and faculty researchers desiring to employ these measures.

CAREER OPPORTUNITIES

Graduate training (at least at the master's level) is a prerequisite for a career as a psychologist. However, students obtaining an

undergraduate major in psychology will find themselves well prepared to pursue a variety of careers in which basic knowledge of psychological processes is valuable. Students with an undergraduate major in psychology may consider employment as personnel officers, insurance specialists, laboratory technicians, sales or public relations specialists, suicide prevention workers, family planning counselors, mental health or corrections workers, youth counselors, child care workers, drug counselors, occupational therapists and statisticians/research analysts.

PROGRAMS IN PSYCHOLOGY

Following declaration of a major in psychology, students will be assigned to a psychology faculty adviser. Students should contact their faculty adviser as soon as possible so that an academic program can be developed which most satisfies students' interests and needs. Students are encouraged use their faculty adviser as a resource for questions about the department and the University.

All students declaring a major in psychology are strongly advised to take Psychology 300a as a first course in psychology. Majors are expected to complete the core sequence of Psychology 300a, b, and c, in order (not concurrently) within the first three quarters after declaring their major. Psychology 300b must be sucessfully completed before students may enroll in 300c. Majors and minors who desire to transfer credit from other colleges or universities are advised to have their transcripts evaluated as soon as possible by the psychology undergraduate adviser.

While only the sequence of Psychology 300a, b, and c is required of psychology majors, the department has recommended programs for students (a) wishing to obtain a general background in psychology; (b) interested in working in a community service agency; (c) interested in working in business and/or organizations; or (d) planning graduate training in psychology, law, medicine, dentistry, and other professions. Students are encouraged to construct a program which best meets their needs in consultation with their faculty advisers.

Other aspects of the psychology curriculum which may be of interest are: (a) an honors program in which selected students will be given the opportunity to attend special seminars and to work closely with faculty in a variety of applied and research settings, (b) a portfolio plan in which the department will maintain files containing examples of the students' academic work that they choose to insert, and (c) an independent projects course in which students may work either in the laboratory or in a field setting under the supervision of a faculty member.

DEGREE REQUIREMENTS

BACHELORS OF ARTS DEGREE, SCHOOL OF EDUCATION

General Studies Requirements 60
GSS 260 and 261 do not count toward major.
Requirements for Major in Psychology 61
Foreign Language 12
Psychology 300a, b, c 13
Should be completed within three quarters after declaration of major.
Psychology electives 36
Psychology 432 does not count toward major.
Minor 28
Electives 43

Total 192

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE DEGREE, SCHOOL OF EDUCATION

This degree program is identical to the Bachelor of Arts degree program with the exception of the foreign language requirement. For the Bachelor of Science degree no foreign language is required, thus allowing for 55 hours of electives. All students should plan their program in consultation with the psychology adviser.

General Studies Requirements 60
GSS 260 and 261 do not count toward major.
Requirements for Major in Psychology 49
Psychology 300a, b, c 13
Should be completed within three quarters after declaration of major.
Psychology electives 36
Psychology 432 does not count toward major.
Minor 28
Electives 55

Total 192

All psychology majors must have a cumulative GPA of at least 3.00 in psychology courses to be recommended for graduation.

MINOR REQUIREMENTS

A minor in psychology consists of a minimum of 28 hours. Psychology 300a is required plus 24 hours of psychology electives. Psychology 432, GSS 260, and GSS 261 do not count toward a psychology minor. Students intending to pursue an occupation related to psychology (e.g., counseling or personnel work) should also include in their program Psychology 300b and c, plus psychology electives to meet minimum hour requirements.

Students who have completed GSM 244 or Sociology 308 should not include Psychology 300b in their program of study for a minor in psychology.

SPECIAL EDUCATION

Professors:
Long, R. D., Shea, T. M., Wagner, R. M. (Chairperson)

Associate Professor:
Whiteside, W. R.

Assistant Professors:
Blackhurst, E. W., Brimer, R. W.

Instructor:
Sims, P. J.

The Department of Special Education offers preparation programs at the undergraduate level for teaching emotionally disturbed children, those with learning disabilities, and the mentally retarded. The Department also offers coursework directed toward, as well as courses in, teaching the socially maladjusted or severe/ profoundly handicapped (TMH-Autism), pre-school education, high school teaching, and career/vocational education of the handicapped.

Students majoring in the study of mental retardation, emotional disturbance, or learning disability may opt for certification in all three areas.

The Special Education Instructional Materials Center provides assessment and methodology materials for use in Special Education and related fields. It is also used as an observation and participation laboratory offering demonstrations related to classroom management and techniques of teaching.

ELIGIBILITY FOR ADMISSION

To be eligible for admission to the Special Education Department, students must:

A. Pass a basic skills test (See the advisement office for calendar of dates and sign up for this test in Building II, Room 1122).
B. Complete 90 hours of coursework with a cumulative grade point average of 3.4 or higher.
C. Attain a grade of C or higher in English Composition, GSK 101 and 102, or the equivalent for a transfer student.
D. Attain a grade of C or higher in Oral Communications, GSK 123, and Critical Thinking, GSK 152, or the equivalent for a transfer student.
E. Attain a grade of B or higher in the Exceptional Child, Special Education 400, or the equivalent for a transfer student. (Only upper level courses are accepted).
F. Complete and submit to the Special Education Undergraduate Adviser's Office all forms and documents listed in the handbook entitled Procedures for Advisement.

(Note: Except for Special Education 400, only students who have passed the TAP test may take course work in Special Education.)

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE DEGREE, SPECIAL EDUCATION

Single Certification

General Studies Requirements 76
- GHA Area Courses: GHA 110, 136, two GHA literature courses 16
- GIS Area: any course 4
- GSM Area Courses: GSM 101, 130, 212, two mathematics courses 20
- GSS Area Courses: GSS 220, 260, 370, two courses from GSS 130, 150, 210, or 240 20
- GSK Area Courses: GSK 101, 102, 123, 152 ... 16

Health and Physical Education 6
- Health Education 201
- Three 1-hour physical education activity courses

Professional Education Requirements 40
- Education 305
- Elementary Education 314, 337, 338, 415
- Physical Education 350
- Instructional Technology 417, 445
- Psychology 432
- Psychology 421 or Counselor Education 422

Special Education Requirements 56
- Special Education 400, 410a, 410b, 410g, 411, 420a, 420b, 430, 470, 481, 499 (16)

Electives 16

Total 194

MINOR REQUIREMENTS

Students wishing a minor in special education must complete 28 hours in one or more of the areas of specialization.

STUDENT TEACHING

Student teaching is the culminating experience in all professional teacher education programs. It is needed in order to meet the degree requirements of the School, the certification requirements of the states of Illinois and Missouri, and the standards of the National Council for the Accreditation of Teacher Education.

Student teaching requires full-day involvement in a public school. Therefore, 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 upon time and energy. Requests for an overload during student teaching must be approved by the Department Chairperson and the Associate Dean. Student teaching is not available during the summer quarter.

How to Apply

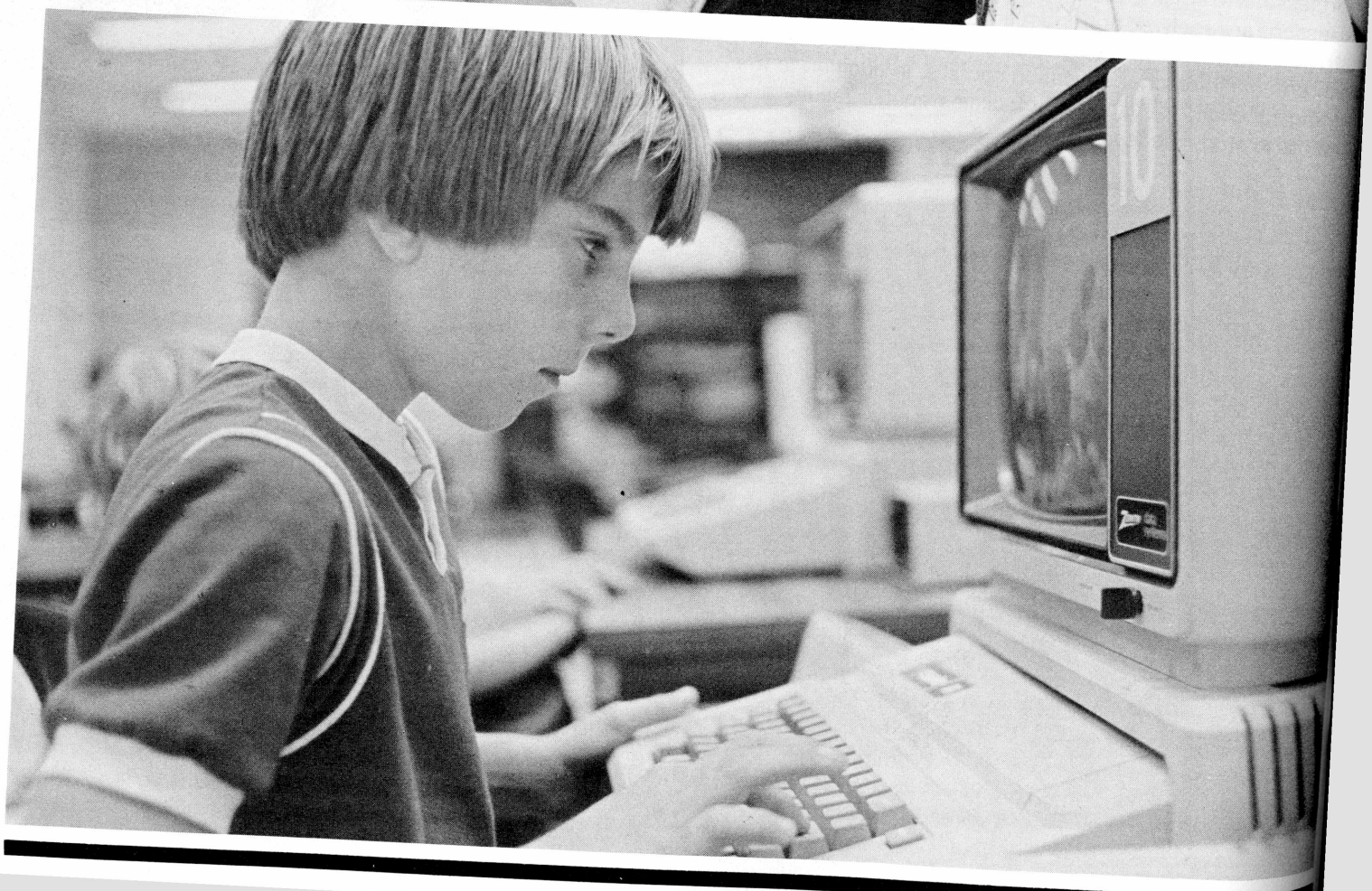
The student teaching application procedure begins during the year prior to the assignment. Each department has established policies regarding application for student teaching. Students should secure student teaching information from an adviser in the appropriate department of the School of Education. Junior and senior transfer students should contact an adviser during or before orientation week for application information.

Prerequisites

The following are prerequisites that must be met prior to registering and receiving an assignment for student teaching:

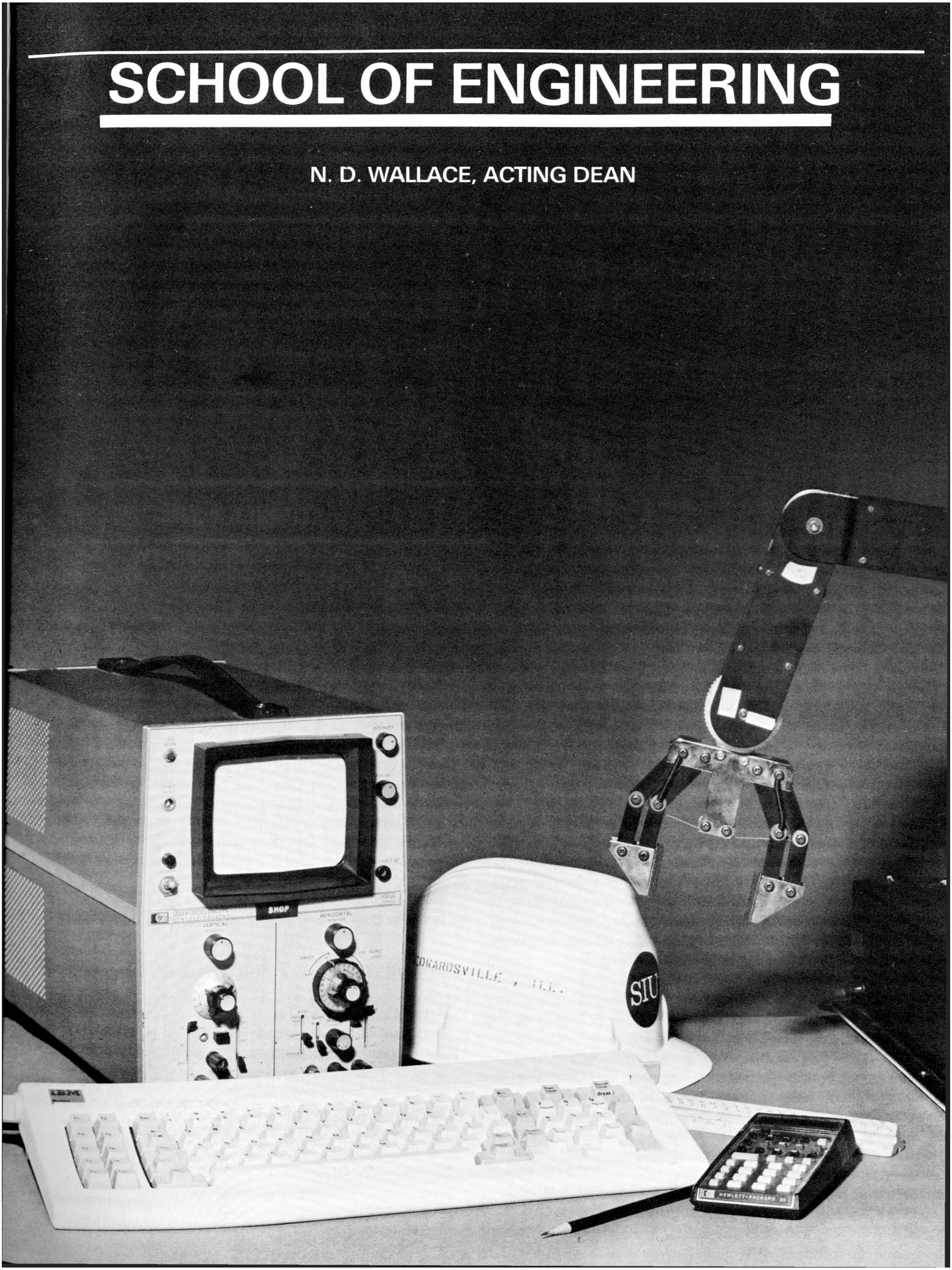
1. All prospective teachers, regardless of teaching field or academic major, must follow an approved teacher education program. Students must, therefore, consult with a School of Education adviser to make sure they are meeting requirements of an approved program well in advance of student teaching.
2. Student teaching assignments are made after admission to the School of Education and the completion of at least 144 hours. Students must have a minimum overall 3.4 grade-point average two quarters in advance of the teaching assignment. This grade-point average must be maintained for the assignment to be allowed. Transfer students must be in residence for a quarter prior to student teaching.
3. In compliance with University policy, record of a physical examination taken within the last ninety days must be on file in the University Health Service. A report of a tuberculosis skin test or X-ray taken within ninety days of the student teaching assignment is also required.

The School maintains several video recording studios which afford students opportunities to practice specific teaching skills under systematic conditions. Typically, students present short lessons to small groups of pupils. Subsequently, tapes of the lessons are analyzed and critiqued by the students and their instructors. Laboratory assignments comprise part of the requirements in teacher education courses. In addition to the training function, the laboratory facilities enable faculty and students to study the teaching process.



SCHOOL OF ENGINEERING

N. D. WALLACE, ACTING DEAN



The School of Engineering offers the Bachelor of Science in Engineering degree with majors in Civil Engineering, Electrical Engineering, and Industrial Engineering. The Civil Engineering and Electrical Engineering programs are accredited by the Accreditation Board for Engineering and Technology (ABET), the only nationally recognized agency for accrediting engineering curricula in the United States.

The School also offers the Bachelor of Science degree with a major in Construction. The construction program is designed to provide graduates with the knowledge and skills necessary to coordinate the multifaceted aspects of the construction industry.

Students who are interested in any of the majors offered by the School should seek advisement from the School when they initially enroll in the University. Enrollment in 300- or 400-level engineering courses is limited to engineering majors who have completed the pre-engineering program described below. Students wishing to enroll in 300-or 400-level engineering courses may do so only with the permission of the Dean of the School of Engineering.

Students enrolled in pre-engineering or one of the engineering fields must purchase a scientific pocket calculator, drafting instruments, and technical textbooks.

ADMISSION TO PRE-ENGINEERING

Students admitted to the pre-engineering program shall have met two criteria:

1. Completion of GSM 144, College Algebra (or high school equivalent), with a grade of C or better with current enrollment in MSCS 125, Pre-Calculus, or higher mathematics course.
2. Cumulative grade point average of 3.0.

PRE-ENGINEERING

The first five quarters of all engineering programs offered by Southern Illinois University at Edwardsville are common to all disciplines and form the basis of the pre-engineering program. Successful completion of the pre-engineering program allows students to select a major in one of the engineering disciplines. Students do not have to select a specific major until late in the sophomore year. The pre-engineering program is composed of the courses listed below:

Communications Skills: GSK 101, 102, 123; Engineering 101a; Mathematics, Statistics and Computer Science 172.

Engineering Science: Engineering 110, 260a, b, 200.

Mathematics: Mathematics, Statistics and Computer Science 150a, b, 260a, b, c, 305.

Physical Science: Chemistry 125a, b, 126a, b, Physics 211a, b, c, 212a, b.

Although humanities and social sciences are not part of the pre-engineering program, they complement the education of an engineer. Thus, to receive the Bachelor of Science in Engineering degree, students must complete 12 hours in one of the general areas of humanities or 8 hours in each of two areas of humanities. In addition, 8 hours in one of the general areas of social sciences, other than economics, must be completed. These requirements may be, but are not necessarily, satisfied by the completion of the University general education requirements.

Students, both those enrolled at SIUE and those wishing to transfer to SIUE, must apply for admission to one of the engineering programs no later than April15 for fall quarter admission.

SAMPLE PROGRAM: PRE-ENGINEERING

FRESHMAN YEAR

FALL		WINTER		SPRING	
GSK 101	- 4	GSK 102	- 4	GSK 123	- 4
Math 150a	- 4	Math 150b	- 4	Math 260a	- 4
Chem 125a	- 4	Chem 125b	- 4	Phys 211a	- 4
Chem 126a	- 1	Chem 126b	- 1	Math 172	- 4
GHA Elec.	- 4	Engr 101a	- 2		
Engr 110	- 0				
	17		15		16

SOPHOMORE YEAR

FALL		WINTER		SPRING	
Math 260b	- 4	Math 260c	- 4	Math 305	- 4
Phys 211b	- 4	Phys 211c	- 4	Engr 200	- 4
Phys 212a	- 1	Phys 212b	- 1	(See	
Engr 260a	- 4	Engr 260b	- 4	below)	
GHA Elec.	- 4	GHA Elec.	- 4		
	17		17		16

During the spring term of the sophomore year pre-engineering students interested in Civil Engineering should enroll in Engineering 263 and 270; students interested in Electrical Engineering should enroll in Physics 302a and a GIS elective; students interested in Industrial Engineering should enroll in Engineering 270 and a GIS elective.

ADMISSION TO ENGINEERING MAJOR

Admission to an engineering major (Civil Engineering, Electrical Engineering and Industrial Engineering) requires satisfactory completion of the pre-engineering program described above. A student information handbook and application forms for admission to the major are available in the School of Engineering office. Applications should be filed in the School office no later than April 15 of the sophomore year.

Transfer Students

Transfer students wishing to enter pre-engineering or one of the engineering majors must contact the School of Engineering

for a transfer credit evaluation at least 30 days prior to the start of the quarter during which entry is desired. Students must supply copies of the pertinent transcripts and any other materials, such as course descriptions and syllabi that may be needed to perform the evaluation. Those students transferring at the junior and senior level must also meet the April 15 deadline for applying for admission to an engineering major and must be in good standing in the program from which they are transferring.

Only courses passed within the last 10 years will be considered for transfer credit. In addition, courses that were not part of an ABET accredited engineering program will normally not be considered for transfer credit toward any 300 or 400-level engineering course. The final decision of the acceptance of transfer credit for engineering courses shall be that of the faculty of the School of Engineering.

Academic Status

Students may be suspended by the School in any of the following circumstances:

a) a grade point average of 2.0 or less in any quarter;
b) a drop of the cumulative grade point average in the major to less than 3.0;
c) withdrawal and/or incomplete grades in half or more of the courses enrolled during two successive quarters of registration; or
d) any combination of three withdrawal, incomplete, or failing grades in a single course required by the major.

Students preparing for a career in engineering are bound by the same code of ethics as practicing engineers. Any violation of this code will result in disciplinary action which may include dismissal from the engineering program. Copies of the code of ethics are available in the School of Engineering Office.

Engineering majors on Scholastic Suspension may apply for re-admission by written application to the Undergraduate Retention Committee. The committee will make a recommendation to the Chairperson of the Department who will then make a recommendation to the Dean. If readmitted, the conditions of the re-admission must be met, or the students will be removed from the engineering program.

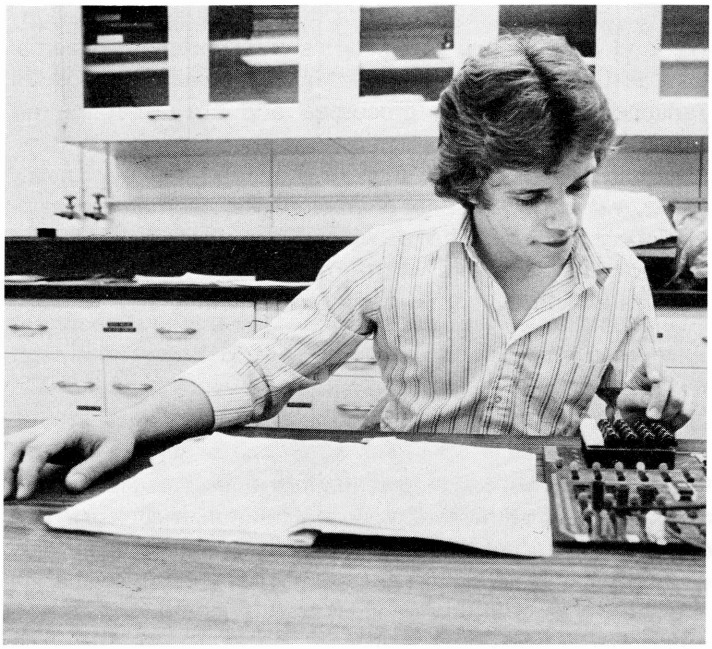
Graduation Requirements

1. Graduation from the School of Engineering requires at least 192 hours of credit acceptable to the School. Unacceptable credit includes, but is not limited to:

a) credit received (through CLEP or from a course) after credit has been received for more advanced work in the subject;
b) CLEP or transfer credit which duplicates SIUE credit; and
c) credit for two or more SIUE courses with similar or equivalent content.

2. Candidates for the Bachelor of Science degree or the Bachelor of Science in Engineering degree must meet the following requirements:

a) at least 48 hours of credit in one major with a grade point average of 3.0 or higher for all work in the major;
b) a grade point average of 3.0 or higher in all courses in the major area numbered above 299.



CIVIL ENGINEERING

Professors:
Duffey, H. J., Hanna, S. J. (Acting Chairperson & Acting Assistant Dean, School of Engineering), Korn, A., Rossow, M. P.

Associate Professors:
Bengtson, H. H., Cote, D. N.

Instructor:
Pierce, R. G.

Civil engineering is the profession in which a knowledge of the mathematical and physical sciences gained by study, experience, and practice is applied to develop ways to utilize the materials and forces of nature for the well-being of society. Since civil engineering is an extremely broad discipline, a limited degree of specialization in the fields of environment, structures, and transportation is allowed through the choice of senior electives. Brief descriptions of these fields of civil engineering are provided below.

Environmental engineers strive to improve the community by planning and designing facilities, treatment plants, and elaborate structures requiring the specialized knowledge of both environmental engineers and chemists, particularly in the control of water and air pollution.

Structural engineers are employed by a wide range of industries and agencies, primarily in the planning and design phase of projects. Strength and safety are the main concerns of the structural engineer. Typical projects include the design of buildings, bridges, dams, containment vessels and power

plants. Academic preparation includes studies in design (efficient and safe utilization of engineering materials, such as steel and concrete) and analysis (prediction of the structural forces and deformations caused by imposed loadings) in addition to studies in the physical sciences and mathematics.

Transportation engineers are involved in planning, designing, and constructing the nation's transportation systems. Transportation engineers assist in the local and regional transportation planning processes and are assuming an increasing role in the operation and maintenance of these systems. Diverse factors, such as structural design of pavements, vehicle operational characteristics, geometric design, traffic control, and site selection, are major concerns to transportation engineers, who also consider how transportation facilities affect environmental factors, including air and noise pollution.

CAREER OPPORTUNITIES

Civil engineers are engaged in administrative, commercial and technical work with manufacturing companies, construction companies, transportation companies and power companies as well as with consulting engineering offices in city and state engineering departments and in many branches of the Federal government.

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE IN ENGINEERING DEGREE, CIVIL ENGINEERING

General Studies Requirements	60[1]
Chemistry 125a, 125b, 126a, 126b	6
Earth Science 230	3
Economics 201, 305	4
Engineering 110, 101a, 200, 260, 263, 270, 300, 314, 315, 316, 319, 340a, 370, 376, 380, 440, 442, plus 16 hours of engineering electives	81
Mathematics 150, 172, 260, 305	28
Philosophy 311	
Physics 211, 212	10
Total	192

SAMPLE PROGRAM: CIVIL ENGINEERING

JUNIOR YEAR

FALL		WINTER		SPRING	
ESci 230	- 3	Engr 314	- 4	Engr 340a	- 4
Engr 315	- 4	Engr 316	- 4	Engr 376	- 4
Engr 370	- 4	Engr 319	- 4	Engr 380	- 4
Econ 201	- 4	Econ 305	- 4	GSK Elec.	- 4
	15		16		16

SENIOR YEAR

FALL		WINTER		SPRING	
Engr 300	- 4	Phil 311	- 4	Engr Elec.	- 8
Engr 440	- 4	Engr 442	- 4	GSS Elec.	- 4
Engr Elec.	- 4	Engr Elec.	- 4	GIS Elec.	- 4
GSS Elec.	- 4	GSS Elec.	- 4		
	16		16		16

[1]The University requirement for General Studies is 60 hours. This requirement is met by substituting Chemistry 125a for GSM 120, Economics 201 for GSS 150, Physics 211a for GSM 101, and Philosophy 311 for GHA 322.

MINOR REQUIREMENTS

A minor in Civil Engineering consists of 27 hours of electives selected from engineering courses concentrated in Civil Engineering and approved by the Chairman of the Department of Civil Engineering.

ELECTRICAL ENGINEERING

Professors:
Bollini, R., Brown, J., Jones, L. C., Rutledge, R. B.

Associate Professor:
Godhwani, A.

Assistant Professor:
Cheng, S.N.

Electrical engineering deals with electricity. It is concerned with electrons, magnetic fields, and electric fields.

Electrical engineers may specialize in tiny electronic devices and the use of these devices in circuits and systems. Electronic circuits and systems are used extensively in communications, computers, health fields, and entertainment systems, as well as automation and control. Electrical engineers also may be involved in the design of power plants and transmission systems to satisfy the increasing demands for electrical energy.

CAREER OPPORTUNITIES

Electrical engineers are concerned with the application of sound engineering principles in the design and construction of electrical and electronic equipment. The particular equipment may range from a microwave oven to an information transmission system for an unmanned planetary probe. The range of applications of electrical energy is extremely wide which makes electrical engineering a fascinating and challenging profession.

Electrical manufacturing companies use large numbers of engineers for design, development, research, manufacturing and sales. Public utilities employ electrical engineers. Other

potential employers are oil companies, railroads, food processing plants, biological laboratories, and chemical plants, the aircraft, missile and space industries, and various branches of the federal government.

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE IN ENGINEERING DEGREE, ELECTRICAL ENGINEERING

General Studies Requirements	60[1]
Chemistry 125a, 125b, 126a, 126b	6
Economics 201, 305	4
Engineering 110, 101a, 200, 260, 301, 326, 327, 328, 330, 341, 350, 351, 352, 353, 382, 401, 402, 444, 445, plus 12 hours engineering electives	80
Mathematics 150, 172, 260, 305	28
Philosophy 311	
Physics 211, 212, 302	18
Total	196

SAMPLE PROGRAM: ELECTRICAL ENGINEERING

JUNIOR YEAR

FALL		WINTER		SPRING	
Engr 301a	- 1	Engr 301b	- 1	Engr 301c	- 1
Engr 350	- 4	Engr 351	- 4	Engr 330a	- 4
Engr 326	- 3	Engr 327	- 3	Engr 328	- 3
Phys 302b	- 4	Engr 382	- 4	Engr 353	- 4
Econ 201	- 4	Econ 305	- 4	GSK Elec.	- 4
	16		16		16

SENIOR YEAR

FALL		WINTER		SPRING	
Engr 401a	- 1	Engr 401b	- 1	Engr 402	- 4
Engr 330b	- 4	Engr 341	- 4	Engr 445	- 1
Engr 444	- 3	Engr 352	- 4	Engr Elec.	- 4
Engr Elec.	- 4	Engr Elec.	- 4	GSS Elec.	- 4
GSS Elec.	- 4	GSS Elec.	- 4	Phil 311	- 4
	16		17		17

[1]The University requirement for General Studies is 60 hours. This requirement is met by substituting Chemistry 125a for GSM 120, Economics 201 for GSS 150, Physics 211a for GSM 101, and Philosophy 311 for GHA 322.

MINOR REQUIREMENTS

Twenty-seven hours are required, including Engineering 200. The remaining courses are electives to be selected from Electrical Engineering courses subject to approval by the Chairperson of the Department of Electrical Engineering.

INDUSTRIAL ENGINEERING

Professors:
Anderson, T. P., Solomon, R. C. (Adjunct), Wallace, N. D. (Acting Dean, School of Engineering)

Industrial engineering is a profession having an extraordinary breadth of application. During the decade an ever-increasing number of products commonly used by the American consumer have been manufactured in other countries. A large percentage of the total number of electric blankets, radios, and watches bought by Americans are now imported due to the fact that these products can be made at a lower cost in other countries. The basic objectives of industrial engineering relate to productivity—the most effective use of each dollar spent for materials, equipment, and employment. The United States faces a crisis in productivity that is expected to last for many years.

CAREER OPPORTUNITIES

Industrial engineers prepare plans for the arrangement of plants to give the most efficient utilization of resources. For instance, production lines must be perfectly timed to ensure smooth operation and optimal use of the worker's effort. Industrial engineers are concerned with automating manufacturing activities, developing data processing procedures, using computers to control production, and improving methods of handling materials.

Careers in industrial engineering frequently are in industrial plants. However, because of the very broad education of the industrial engineers, other businesses such as banks, department stores, insurance companies and state and federal government also employ industrial engineers.

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE IN ENGINEERING DEGREE, INDUSTRIAL ENGINEERING

General Studies Requirements	60[1]
Accounting 210	4
Chemistry 125a, 125b, 126a, 126b	6
Economics 201, 305	4
Engineering 110, 101a, 200, 260, 270, 300, 303, 320, 321, 332, 348, 410, 432, 458, 460, 471, 472, 474, 479, plus 12 hours of engineering electives	80
Mathematics 150, 172, 260, 305, 380	32
Philosophy 311	
Physics 211, 212	10
Total	196

SAMPLE PROGRAM: INDUSTRIAL ENGINEERING

JUNIOR YEAR

FALL		WINTER		SPRING	
Engr 303a	- 1	Engr 303b	- 1	Engr 303c	- 1
Engr 332	- 4	Engr 460	- 4	Engr 320	- 3
Engr 348	- 4	Engr 471	- 4	Engr 321	- 1
Econ 201	- 4	Econ 305	- 4	Engr 432	- 4
Math 380	- 4	GSS Elec.	- 4	Engr 474	- 4
				Acct 210	- 4
	17		17		17

SENIOR YEAR

FALL		WINTER		SPRING	
Engr 300	- 3	Engr 479	- 4	Engr 472	- 4
Engr 458	- 4	Engr Elec.	- 4	Engr Elec.	- 4
Engr 410	- 4	Engr Elec.	- 4	GIS Elec.	- 4
GSS Elec.	- 4	GSS Elec.	- 4	Phil 311	- 4
	15		16		16

[1]The University requirement for General Studies is 60 hours. This requirement is met by substituting Chemistry 125a for GSM 120, Economics 201 for GSS 150, and Physics 211a for GSM 101, and Philosophy 311 for GHA 322.

MINOR REQUIREMENTS

Twenty-seven hours are required, including Engineering 332 and 348. The remaining courses are electives to be selected from Industrial Engineering courses subject to approval by the Director of the Industrial Engineering program.

CONSTRUCTION

Professor:
Buchert, K. P.

Associate Professor:
Snell, L. M.

Assistant Professors:
Pocreva, R. S., Tavakoli, A.

The objective of the construction program is to provide graduates with the knowledge and skills necessary to coordinate the multifaceted aspects of the construction industry. This is accomplished by structuring the program so that basic scientific principles are augmented by business and engineering practices and procedures.

The construction industry is one of the largest components of the present economy and includes skilled and unskilled labor, engineers, accountants, financial analysts, and business managers. The scope of construction includes everything from the most meager project costing a few hundred dollars to projects whose total cost may be billions of dollars. The nature of the industry is such that the continuing changes in technology produce a need for personnel specifically trained in the managerial and scientific techniques of construction.

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE DEGREE, CONSTRUCTION

General Studies Requirements	60[1]
Accounting 201, 202	8
Chemistry 110a	4
Economics 201, 331	4
Engineering 101a, 263, 260a, 270	13
Finance 320	4
Management 242, 290	8
Mathematics 150a, b, 260a	8
Physics 211a, b, c	8
Construction 101, 102, 201, 202, 264, 301, 302, 321, 331, 332, 341, 351, 352, 375, 403, 411, 451, 475	63
Electives	12
Total	192

SAMPLE PROGRAM: CONSTRUCTION

FRESHMAN YEAR

FALL		WINTER		SPRING	
MSCS 150a	- 4	MSCS 150b	- 4	MSCS 260a	- 4
GSK 101	- 4	GSK 102	- 4	GSK 123	- 4
Chem 110a	- 4	GHA Elec.	- 4	GSS Elec.	- 4
Const 101	- 1	Engr 101a	- 2	Const 102	- 4
GSS Elec.	- 4	GSS Elec.	- 4		
	17		18		16

SOPHOMORE YEAR

FALL		WINTER		SPRING	
Phys 211a	- 4	Phys 211b	- 4	Phys 211c	- 4
Econ 201	- 4	Acct 201	- 4	Acct 202	- 4
Const 201	- 4	Const 202	- 4	Engr 263	- 3
GHA Elec.	- 4	Engr 260a	- 4	Engr 270	- 4
	16		16		16

JUNIOR YEAR

FALL		WINTER		SPRING	
Const 264	- 4	Const 302	- 4	Const 321	- 3
Const 301	- 4	Const 331	- 3	Const 351	- 4

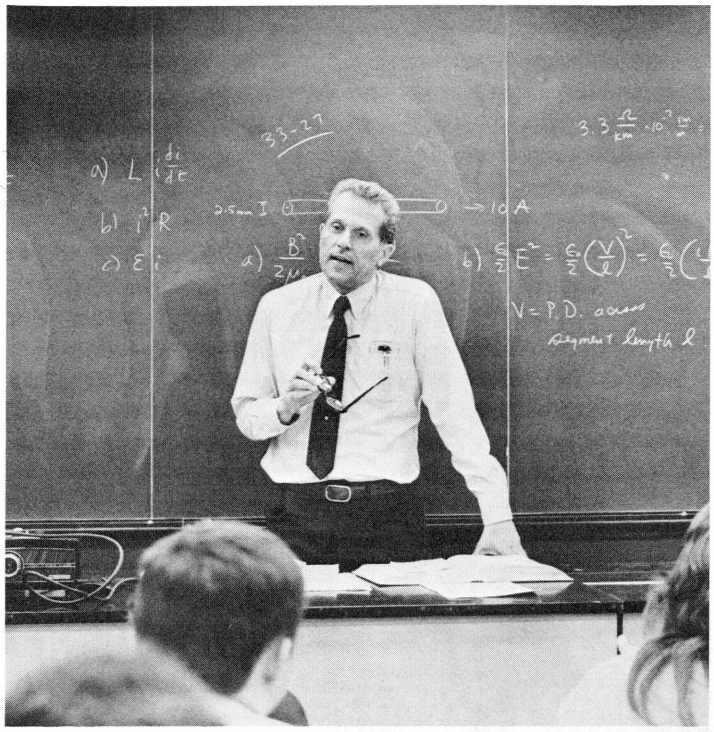
Const 332	- 3	Const 352	- 4	Const 411	- 4
FIN 320	- 4	Const 341	- 4	Const 375	- 2
				GHA Elec.	- 4
	15		15		17

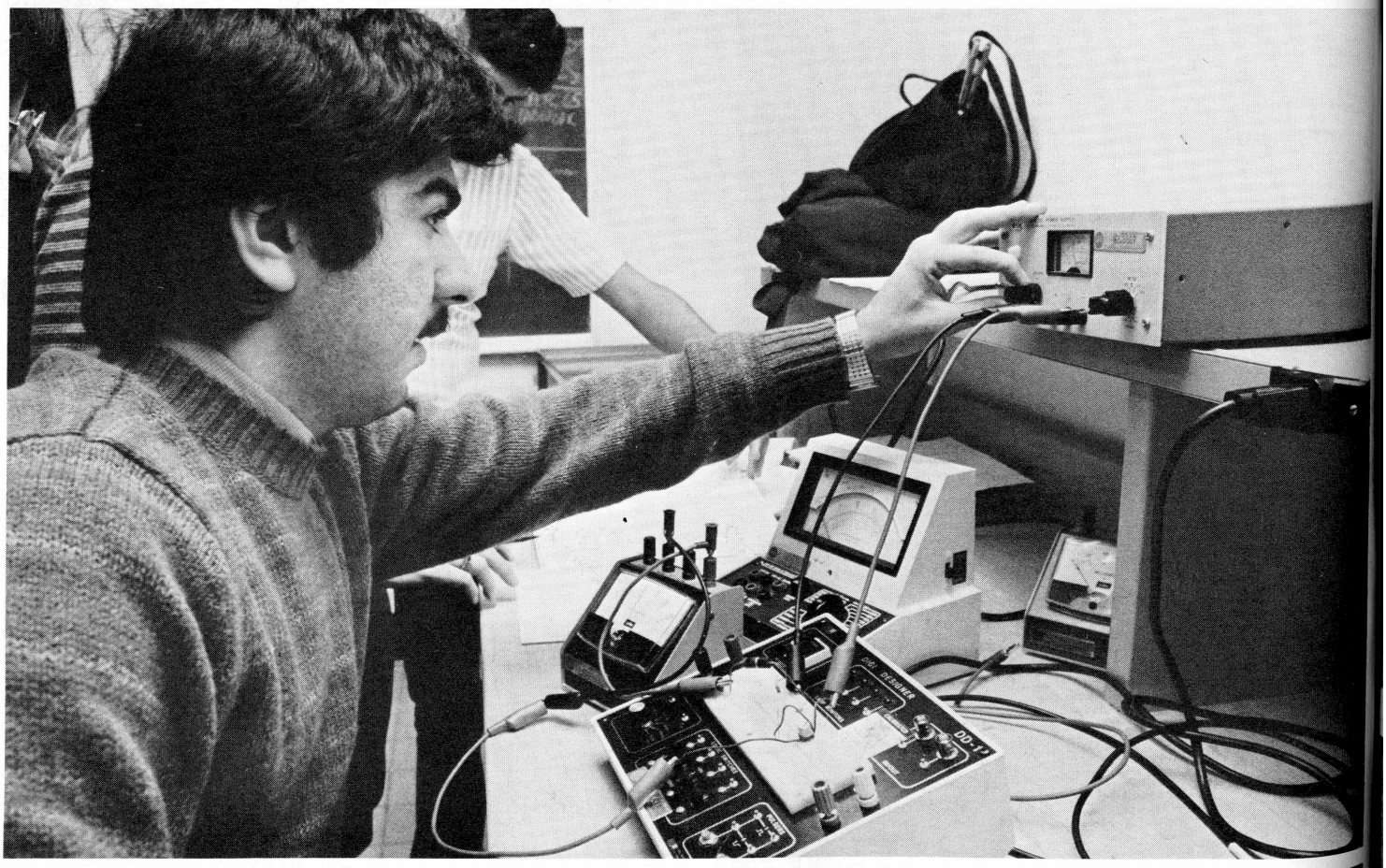
SENIOR YEAR

FALL		WINTER		SPRING	
Mgmt 290	- 4	Const 475	- 3	Const 403	- 4
Econ 331	- 4	Mgmt 242	- 4	Const 451	- 4
GHA Elec.	- 4	Elec.[2]	- 4	GIS Elec	- 4
Elec.[2]	- 4	GSK Elec.	- 4	Elec.[2]	- 4
	16		15		16

[1]The University requirement for General Studies is 60 hours. This requirement is met by substituting Chemistry 110a for GSM 120, Economics 201 for GSS 150, and Physics 211a for GSM 101.

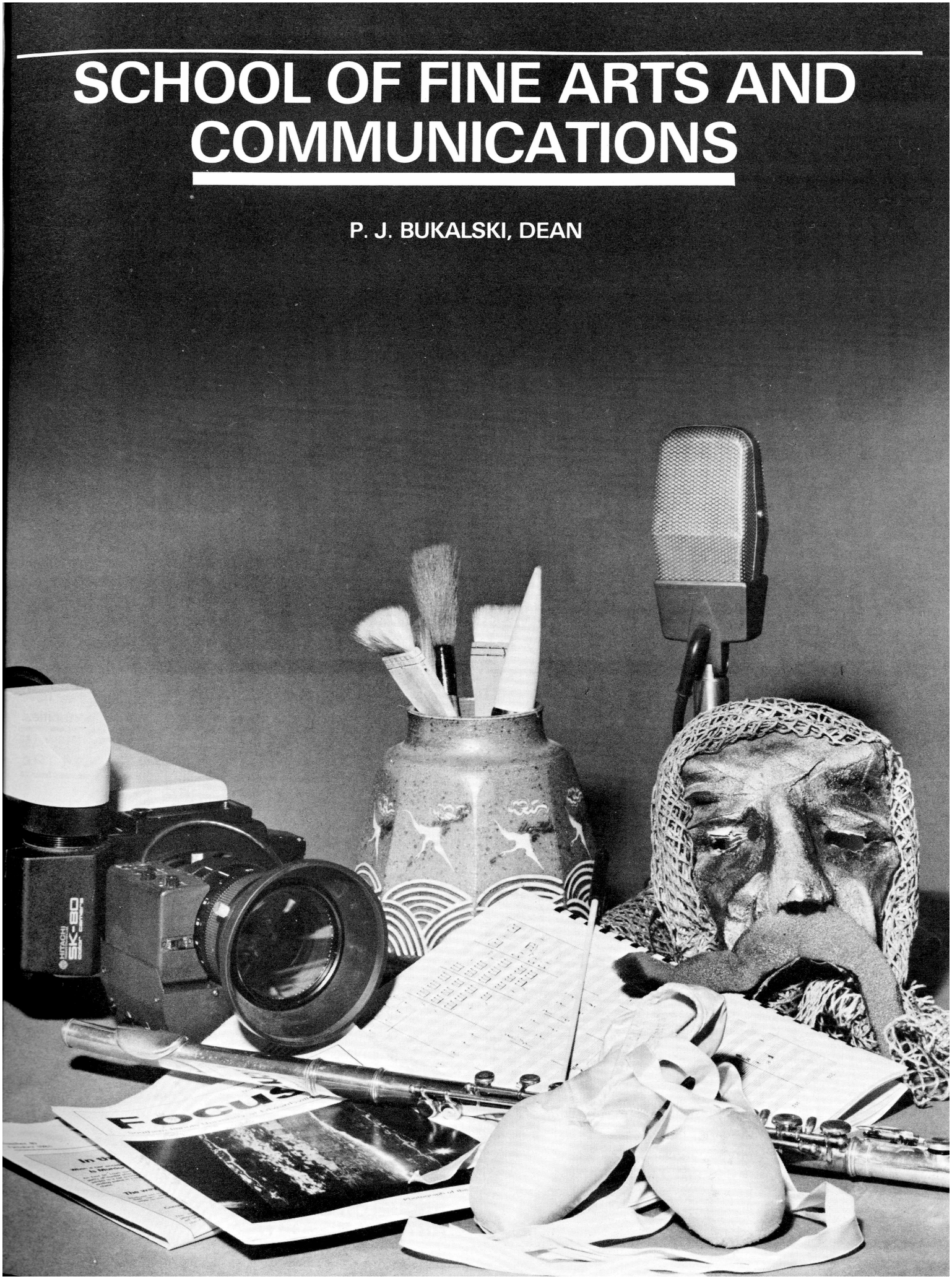
[2]Electives should be chosen in accordance with policies listed in the student information handbook.





SCHOOL OF FINE ARTS AND COMMUNICATIONS

P. J. BUKALSKI, DEAN



The mission of the School of Fine Arts and Communications is to broaden and intensify experiences in the fine and communicative arts and sciences; to impart to all University students an awareness of the cultural values of the arts; to provide facilities for the creative and scholarly pursuit of the arts; and to offer specialized courses of study to serve the ends of liberal and professional education. The visual and performing arts are emphasized through exhibitions, concerts, lectures, and theatrical productions. More specifically the goals are:

1. To provide preprofessional and professional training in art and design, music, dance, theater, speech communication, speech pathology and audiology, radio, television, and journalism.
2. To provide teacher preparation for the profession of teaching art, music, speech communication, theater, dance, and mass communications.
3. To serve as the center of the cultural resources for the campus and to be the cultural and performing arts center of southwestern Illinois.
4. To provide general education in art, music, speech communication, theater, dance, and mass communications.
5. To foster creative work, scholarship, research, experimentation, and publication.
6. To provide services to the University and communities through such activities and instructional laboratories as Broadcasting Service, Speech Language and Hearing Center, University Theater, bands, choruses, orchestras, quartets, and recitals.

Students may wish to obtain additional information from the appropriate sections of this catalog.

ART AND DESIGN

Professors:
Davis, D. F. (Chairperson), Hampton, P. J., Huntley, D. C., Malone, R. R., Richardson, J. A., Smith, M. J., Weber, J. A.

Associate Professors:
Anderson, D. J., Daw, L. M., Decoteau, P. H., Dresang, P. A., Gipe, T. D., Ringering, D. L., Smith, J. E.

Assistant Professors:
Colby, T. B., Weaver, R. C.

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 with an option in Studio Art or, in conjunction with the School of Education, Art Education.

Undergraduate offerings in art include introductory and specialized courses in drawing, painting, printmaking, sculpture, ceramics, fiber/fabric, graphic design, photography, jewelry, multimedia, art historical studies, and professional preparation for the future teacher of art at the elementary or secondary levels.

To augment the academic program, the Department of Art and Design has a comprehensive program in the visual arts which includes a Visiting Artist Program and an Exhibitions Program. These programs provide an opportunity for both general students and art majors to become acquainted with well-known artists and artworks which are brought to the University.

Students who have graduated from accredited high schools are admitted to the B.A., B.S., and B.F.A. programs. A grade point average of 3.40 is necessary for those students seeking admission to the teacher education program in the B.S. program in both the School of Fine Arts and Communications and the School of Education. Admission to the B.F.A. program is by portfolio examination with applications accepted early each quarter. Students must have a cumulative grade point average of 3.50 on all work and a 4.00 grade point average in studio courses for admission to the program. Instructions for B.F.A. application are available from the office of the undergraduate adviser at the Wagner Complex.

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; and museums, galleries, and other cultural institutions. The undergraduate programs in art also prepare students for graduate study in their fields of specialization. The quality of the undergraduate programs has been such that the graduates of the Department of Art and Design at Southern Illinois University at Edwardsville have been able to compete very successfully for career opportunities.

DEGREE REQUIREMENTS

BACHELOR OF ARTS DEGREE, ART (STUDIO ART)

General Studies Requirements (Waive GHA-8)	60
Requirements for Major in Art	96
Foreign Language	12
Art 100 (15), 202 (15), 225 (9)	39
18 hours from at least five of the following: Art 302, 305, 310, 312, 331, 341, 358, 377, 384, 386, 393	18
Art history	6
15 additional hours from one of the following studio areas: painting, drawing, printmaking, sculpture, ceramics, fiber/fabric, jewelry, photography, graphic design, or multi-media	15
Art electives	6
Electives or Minor	36
Total	192

DEGREE REQUIREMENTS

BACHELOR OF ARTS DEGREE, ART (ART HISTORY)

General Studies Requirements (Waive GHA-8) 60
Requirements for Major in Art History 75
Foreign Language 12
Art 225 (9) 9
54 hours from the following: GHA 310, 311, 312, 315, 316, 317, Art 424, 447, 448, 449, 469, 481, 483 54
Electives and/or Minor 57
(Majors are urged to elect Philosophy 360 and Anthropology 305 plus courses in non-visual arts and history. Studio work is encouraged and additional language study advised.)
Total 192

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE DEGREE, ART (STUDIO ART)

General Studies Requirements (Waive GHA-8) 60
Requirements for Major in Art 94
Art 100 (15), 202 (18), 225 (9) 42
18 hours from at least five of the following: Art 302, 305, 310, 312, 331, 341, 358, 377, 384, 386, 393 18
Art history elective 3
Art education courses 289, 300a, b, c, d, 365 ... 19
Art electives 12
Professional Education Electives 38
(Includes: Ed. 305; Ed. El. 351b; Ed. Fd. 355; Ed. S. 215, 352; Sp. Ed. 414.)
Total 192

BACHELOR OF FINE ARTS DEGREE, ART AND DESIGN

Admission to the B.F.A. degree program is by portfolio only. Candidates for the B.F.A. must maintain a cumulative grade point average of 3.50 on all work and a 4.00 grade point average in studio courses to remain in the program.

General Studies Requirements 32
GSK 12
GSS 8
GSM 8
GHA 4
Requirements for Major in Art 118
Art 100 (15), 202 (21), 304 (1), 331 (3), 441 (3), 405 (3), 15 hours from at least five of the following: Art 302, 305, 310, 358, 377, 384, 386, 393 61
Major medium (300 and 400 level) 21
Minor medium (300 and 400 level) 12
Art history (200, 300 and 400 level) 18
Thesis (499) 1-6
Academic Electives[1] 42
Total 192

[1]Art history courses are not included in these hours. Work in foreign languages is strongly recommended.

BACHELOR OF FINE ARTS TEACHER CERTIFICATION

Students desiring secondary or broad field teaching certification with the Bachelor of Fine Arts may do so in consultation with art education advisers. Art education and professional education courses needed for certification can be taken under the area of academic electives. However, students pursuing the B.F.A. with certification may exceed the 192-hour degree requirements.

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE DEGREE, ART EDUCATION, SCHOOL OF EDUCATION

General Studies Requirements 60
Requirements for Major in Art Education 70
Art 100 (15), 202 (15) (a, b, c, d, required; elect e, f, g, or h), 225(9) 39
18 hours from at least five of the following: Art 302, 305, 310, 312, 341, 358, 377, 384, 386, 393 18
Art history 3
Art education courses 289, 300d, 365 10
Art 300a, b, c (for K14 certification) ..... (9)
Professional Education Courses 33
See Secondary Education requirements
Electives 29
Total 192

During the last quarter of the junior year or first quarter of the senior year students may petition the art faculty to grant them the privilege of an exhibition of their work. Such an exhibit may be comprised of the work of an individual or may be comprised of the works of several seniors. Participation in an exhibition is not required for graduation from Southern Illinois University at Edwardsville; permission to participate is extended in recognition of outstanding artistic ability.

MINOR REQUIREMENTS

Students desiring a minor in art should take the following courses: Basic Studio, Art 100 (15); Intermediate Studio, Art 202 (15) and History of World Art, Art 225 (6) for a total of 36 hours.

Students desiring a minor in art history should take the following courses: History of World Art, Art 225 (9) plus 18 additional hours from 400 level art history courses or 300 level GHA courses in art history for a total of 27 hours.

MASS COMMUNICATIONS

Professors:
Regnell, J. A. (Chairperson), Rider, J. R., Shaheen, J. G., Ward, W. G., Winter, K.

Associate Professors:
Bukalski, P. J. (Dean, School of Fine Arts and Communications), Killenberg, G. M., Regnell, B. C.

Assistant Professor:
Maynard, R.

Instructor:
Baker, N.

Visiting Lecturer:
Landers, J.K.

The professional program leading to the Bachelor of Science degree in mass communications (television/radio, journalism) rests on three general beliefs about education:

1. The liberal education of students, primarily in the liberal arts and sciences, is fundamental to future success in the media and should constitute the major portion of their college experiences.
2. Students need to become proficient enough in the technical and production aspects of the media and knowledgeable enough in the management, sales, and operational aspects in order to enter the field of their choice as valuable employees after graduation.
3. Liberal education and media experience and knowledge should be integrated to insure maximum opportunity for success as potential leaders in the media.

Students in mass communications are assisted in developing professional standards of performance and decision-making styles through a program of student internships offered in cooperation with the media in the Metro-East and St.Louis areas.

Students may select a specialization in television/radio or in journalism. In either program a minor outside the Department of Mass Communications is required, and students are encouraged to consider a second major field if their schedules permit. Students with second majors are not required to have a minor. Students majoring in mass communications are assigned an adviser who assists them until completion of the program. Although a core of course work is required of students regardless of major, each program is designed to assist students in attaining their career aspirations.

Core requirements in journalism are 103, 201a, 201b, 210a, 210b or 212, 245 or 345 or 346, 303a, 303b, 320 or 321, 340, and 410. Electives must be taken from other mass communications offerings to total 54 hours of departmental courses.

Core requirements in television/radio are 100, 200, 201, 230, 252, 400, 402 or 403, and 408. Electives must be taken from other mass communications offerings to total 53 hours in departmental courses.

The programs in the Department of Mass Communications are accredited by the American Council on Education in Journalism and Mass Communications. Departmental programs are well-respected in media and business circles for their professional quality; graduates have risen to responsible positions in the mass media in Illinois and metropolitan St.Louis as well as in many major markets across the country.

For more detailed information regarding the programs please contact the Chairperson of the Department of Mass Communications.

CAREER OPPORTUNITIES

A degree in mass communications will assist students in seeking employment in television and radio stations, in newspapers, magazines, industrial and corporate publications, in advertising agencies, teaching, and production agencies, and in photography, film work, cable television, and public broadcasting. Mass communications majors are increasingly in demand for public relations and public information positions and low-technology or closed circuit applications of television in business and industry.

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE DEGREE, MASS COMMUNICATIONS (TELEVISION/RADIO)

General Studies Requirements 60
Requirements for Major in Mass Communications 53
Television/Radio 100, 200, 201, 230, 252, 400, 402 or 403, 408 33
Television/Radio electives (five of the following 4-hour courses: 202, 301, 302, 356, 359, 390, 401, 404, 405, 406, 407, 410, 450, 466) 20
Minor Outside Mass Communications 29
(A double major is recommended.)
Electives 50
(May include a minor in journalism.)

Total 192

MINOR REQUIREMENTS IN TELEVISION/RADIO

A minor in television/radio is possible by taking the following courses: 100, 200, 201, 230, 252, 401 for a total of 25 hours.

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE DEGREE, MASS COMMUNICATIONS (JOURNALISM)

General Studies Requirements 60
Requirements for Major in Mass Communications 53
Journalism 103, 201, 202, 210, 321 or 391 or second photography course, 303a, b, 320 or 481, 344 or 345 or 346, 340, 410 45
Journalism, selected television/radio, and electives from other schools on campus as approved by the Department of Mass Communications 8
Minor Outside Mass Communications 28
(A double major is recommended.)
General Electives
(or additional minor in television/radio) 51

Total 192

REQUIREMENTS FOR A MINOR IN JOURNALISM

A minor in journalism consists of 103, 201, 210a, 320, 340, 345, and 402 for a minimum of 28 hours or alternate courses as approved by the director of journalism.

MASS COMMUNICATIONS IN A DEMOCRATIC SOCIETY MINOR

This minor is intended to be useful to those students who do not wish to pursue a professional minor in the media. It is suggested that this sequence might be particularly valuable to students majoring in political science, government, or history. Requirements for the minor are as follows: one from Television/Radio 100 or Journalism 101; in addition Television/Radio 200, 400, 401 407, 450 and Journalism 245, 345. A total of 31-32 hours must be taken.

MUSIC

Professors:
Claudson, W. D., Haley, J. A., Joseph, W. A., Kendall, J. D., Kerr, R. S., Lampe, M. M., Mellott, G. K., Perry, R. K., Pival, J. E., Schieber, R. W., Tarwater, W. H., Turner, S. T., Van Camp, L. W., Williamson, R. N., Woodard, J. P.

Associate Professors:
Brown, S. M., Loucks, D. G. (Chairperson), Rogers, K. C., Scott, J. A., Stamps, D. B.

Assistant Professor:
LaReau, M. A.

Assistants in Music:
Gross, J. G., Perry, L. W.

The faculty in the Department of Music believe that students at the undergraduate level should receive a comprehensive musical background which includes individual performance, ensemble performance, scholarly studies in music theory and history/literature, teacher preparation (if applicable), and a sound cultural background through the General Studies program. The ultimate aim is to develop skilled and informed musicians, able scholars and/or competent and enthusiastic teachers.

An accredited member of the National Association of Schools of Music, the Department of Music offers the Bachelor of Arts Degree with a major in Music and the Bachelor of Music Degree with specializations in Performance, Music Education, Theory/Compositon, and Studio Music and Jazz Performance. The B.A. degree is designed for students who wish to specialize in music within a liberal arts curriculum. It may also serve as the foundation for advanced studies in music. The Bachelor of Music degree is a curriculum designed to prepare students for professional careers in music and/or advanced graduate studies in music.

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 Bi-State metropolitan area.

CAREER OPPORTUNITIES

A degree in music can 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 in general music, and/or directing orchestra, band, or chorus; playing professionally in symphony orchestras, studio orchestras, jazz groups, choruses, solo recitals, opera, oratorio

and musical comedy; and composing and arranging. Additional opportunities may exist in publishing music, music management and sales, music criticism, music librarianship, and private studio teaching.

ADMISSION AND ADVISEMENT

Students seeking admission to any music major degree program must perform an acceptable audition prior to enrollment. Students are not permitted to register for private lessons until the audition requirement is completed. To schedule an audition, please write or call the Music Department office.

Students desiring to pursue any of the music major programs are advised to file the Declaration of Major upon entry to the University and to consult a music adviser prior to registration. Students are issued the appropriate curriculum guide and Music Student Handbook.

DEGREE REQUIREMENTS

BACHELOR OF ARTS DEGREE, MUSIC

These courses are for students who wish to specialize in music as part of their general cultural education. They may also be taken as background for advanced studies in music.

General Studies Requirements (Waive GHA-8)	60
Requirements for Major in Music	69
Foreign Language	12
GHA 230	(4)
Music 105(12), 205(12), and electives	39
Music private applied (2 hours per quarter)	12
Music major ensemble	6
Minor Concentration	24
Electives	39
Total	192

DEGREE REQUIREMENTS

BACHELOR OF MUSIC DEGREE (MUSIC PERFORMANCE)

General Studies Requirements (Waive GHA-8)	60
Requirements for Major in Music	118-126[1]
Foreign Language	12[1]
Music 105 (12), 205 (12), 309a, 312a, 318a, 326a, 442a	39[2]
Music 357	9
Music, private applied (major instrument)	40-48
Music, major ensemble (1 hour per quarter)	12[3]
Music, class piano, or secondary instrument/ voice	6
Electives	14-9
Total	192-195

[1]Students concentrating in voice 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.
[2]Students with a specialization in piano may substitute 9 hours in Music 413 and/or 461 in lieu of 309a, 312a, and 442a.
[3]Students with a specialization in piano may substitute a maximum of 6 hours in 365 as partial fulfillment of this requirement.

DEGREE REQUIREMENTS

BACHELOR OF MUSIC DEGREE (JAZZ PERFORMANCE)

General Studies Requirements (Waive GHA-8)	60
Requirements for Major in Music	117-147
Music 105 (12), 205 (12), 318a (3), 326a (3), 357c (3)	33
Music 330 (6), 337 (4), 409 (6), 430 (6) 436 (3)	25
Music, private applied (major instrument)	36-42
Music, major ensemble (1-2 hours per quarter)	18-24
Music, class piano, jazz piano and/or proficiency, secondary instrument/ voice	0- 9
Electives	5-14
Total	192-207

DEGREE REQUIREMENTS

BACHELOR OF MUSIC DEGREE (MUSIC EDUCATION)

General Studies Requirements (Waive GHA-8)	60
Requirements for Major in Music	77-96
Music 105 (12), 205 (12), 309a, 318a, b, 326a	36
Music 357	9
Music, private applied (major instrument)	20-24
Music, major ensemble (1 hour per quarter)	12
Piano proficiency or class	0-6[4]
Voice proficiency or class	0-3[4]
Music: class strings, woodwinds brass — 2 hours in each area	0-6[4]
One year of French or German is recommended for the student with a choral emphasis in music education.	
Professional Education Requirements	37
GSS 370	(4)[5]
Foundations of Education 355	4
Music 301	9
Education 305	4
Special Education 400	4
Elementary Education 351c, Secondary Education 352o	12
Electives	18-8
Total	192-19

[4]Study on a secondary instrument and/or voice is possible if requirements for class instruction are met by proficiency.
[5]Secondary Education 215 may be substituted.

Before being approved for student teaching, students must satisfy the course of study and proficiency prerequisites as established by the Music Department.

DEGREE REQUIREMENTS

BACHELOR OF MUSIC DEGREE (THEORY/COMPOSITION)

General Studies Requirements (Waive GHA-8)	60
Requirements for Major in Music	117
Music 105 (12), 205 (12), 309 (9), 312 (9), 326 (9), 357 (9), 442 (9)	69
Music, private applied	18[6]
Music, major ensemble	12
Music electives	18[7]
Electives	15
Total	192

[6]Private applied piano until proficiency is satisfied; thereafter any instrument or voice. Students are expected to enroll for applied study for a total of nine quarters.
[7]A program of electives must be approved by the theory committee. Students with emphasis in composition normally elect 412-9; those with emphasis in music theory normally elect 481.

Students with specialization in theory/composition include one year each of French and German. In their fourth year degree candidates must present to the Music Department either a composition or a written thesis in music theory as evidence of their achievement.

MINOR REQUIREMENTS

Students wishing to minor in music must consult with a designated adviser in order to develop an approved program before beginning course work. Students minoring in music must take at least one course in music theory and one course in music literature, as approved by the adviser. Music 200 and GHA 136 cannot be applied toward completion of the minor requirements. In order to secure the minor in music, students must complete a total of 30 hours in approved music or General Studies courses with an overall average of 3.60 or better.

Music minors are expected to build a concentration in one particular area of music; a minimum of 9 hours in any one area constitutes a concentration. The following areas of concentration are suggested: Performance (solo and ensemble); Theory; History/Literature; Jazz; 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.

SPEECH COMMUNICATION

Professors:
Anderson, R. O., Hawkins, R. B., Munshaw, J. A., Salden, D. R. (Chairperson), Stoppe, R. L., Valley, D. B., White, H. L. (Acting Associate Vice President)

Associate Professors:
Goehe, P. A., Graebe, A. M., McClearey, K. E.

Speech communication professionals have a number of important interests. They focus on understanding and improving the ways people interact nonverbally and through the spoken word—sharing ideas and feelings—in many different relationships and contexts. They often strive to understand their formal learning, and to seek increased competence in their relationships.

Speech communication at SIUE is the extension of a discipline that began with the theories and practices of great orators and teachers of persuasive speaking in Athens and Rome at the dawn of western civilization. Courses focus on two-person interaction (from casual talk in friendships to interviews in formal work situations); small group interaction (from family communication patterns to task-oriented talk in work groups); speaker-audience interaction (from impromptu remarks at community meetings to formal rhetoric in national politics); and interaction in large communication systems (from confrontations between different subcultures to negotiation and conflict resolution in agencies and corporations). The Department encourages students to develop richer theories, more precise research tools, and better skills to help explain and improve the complex communication patterns.

Students work closely with the faculty. In teaching, advising, and informal interactions, the department reduces traditional barriers between professors and students and maintains an ongoing, open community of persons at SIUE who cooperate in studying and improving human communication. Initially speech communication majors and minors are advised by the Director of the Undergraduate Program. After taking a few courses, students are asked to select permanent advisers who will assist them in planning their programs. Students interested in speech communication are encouraged to contact the Department at (618) 692-3090.

CAREER OPPORTUNITIES

Employers in business and industry, governmental agencies, educational systems, and churches and other community resource centers recognize the need for more effective communication. As a result, there are increasing job opportunities for graduates trained in speech communication. Graduates often have several career choices and seldom find themselves restricted to positions with traditional, tightly defined job descriptions. Some speech communication graduates find rewarding careers as teachers and administrators in elementary or secondary schools. Other graduates become specialists and consultants in organizational communication, working in either the public or private sector. Some graduates select roles as trainers and facilitators in human relations and development programs while others secure positions in management, public relations, sales, and government.

The department is committed to helping undergraduate

majors identify the kinds of jobs and work environments for which they are suited best and to helping them select minor, cognate, and elective courses to complement the speech communication major and prepare for that career.

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE DEGREE, SPEECH COMMUNICATION

General Studies Requirements (Waive GHA-8)	60
Requirements for Major in Speech Communication	48
Speech Communication 210, 301, 302b, 330, and 410	20
Electives in Speech Communication	28
Minor	24
Courses in Cognate Fields (other than student's minor, to be chosen at discretion of student and adviser)	12
Electives	48
Total	192

DEGREE REQUIREMENTS

BACHELOR OF ARTS DEGREE, SPEECH COMMUNICATION

Same as above plus twelve (12) hours of foreign language as part of the 48 elective hours.

Majors seeking certification for teaching must take the program outlined above, plus SpC 461, and meet the other minimum standards for certification under Secondary Education and those set forth by the Illinois State Board of Education. In addition to their academic responsibilities, students are expected to integrate campus and community speech communication-related activities and experiences. The communication practicum course, SpC 309, offers 1 to 8 hours of academic credit for these activities. SpC 489, an internship course, enables qualified juniors and seniors to gain professional experience in the career environments which they anticipate entering.

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE DEGREE, SPEECH COMMUNICATION, SCHOOL OF EDUCATION

Students seeking the Bachelor of Science degree offered by the School of Education must take the program outlined above for majors, including SpC 461, and meet current certification requirements as set forth by the Illinois Office of Education.

MINOR REQUIREMENTS

A 24-hour minor (30 hours for second teaching field) in speech communication is composed of any courses offered in the speech communication curriculum which students and their adviser decide best fit their academic and career interests. It is recommended that the minor include courses listed above as requirements for majors in speech communication. Students electing speech communication as a second teaching subject must include SpC 461. At the time they declare their minor or earlier, students should consult with the Director of the Undergraduate Program in Speech Communication.

General Studies courses are not applicable to the 24 hours necessary for a minor.

SPEECH PATHOLOGY AND AUDIOLOGY

Professors:
Carey, A. L., Kurtzrock, G. H., Lieblich, M., Maag, O. E., St. Onge, K. R., Taylor, J. S. (Chairperson)

Assistant Professor:
Engleman, D. A.

Instructors:
Harrison, J. M., Hoge, D. R.

The professions of speech pathology and audiology are devoted to serving the more than twenty million Americans with disordered communication. Speech-language pathologists study human communication, its normal development, and its disorders. Their responsibilities include the identification, evaluation, and remediation of individuals having communicative disorders. They also work toward the preventation of disorders of speech, hearing, and language through public education, early identification of problems, and research into the causes and treatment of disorders.

Audiologists are concerned with normal and defective hearing. Their responsibilities include the prevention of hearing loss and the identification and rehabilitation of those who have impaired hearing. Audiologists utilize tests and instruments to determine whether a hearing loss is present and then work in a variety of ways to assist clients in making the best use of residual hearing. Like speech and language pathologists, audiologists are concerned with research in the hearing process and hearing disorders.

In order to meet the standards established by the American Speech-Language-Hearing Association (ASHA), students wishing to pursue a career in either speech pathology or audiology must complete a master's degree. Students wishing to be certified by the State of Illinois must complete a master's degree in either speech pathology or audiology and participate in student teaching. Before registering for student teaching, students must secure written consent of the Speech Pathology and Audiology Department and must have completed GSS 370, Education 305, and Speech Pathology and Audiology 450. No minor concentration in Speech Pathology and Audiology is offered at the undergraduate level. Specific requirements and options must be approved by the Department.

The Department of Speech Pathology and Audiology has a faculty of nine, all of whom are certified as clinically competent by ASHA. The terminal program in speech pathology is accredited by the Education and Training Board of the Board of

Examiners in Speech-Language Pathology and Audiology of ASHA and entitled by the Illinois State Board of Education.

Students may enter the program after conferring with the chairperson of the department. Quarterly advisement is required. In order to complete the clinical portion of the program, students must maintain 3.50 grade point averages. Students desiring additional information should contact the Chairperson, Department of Speech Pathology and Audiology.

CAREER OPPORTUNITIES

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. A large number of graduates in speech-language pathology enter public school settings; there the mandate of state and federal legislation has made service delivery to all children with communicative disorders necessary. Currently, employment possibilities are bountiful. Some graduates establish private practices or affiliate with physicians.

DEGREE REQUIREMENTS

BACHELOR OF ARTS OR BACHELOR OF SCIENCE DEGREE, SPEECH PATHOLOGY AND AUDIOLOGY

General Studies Requirements (Waive GHA-8)[1]	60
Requirements in Speech Pathology and Audiology	54-60
Basic courses: Speech Pathology and Audiology 231, 303, 312, 320	16
Speech Pathology courses: 201, 441, and two of the following: 442, 443, 444, 445[2]	16
Audiology courses: Speech Pathology and Audiology 360, 461, 471	12
Clinical procedures and practices: Speech Pathology and Audiology 449, 469, 452	6-12
Optional courses: Speech Pathology and Audiology 450[3], 462, or approved elective	4
Requirements in Related Areas	12
Psychology 301, 305	8
Special Education 400	4
Requirements for Illinois Certification in Speech and Language Impaired	25-33
GSS 370	4
Education 305	4
Elementary Education 451	8-16
Foundations of Education 355	4
Health and Physical Education	5
Approved Electives	41-27
Students are encouraged to pursue a minor in a related field.	
Total	192

[1]Must include basic psychology.
[2]SpPA 442, 443, and 444 are requirement for student preparing to student teach.
[3]Required for Illinois Certification in Speech and Language Impaired.

Twelve hours of foreign language are required for the B.A. option.

THEATER AND DANCE

Professors:
Kluth, L. F., Vilhauer, W. W. (Chairperson)

Associate Professors:
Bukalski, P. J. (Dean, School of Fine Arts and Communications), Mackie, W. C., Sweezey, C. O., Tallant, A. M.

Assistant Professors:
Grivna, W. J., Jarrell, C., Shaul, K. J., Sill, D. J.

Assistant in Theater and Dance:
Lartonoix, P.

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 furnishes a liberal arts orientation for students of the University through General Studies courses and mainstage and experimental theater productions. Students majoring in theater or dance may elect any one of three possible specialization programs: performance emphasis, design and technical emphasis, or dance emphasis.

Practicum training studios enable students to learn the arts of theater and dance through instruction and participation in a series of major and minor presentations for class, campus, and community audiences through the Student Experimental Theater, the University Theater, and the Concert Dance Company.

All students desiring further information about work in theater and dance should contact the Theater and Dance office. Students must be advised by a member of the departmental faculty who will issue permit to enroll forms.

CAREER OPPORTUNITIES

An undergraduate degree in theater provides students with the necessary preprofessional and professional theater and dance training in acting, directing, dance, choreography, technical production, and design. Since professional theater and dance employment opportunities are very competitive and limited, career opportunities largely depend upon the graduate's initiative and artistic skills. In addition to providing background for entry into professional training schools, a degree in theater and dance also provides career opportunities in television, radio, and areas related to promotional work.

DEGREE REQUIREMENTS

BACHELOR OF ARTS OR BACHELOR OF SCIENCE DEGREE, THEATER

PERFORMANCE EMPHASIS

General Studies Requirements (Waive GHA-8) 60
Requirements for Major in Theater
(performance emphasis) 96
Theater 100a (8), 100q (12), 100v (4), 200a (8),
200m (2), 200q (2), 200u (8), 200v (4),
300a (8), 300b (4), 300m (4), 300r (4),
400r (4), 410a and b (8), 404a and b (8),
400a, p, r, u, or q (8) 96
Electives 36

Total 192

DESIGN AND TECHNICAL EMPHASIS

General Studies Requirements (Waive GHA-8) 60
Requirements for Major in Theater
(design and technical emphasis) 96
Theater 100a (4), 100d (4), 100l (4), 100s (4),
200c (4), 200d (4), 200k (2), 200l (4),
200m (2), 200q (2), 200s (4), 300c (4),
300d (4), 300m (4), 300r (4), 302 (4),
400w (4), 401a and b (8), 404a and b (8),
Art 100a (3), 100b (3), 100c (3), 100d (3),
100e (3), 202q (3) 96
Electives 36

Total 192

DANCE EMPHASIS

General Studies Requirements (Waive GHA-8) 60
Requirements for Major in Theater
(dance emphasis) 92
Theater 100h (4), 100u (4), 200h (4), 200n (4),
200t (8), 300h (4), 300o (4), 300t (12),
300z (2), 302 (4), 400e (4), 400h (12),
400o (4), 400t (12), 400z (2), 402 (4),
403 (4) 92
Theater Electives 4
Electives 36

Total 192

Students pursuing the Bachelor of Arts degree must complete 12 hours of foreign language.

MINOR REQUIREMENTS

A 40-hour minor in theater must be planned in consultation with the Chairperson of Theater and Dance prior to advisement.

University Theater and Musical Events

Students interested in information regarding University theater and musical events may wish to refer to the Student Activities and Services section of this catalog.

SCHOOL OF HUMANITIES

D. L. BUTLER, DEAN

Principles of LOGIC
Poirier • Vance
Volume One
TREASURY of PHILOSOPHY
FIFTH EDITION
VOLUME TWO

The School of Humanities offers B.A. degree programs in English, French, German, Spanish, and Philosophy, and specializations in English, French, German, and Spanish for students desiring a B.S. degree from the School of Education. The School offers minor concentrations in Creative Writing, French, German, Italian, Linguistics, Philosophy, Spanish and Russian; it also offers an Open English Minor.

The School of Humanities sponsors the Humanities Honors Program and publishes two periodicals — *Sou'wester,* a literary magazine of fiction and poetry, and *Papers on Language and Literature,* a journal of criticism. Please refer to the School of Humanities activities section of this catalog for additional information.

Undergraduate programs in the Humanities offer opportunities to enjoy, to examine, and to learn from the most meaningful of human expressions. In studying language, literature, and philosophy, students learn to think more critically and powerfully, they develop the ability to write more effectively, and they grow to appreciate philosophical and imaginative literature more fully. Preparation in the Humanities provides knowledge and skills essential for careers and professions which demand intellectual agility, cultural awareness, and highly-developed communications skills. Such preparation also produces highly qualified candidates for graduate and professional schools.

The School offers M.A. degrees in English and Philosophy. Students seeking the M.A. in English may specialize in English and American Literature, Linguistics, Preparation for Junior College English Teaching, or American Studies. M.A. candidates in Philosophy may select a course of general study or may specialize in Women's Studies.

ENGLISH LANGUAGE AND LITERATURE

Professors:
Ades, J. I., Bailey, D. S., Duncan, R. W., Gaston, P. L. (Acting Director of Summer School), Havens, D. F., Love, T. R., Oldani, J. L., Revard, S. P., Richardson, B. H., Slattery, W. C., Spurgeon D. A., Sullivan, A. D., Zanger, J.

Associate Professors:
Bosse, R. B., Butler, D. L. (Dean, School of Humanities), Collins, J. D., Funkhouser, L. K., Graham, A. E., Kropp, L., Lawrence, B. J., Pennell, J. C., Schmidt, B. Q.

Assistant Professors:
Kittrell, J. (Chairperson), Meyer, W. C., O'Gorman, G. J., Robbins, F. W., Stanley, R. G., Ziegler, R. J.

Instructor:
Violette, P. E.

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 assimulate knowledge crucial to technological and computer based capabilities.

CAREER OPPORTUNITIES

Students majoring in English are well prepared for graduate and professional studies in business, law and medicine. In addition, they may find career opportunities in public relations, journalism, teaching, consulting and editing—particularly when an English major is combined with a major or significant course work in Art and Design, Mass Communication or Speech Communication. Advertising agencies, book publishers, and institutions such as universities, hospitals, major corporations, and federal agencies which 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 competitive, students who can express themselves clearly and document their ideas through careful research will receive careful consideration from potential employers.

Grade Policy

Students must maintain a C average in all English courses accepted toward a degree.

UNDERGRADUATE HANDBOOK

Students considering a major or minor in English may obtain the Undergraduate Handbook for English Majors and Minors in the English department office.

DEGREE REQUIREMENTS

BACHELOR OF ARTS, ENGLISH — GENERAL PLAN

The major consists of 48 hours in English.

General Studies Requirements	60
Requirements for Major in English	48
Language Systems (370, 371, 400, 402, 403)	4
Writing (325, 392, 393, 490, 492, 493)	4
Major Authors (404, 471a,b, 473)	4
Surveys (302a,b,c, 309a,b)	12
Electives in English (300-499)	24
Foreign Language (one year of same language)	12
Free Electives (under the General Studies Program)	12
Minor	24-28
Additional Electives	36-32
Total	192

Of the 48 hours required in English courses, at least 16 must be

in 400-level courses. At least 12 of these 48 must be in English literature courses, and at least 8 of these 48 hours must be in American Literature courses. Students must maintain a C average in all English courses accepted toward a degree.

DEGREE REQUIREMENTS

BACHELOR OF ARTS, ENGLISH — PRE-PROFESSIONAL PLAN

English majors may choose to enroll in the pre-professional B.A. degree program. This option is strongly recommended for those who anticipate graduate or professional education. The requirements are the same as for the B.A. in English except that two years of a foreign language are required, and that students must take English 301. Students are encouraged to take these courses early in their careers. Thus, English electives are reduced by 4 hours, and additional electives are reduced by 12 hours.

General Studies Requirements 60
Requirements for Major in English 48
- Language Systems (370, 371, 400, 402, 403) 4
- Writing (325, 392, 393, 490, 492, 493) 4
- Major Authors (404, 471a,b, 473) 4
- Surveys (302a,b,c, 309a,b) 12
- Criticism (301) 4
- Electives in English 20

Foreign Languages (two years of same language) 24
Free Electives (under the General Studies Program) 12
Minor 24-28
Additional Electives 24-20

Total 192

Of the 48 hours required in English courses, at least 16 must be in 400-level courses. At least 12 of these 48 must be in English literature courses, and at least 8 of these 48 hours must be in American Literature courses. Students must maintain a C average in all English courses accepted toward a degree.

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE DEGREE, ENGLISH, SCHOOL OF EDUCATION

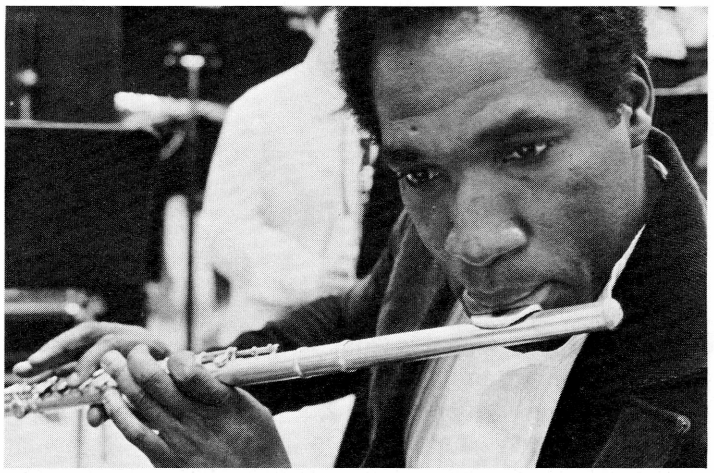
General Studies Requirements 60
General Studies Courses for English Majors 8
- Student should select two courses from this list: GHA101, 202, 203, 204, 205, 206, 207, 209, 303, 305, 306, 307, 308, 345a,b

Requirements for Major in English 52
- A. Language Systems 8
  369, 370, 371, 400, 402, 403 (one course must be a grammar course—369, 371, or 400)
- B. Expression and Analysis 8
  301, 325, 392, 393, 418, 490 (required), 492, 493, 495
- C. Literature (at least one course must be in American literature and one in English literature) 24
- D. Teacher Preparation 485 (required) 4
- E. Electives in English 8

Minor of Approved Supporting Courses 28
Professional Education Courses (see Secondary Education requirements) 37
Electives 12

Total 197

Of the 52 hours required in English courses, at least 24 must be 400-level courses. Students must maintain a C average in all English courses accepted toward a degree. Students, in consultation with the Undergraduate Adviser, may use the 28 hours of approved supporting courses to (a) minor in another subject, (b) take additional courses in English, or (c) take courses satisfying State requirements for certification in the fields of speech, journalism, reading, or other appropriate fields.



OPEN MINOR REQUIREMENTS

A 24-hour open minor in English includes courses at the 300 level and above. Courses, of which there must be at least two from the 400 level, should be selected with the approval of the students' advisers and in consultation with the English Department Undergraduate Adviser.

LINGUISTICS MINOR REQUIREMENTS

The minor in linguistics requires a minimum of 24 hours, usually consisting of at least six of the following 300- and 400-level linguistics courses: English 370, 371, 400, 402, 403, 405a,b, 406, 407, 418, and 488a,b. However, students may elect to substitute a maximum of 8 hours from the following courses: English 404, 421; Greek 101, 102, 103, 201, 202, 203; Latin 101, 102, 103, 201, 202, 203. Students should select at least one course in each of the following: phonology (370, 405a), syntax (371, 400, 405b), and historical change (403, 404, 406, 407, 421). Students who have a major in English may have a minor in linguistics.

CREATIVE WRITING REQUIREMENTS

The minor in creative writing requires a minimum of 24 hours. Students must choose one of the following programs from the primary sequence: Fiction (English 392, 492, 498) or Poetry (English 393, 493, 498). Elective courses within the minor in creative writing include Television/Radio 359, English 490, 494, 4 additional hours of 498, any 400-level course in literature, and any 392, 393, 492, or 493 course that is outside the chosen program. A more complete description of the creative writing minor can be obtained at the English office or from the Creative Writing Adviser.

Students who satisfy the Creative Writing minor requirements do not have to fulfill the four-hour Writing requirement for the B.A. major. The Adviser can waive that requirement, and the four hours can be used for an elective.

FOREIGN LANGUAGES AND LITERATURE

Professors:
Allsup, G. D., Francis, C. W., Osiek, B. T.

Associate Professors:
Griffen, T. D., Romani, D. L., Zaytzeff, V. (Chairperson)

Assistant Professor:
Cassanelli, R.

The Department of Foreign Languages and Literature offers the Bachelor of Arts degree in Humanities with concentrations in French, German, and Spanish languages and literatures. The Department also offers minor concentrations in these languages and in Italian and Russian.

The major concentration offers the opportunity to learn to understand, speak, read, and write a foreign language at a level necessary for gaining an understanding and knowledge of the people who use the language. Foreign language fluency also provides access to foreign literature, culture, and civilization. Proficiency in language skills may enhance students' opportunities in various professions, e.g. business, government, science, mass communications, law, arts education, and health.

It is recommended that students who choose a language major also declare an additional major or minor concentration in another discipline.

CAREER OPPORTUNITIES

Fluency in a foreign language can provide career opportunities in industry and government service. The demand is increasing for teachers of foreign languages, for translators, and for interpreters. The study of languages as support for another field of study is important for vocal music students whose disciplines have terminology derived from French and German and for students in literature, philosophy and history who often find primary and secondary sources written in languages other than English. As the percentage of United States residents who are not native speakers of English increases, persons in the professions and in public service will find fluency in a second language invaluable in serving clients.

DEGREE REQUIREMENTS

BACHELOR OF ARTS DEGREE, FOREIGN LANGUAGES AND LITERATURE

Foreign Language Option

General Studies Requirements (Waive GHA-8)	60
Requirements for Major in a Foreign Language	48-50
203; 301; 302; 303; 351; 352; 353	28
Electives beyond 203 in a foreign language (and culture)	20-22
Minor Requirements	28
203; 301; 302; 303; 351; 352; 353	28
Electives	56-54
Total	192

For both 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.

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE DEGREE, FOREIGN LANGUAGES AND LITERATURE, SCHOOL OF EDUCATION

For this degree, the requirements for a major in foreign languages are 42 hours (exclusive of elementary foreign language courses and elementary education major courses) in a language plus one English and one history course numbered above 299. See Secondary Education requirements.

MINOR REQUIREMENTS

A minor consists of 24 hours (exclusive of elementary level) in a language.

PHILOSOPHICAL STUDIES

Professors:
Barker, J. A., Broyer, J. A., Corr, C. A., Glossop, R. J., Linden, G. W., Runkle, G. J. T., Ruth, S.

Associate Professors:
Danley, J. R., Emblom, W. J., Hamrick, W. S., Hudlin, E., Keene, C. A., Kim, S-K., Lawrence, E. G., Nabe, C. M., Paxson, T. D., Pletcher, G. K. (Chairperson), Simons, M. A., Wolf, R. G.

Philosophy is the attempt to think carefully and critically about the nature of the world, the significance of life, and what goals we should pursue both as individuals and as a society. Philosophers consider such questions as: What is the nature and what are the limits of the power that society can

legitimately exercise 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 relation to the world? How do we decide whether a given work of art is beautiful? Is there a difference between knowledge and personal opinion? and Do human beings have free will? These pursuits also involve inquiring into the reasons we have for our beliefs about these issues. Thus, philosophers are forced to consider the additional problem of what kinds of reasons are good reasons.

The philosophy faculty has nineteen members; all have doctoral degrees. Furthermore, most classes, even in the beginning courses, are taught by regular staff members. Yet philosophy classes are small enough that students get personal attention from teachers who are committed to teaching and who enjoy working with students. This commitment to teaching is reflected in the fact that members of the philosophy faculty have regularly been chosen as recipients of all-University teaching awards.

CAREER OPPORTUNITIES

The value of philosophy lies in its ability to help students grow and develop into more complete persons—persons who have gained an appreciation of what it means to be human beings. Philosophy is relevant to all occupations and professions because it will help those who pursue them to become more sensitive and enlightened persons. Consequently, though some students may not want to major in philosophy, philosophy is a desirable minor for almost everyone.

Philosophy is especially appropriate as a minor for those who plan to enter the professions of teaching, law, medicine, journalism, theology, science, and social service, as well as for all who are or will become parents. Philosophy is an appropriate major for those entering teaching, law, and theology, as well as for those planning various types of government careers—in the Foreign Service, for example, or with the National Institutes of Health. In addition, because of the modest number of hours required for a philosophy major, many students find it convenient to plan a double major, uniting philosophy with such other academic fields as government, English, foreign language, business, computer science, mass communications, and art. For additional information or assistance concerning the philosophy program, please call the Philosophy Department Office.

DEGREE REQUIREMENTS

BACHELOR OF ARTS DEGREE, PHILOSOPHY

General Studies Requirements (Waive GHA—8) 60
Requirements for Concentration in Philosophy 56
- Foreign Language (first year) 12
- Philosophy 490 4
- Three courses in Area I with no historical overlap[1] 12
- One course in each of the other Areas 16
- Three more philosophy electives 12

Secondary Concentration 30-40
Electives 40-50

Total 192

[1]The following courses overlap historically: 484a overlaps with 385a and 385b; 484b overlaps with 385c; and 484c overlaps with 385d and 385e.

Recommendations: It is strongly recommended that all students elect Philosophy 200 early in their career (this course will be counted toward the major if it is taken within the first 12 credit hours after the student has declared a philosophy major). If students are seriously contemplating graduate work in philosophy, they should take two years of a foreign language, preferably French or German. Such persons should also take GHA 322, Philosophy 230, 385a, and 385c, as well as at least one of Philosophy 385b, 385d, and 385e.

Area Requirements

I. History of Western Philosophy. 385a, b, c, d, e—History of Western Philosophy sequence. 484a, b, c—History of Western Political Theory sequence.

II. Metaphysics and Epistemology. 300—Metaphysics. 301—Philosophy of Religion. 355—Philosophy of Education. 391—Theory of Knowledge.

III. Logic and Methodology. 230—Deductive Logic. 306—Phenomenology. 307—Philosophy of Science. 308—Twentieth Century Analytic Philosophy. 430—Symbolic Logic.

IV. Theory of Value. 310—Philosophy of Law. 311—Engineering, Ethics, and Professionalism. 312—Ethics in the Medical Community. 320—Philosophical Conceptions of Woman. 321—Social Philosophies of the Women's Movement. 342—Social and Political Philosophy. 345—Aesthetics of Film. 360—Philosophy of Art. 412—Contemporary Issues in Bio-Ethics. 470—Topics in Business Ethics.

V. Philosophy and World Culture. 302—World Religions. 380—Chinese Philosophy. 386—American Philosophy. 402—Hindu Thought. 403—Buddhist Thought.

MINOR REQUIREMENTS

A minor in philosophy consists of 24 hours in philosophy courses. One may count GHA 322 and either GSM 283 or GSS 283 toward these 24 hours, but other General Studies courses cannot be counted toward the requirements.

SCHOOL OF HUMANITIES ACTIVITIES

SOU'WESTER

Dickie A. Spurgeon, Managing Editor

Sou'wester, established in 1960 at the Alton Campus, is a literary magazine with national circulation publishing fiction

and poetry three times a year. *Sou'wester* offers valuable editing experience to students in English 494, Literary Editing.

PAPERS ON LANGUAGE AND LITERATURE

Alvin D. Sullivan, Editor

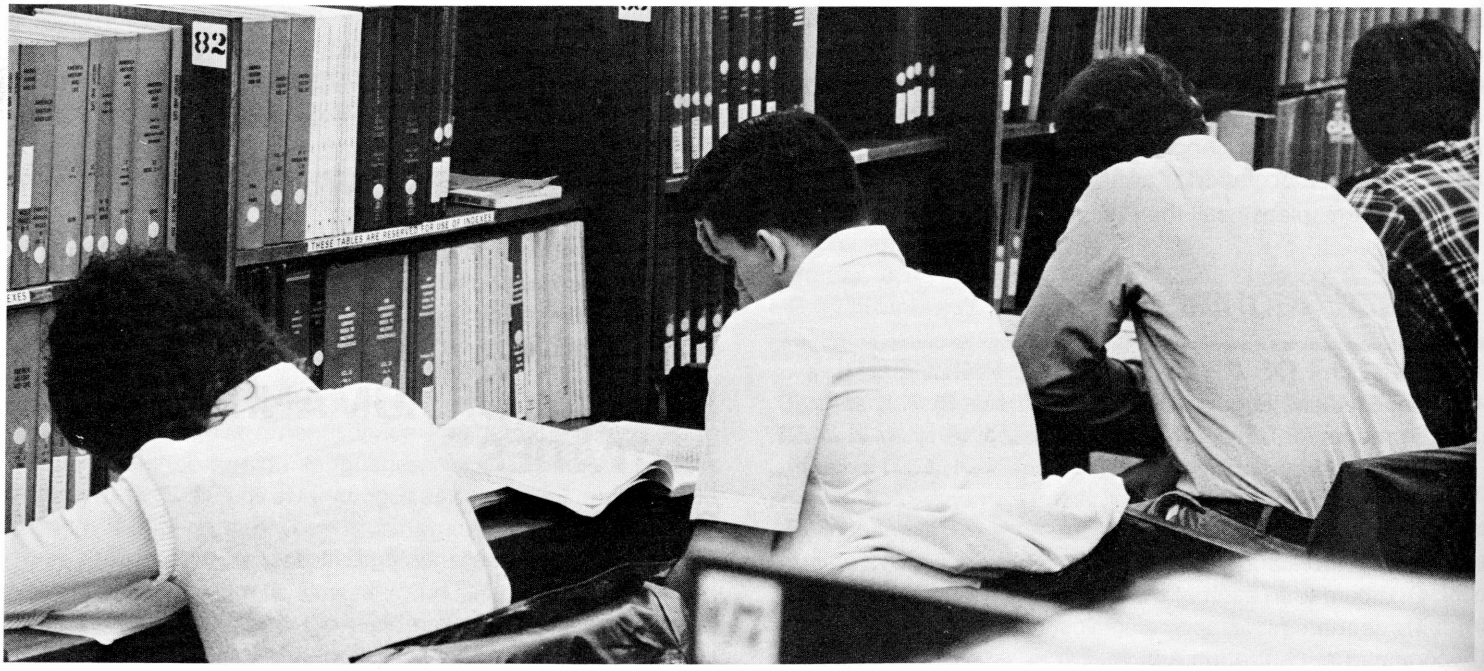
Papers on Language and Literature, now in its twentieth year of publication by the School of Humanities, is an internationally recognized scholarly journal indexed in the H. W. Wilson *Humanities Index,* the *MLA International Bibliography,* the *MHRA Annual Bibliography of English Language and Literature,* and the *Arts and Humanities Citation Index.* Students in English 506, Technical Editing, get valuable technical editing experience in the production of a critical scholarly journal.

HUMANITIES HONORS PROGRAM

Barbara Schmidt, Coordinator

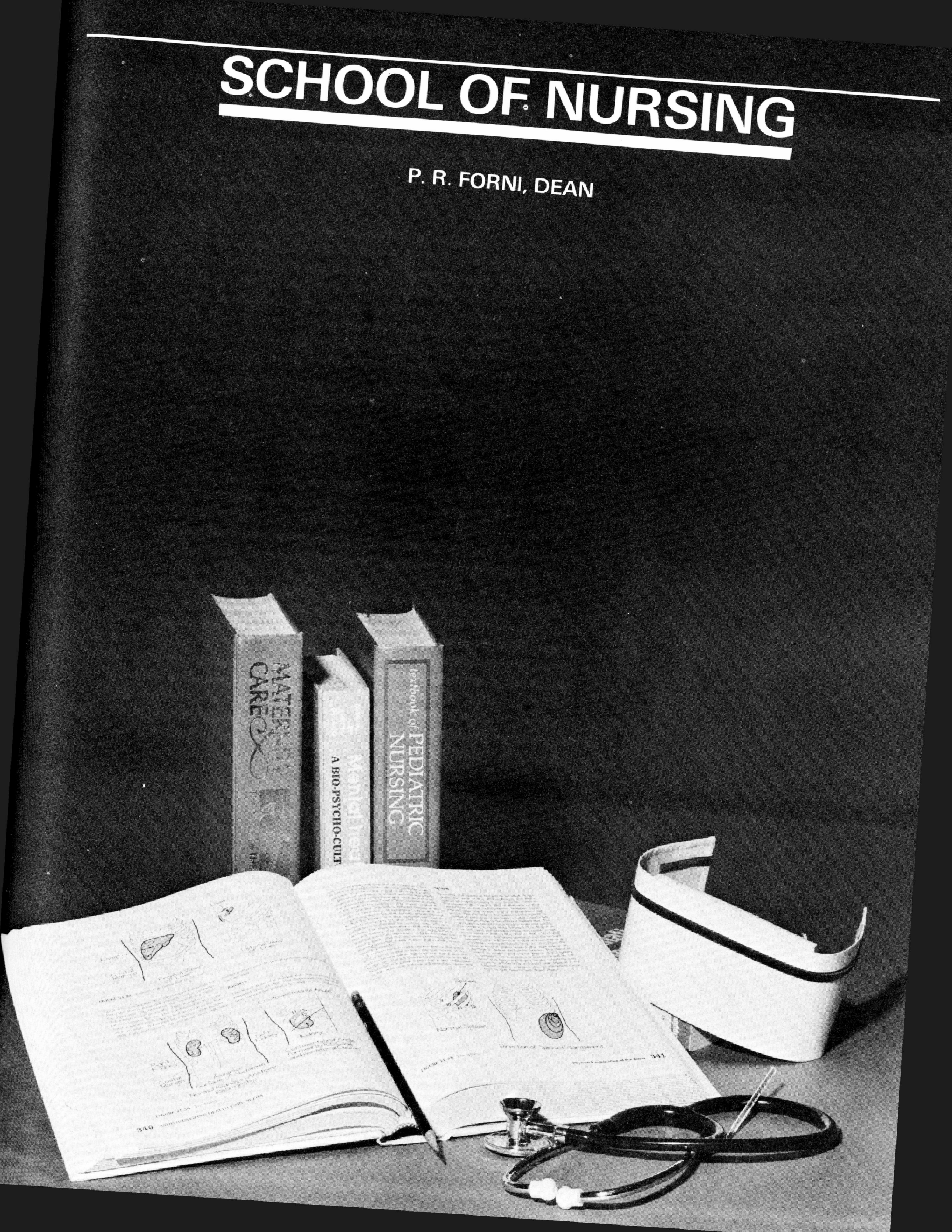
Each quarter the Humanities Honors Program offers at least one course designed specifically for academically superior students at SIUE. Enrollment is open to all qualified students. Each course is a seminar; enrollment, which is on a first-come, first-served basis, is limited to fifteen students in any one course.

Seminar courses are chosen from broad and multiple areas within the humanities, and each course concentrates intensively upon one major topic or idea. A Humanities Honors Course is never a survey course. Furthermore, the Honors Committee is careful not to duplicate or to encroach upon topics or areas presented regularly through the curricula of the departments of the University. The Program seeks to serve those qualified students whose desires to satisfy or to diversify their interests in the humanities are not met by existing curricula.



SCHOOL OF NURSING

P. R. FORNI, DEAN



The School of Nursing offers a program of study leading to the Bachelor of Science degree in Nursing. The program is accredited by the National League for Nursing. Faculty in the School have advanced preparation in their clinical area of specialization and are skilled clinical practitioners. Students have the opportunity to work with a number of faculty throughout the program.

Nursing is a dynamic, therapeutic, interpersonal discipline which assists people in maintaining, restoring, and promoting optimal health throughout their life spans. The practice of nursing includes assessment, planning, intervention, and evaluation. Professional nursing practice is broad in scope and serves individuals in a multiplicity of settings. Thus, the professional nurse functions in both traditional and non-traditional situations which may require conventional and/or innovative patterns of practice and role behavior.

FACULTY

Professor:
Forni, P. R. (Dean, School of Nursing)

Associate Professors:
Bell, D. E., Birnbaum, M. A., de Meneses, M. R., Gresley, R. S., Merritt, S. L., Perry, G., Welch, M. J.

Assistant Professors:
Cady, L. M., Custer, M. S., McDonnell, B. C., Mitchell, S. I., Ruddy-Wallace, M. W., Rumfelt, J. J., Sykes, R. K., Walker, B. B., Ward, L. D.

Instructors:
Allen, N., Andrews, M., AuBuchon, B. L., Augustyn, R. M., Baccus, M. G., Branch, C. A., Canfield, R. H., Freed, P. E., Haycraft, L. L., McBride, L., Marshall, F. G., Morton, J. A., Pinnell, N. L., Steele, R. L., Strader, M., White, C. A.

Visiting Instructor:
Attala, J. M., Nicholson, J. C., Schmidt, C. A.

CAREER OPPORTUNITIES

Professional nurses are in great demand across the country. Opportunities for employment exist in a variety of health care settings, including hospitals, nursing homes, offices, industry, schools and clinics. Graduates of this program are able to find immediate employment upon graduation. Students have numerous opportunities for part-time employment while attending school.

ADMISSION REQUIREMENTS

The baccalaureate program consists of courses in the arts and sciences, as well as in the nursing component which is concentrated at the upper division level. Foundational courses are available in the General Studies program and various departments on campus. Students are admitted into the School of Nursing every quarter during the academic year. Admission to the University does not guarantee acceptance into the School of Nursing.

Students seeking admission to the School of Nursing should consult an adviser at (618) 692-3956 for admission requirements. Prior to admission to the School, applicants must complete the course prerequisites.

Applicants are encouraged to apply at least three quarters prior to the expected quarter of entrance into the School. Forms for this purpose are available in the School of Nursing. Deadline dates for application are: for fall quarter, December 15 of the previous year; for winter quarter, March 15 of the previous year; for spring quarter, June 15 of the previous year. Late applicants will be considered on a space available basis.

Admission criteria for the School include: (1) successful completion of prerequisite courses with grades of C or above, (2) minimum overall grade point average of 3.50 (on a scale of 5.00), and (3) completed application on file in the School of Nursing by the time deadline.

An application is considered complete when the application, official transcripts of all college coursework, record of current course enrollment, and most recent cumulative grade point average are in the applicant's file. Applicants are responsible for insuring that materials are received (Box 66, School of Nursing) by February 1 for fall admission, by July 1 for winter admission, and by October 1 for spring admission. Applicants' files completed after those dates will be reviewed on a space available basis.

Applicants are accepted from a list of students whose cumulative grade point averages are 3.50 (on a scale of 5.00) or better and who have no grades lower than C in any prerequisite courses. Grades of D or E in prerequisite or nursing courses are not accepted by the School of Nursing. When there are more qualified applicants than can be accepted into the School of Nursing, selective criteria will be used to rank all qualified applicants. Please contact the School of Nursing for detailed information. Because of limited enrollment in the School, all qualified applicants may not be accepted for a specific quarter; those not accepted are encouraged to reapply for a subsequent quarter.

Transfer students follow the same procedures and must meet the same criteria. In addition, transfer students must send a transcript and school bulletin to the School of Nursing for approval of transfer prerequisite courses. Transfer students who are Registered Nurses must meet the requirement of an overall grade point average of 3.50 and complete the same course of study as is required of generic students. Registered Nurses must also present proof of licensure upon application. Missouri licensure is required for Registered Nurse students who use Missouri agencies as part of their clinical experience as a student. Early application is *not* required for Registered Nurses.

Nursing courses taken in any program other than NLN accredited baccalaureate level programs do not transfer. Registered Nurses may receive up to 48 hours of credit by passing proficiency examinations in courses in the nursing major. Students who feel capable of meeting the objectives may petition to take the proficiency examination for selected nursing

courses. Some credit may also be obtained through CLEP general and/or subject examinations.

Annual physical examinations and specific diagnostic requests are required for all students enrolled in the School of Nursing.

All students are encouraged to seek early advisement in the School of Nursing so that an appropriate program of study can be projected, and so that they can receive additional information relative to School policies.

DEGREE REQUIREMENTS

The baccalaureate program in nursing provides generalist preparation and a foundation for graduate education. Graduates of the program receive a Bachelor of Science degree in Nursing and are eligible to take the State Board Examination for licensure as a Registered Nurse.

Clinical experiences are an integral part of the nursing major. Health care agencies in Metro-East and in St.Louis cooperate with the School in providing opportunities to practice clinical skills.

BACHELOR OF SCIENCE DEGREE, SCHOOL OF NURSING

(For students seeking admission to the School of Nursing)

General Studies Requirements (Waive GSM-8)	60
Level I Courses	58
Anthropology: GSS 210(4)[1]	(4)
Biology: 210(4)[1], 312a(5)[1], 312b(5)	14
Chemistry: 110(12)[1]	12
Humanities: GHA 322(4), Elective(4)	(8)
Nursing 170(4)[1]	4
Nursing 201 through 242	20
Psychology: GSS 260(4)[1], Psychology 305(4)	(4)=4
Science and Mathematics: GSM Elective(4)	(4)
Skills: GSK 101(4)[2], 102(4)[2], 123(4)[2]	(12)
Social Science: GSS Elective(4)	(4)
Sociology: GSS 130(4)[1], Sociology 340(4)	(4)=4
Level II Courses	52
Interdisciplinary Studies: GIS Elective(4)	(4)
Nursing 301 through 344	48
Psychology: Psychology 465(4)	4
Skills: GSK 152 or 162(4)	(4)
Science and Mathematics: GSM Elective(4)	(4)
Level III Courses	22
Humanities: GHA Electives(8)	(8)
Electives	6
Nursing 401 through 442	16
Total	192

[1]Satisfactory completion (C or above) of these courses or their equivalent is prerequisite to admission to the School of Nursing.
[2]Satisfactory completion (as defined by the University) is required for admission to the School of Nursing.

ACADEMIC STANDARDS

The School expects its students to maintain a minimum grade of C in all courses in the nursing major. Students who fail a nursing course will be referred to the Progression and Retention Committee. Students will be excluded from the School for failures in (a) 2 nursing practicum courses or (b) 1 nursing practicum course and 2 nursing didactic or college laboratory courses or (c) 3 didactic nursing or college laboratory courses. After admission to the School students must maintain a cumulative grade point average of at least 3.00 (on a five point scale) to continue in nursing.

All nursing majors are required to file reports of annual physical examinations and immunizations. Some clinical courses have requirements for specific tests such as X-rays or nose culture. The Student Handbook for Undergraduate Nursing issued to students accepted into the School of Nursing contains full details.

SPECIAL COSTS

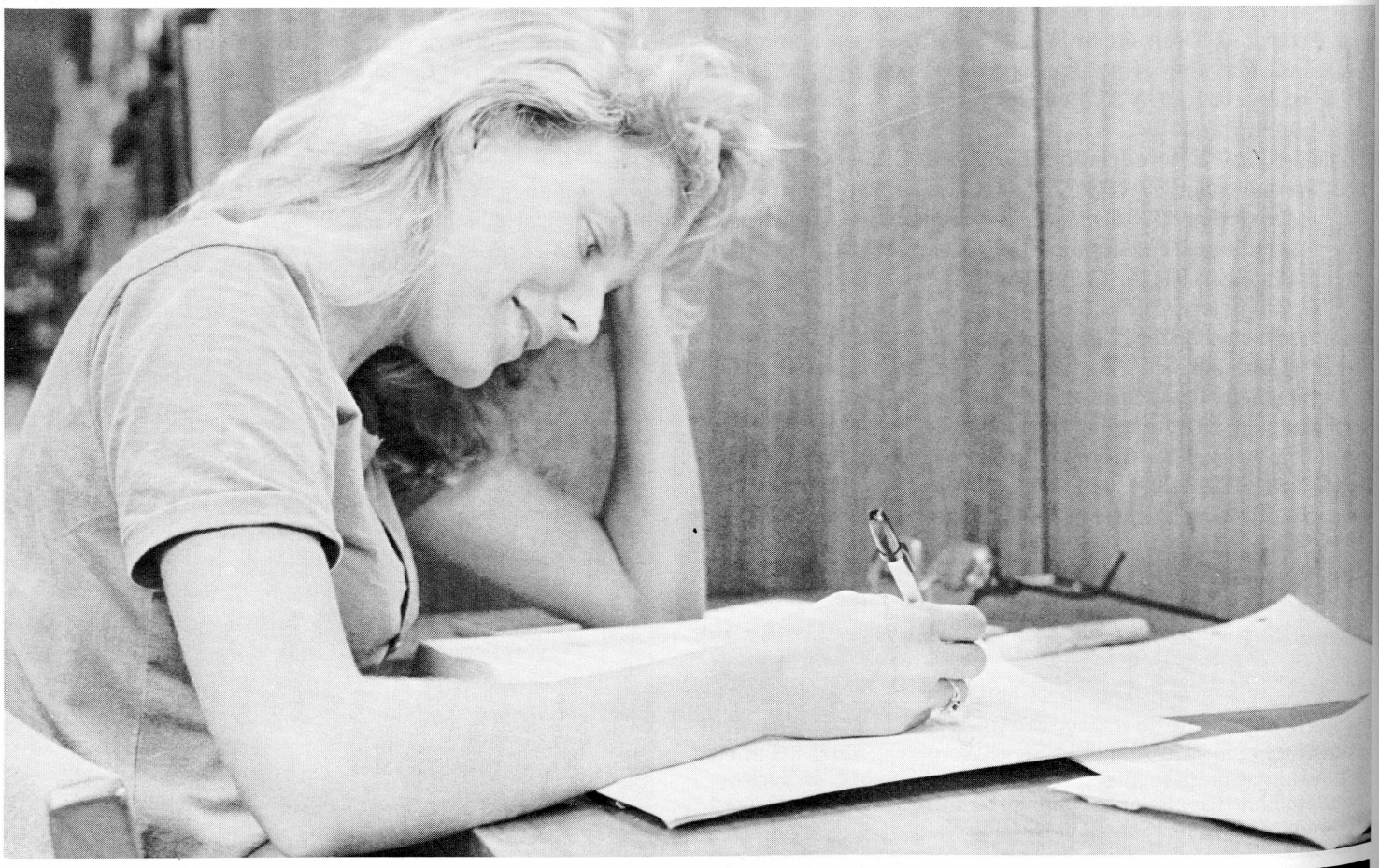
Students wear a uniform while in clinical practice. Please refer to the Student Handbook for additional information. Additionally, students should be prepared to purchase a variety of health care equipment, such as a stethoscope, bandage scissors, and a watch with a second hand. Certain textbooks used throughout the curriculum must be purchased during the first three quarters. These cost approximately $200.00.

Costs for special tests, such as nose cultures required by clinical agencies, are payable to the Bursar.

The School pin, available only at graduation, may be purchased at the University Bookstore for approximately $43.00.

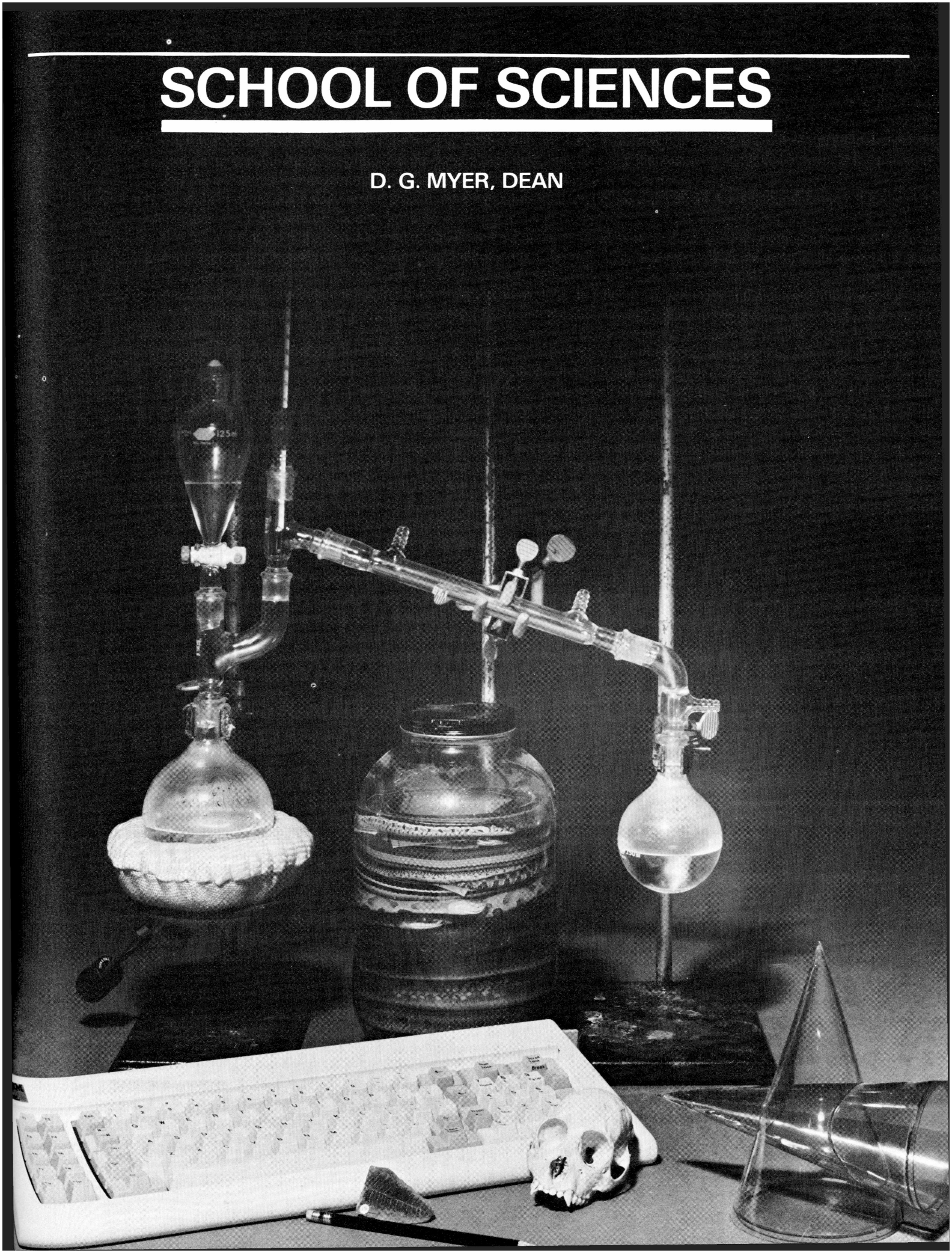
Costs for State Board Examinations should also be anticipated.

Students must provide their own transportation to and from clinical agencies. This requires two trips per week for distances as great as 40 miles from the campus.



SCHOOL OF SCIENCES

D. G. MYER, DEAN



The School of Sciences provides quality education at the bachelor's and master's levels in the major disciplines of Biology, Chemistry, Computer Sciences, Environmental Studies, Mathematics, Physics and Statistics. The 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. Each department in the School provides one or more programs of specialization, which are described in detail in the following pages. The School also actively strives to serve the needs of local institutions, industries, communities and governments through continuing education programs and technical cooperation and consultations.

ADMISSION

High school students who plan to major in one of the degree programs in Biology, Chemistry, Physics, or Mathematics, Statistics, and Computer Science should complete at least three years of college preparatory mathematics (two years of algebra and one year of geometry) prior to entering college. 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 the School of Sciences requires declaration of a major by the student in one of the disciplines in the School and acceptance by the department. Once admitted, students are formally affiliated with the department and assigned a faculty adviser. Advisement is mandatory, and declared majors are allowed to register each quarter after course request forms have been approved by the departmental adviser. Study of science is progressive in nature and students are encouraged to select their major field of study early in their academic careers in order to insure orderly progress toward meeting degree requirements.

To obtain formal acceptance to a major program in the School, students already enrolled in the University must have a minimum grade point average (GPA) of 3.00 in science and mathematics courses completed and also a GPA of 3.00 or higher in all courses taken at SIUE. Transfer students should meet similar minimal requirements. In addition, students may have to satisfy other special requirements established by the departments.

ACADEMIC STATUS

Students should show satisfactory academic progress in order to be retained in the program. Students may be dropped from the program in any one of the following circumstances:

a) GPA of 2.00 or less in any quarter;
b) Cumulative GPA of less than 3.00 in the major at any time;
c) Withdrawal, incomplete, and/or failing grades in 50% or more of the credits for which the student is registered during two successive quarters;
d) Any combination of three withdrawal, incomplete, or failing grades in any single required course in the major discipline;
e) failure to satisfy any other requirement established by the major department.

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

GRADUATION REQUIREMENTS

The following requirements must be met in order to graduate from the School:

a) a minimum of 192 quarter hours of acceptable credit with an overall GPA of 3.00 or higher;
b) a minimum of 48 hours of credit in one major with a GPA of 3.00 or higher;
c) at least 16 hours of SIUE credit in major courses numbered above 299 with a GPA of 3.00 or higher;
d) a GPA of 3.00 or above in all major courses numbered above 299;
e) at least 9 hours of credit in major courses numbered above 299 earned at SIUE within 2 years preceding graduation.

Duplicate credits of the following types are not applied towards the 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.

Candidates for the Bachelor of Science degree in education in a major in the School of Sciences should meet the following requirements:

a) either a minimum of 48 hours of credit in the major discipline *or* a minimum of 36 hours in the major area plus two 27 hour minors in other fields of study;
b) same GPA requirements as for other degree candidates.

ADDITIONAL ACADEMIC OPTIONS

a) Double majors: Interested students may pursue a double major by completing the major requirements in two disciplines. However, the same hours of credit may not be applied to satisfy the major requirements of two departments.

b) BS/MS option: Undergraduates with exceptional academic credentials may be able to earn both the bachelor's degree and the master's degree in some disciplines in fewer than 5 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 should seek advice from their faculty advisers early in their junior year.

MINOR REQUIREMENTS

A minor within the School must include at least 27 hours of credit with a GPA of 3.00 or higher of which at least 8 hours must be SIUE credit. Specific requirements are listed by department under the heading Minor.

BIOLOGICAL SCIENCES

Professors:
Axtell, R. W., Baich, A., Broadbooks, H. E., Keating, R. C.,

Kulfinski, F. B., Kumler, M. L., Levy, M. R., Myer, D. G. (Dean, School of Sciences), Thomerson, J. E., Wittig, G. C., Zahalsky, A. C.

Associate Professors:
Brugam, R. B., Eder, D. J., Nair, T. S., Parker, N. R., Ratzlaff, K. O.

Assistant Professors:
Wanda, P. E., Wilson, C. B.

Adjunct Faculty:
Austin, M. K., Instructor, Med Tech, Beiermann, M. .K., Instructor, Med Tech, Bobowski, S. J., Professor, Med Tech, Buckles, N., Instructor, Med Tech, Gavin, M. L., Instructor, Med Tech, Hoegl, J., Instructor, Med Tech, McCarty, M. A., Professor, Med Tech, Palermo, V. G., Professor, Med Tech, Penning H. L., Professor, Med Tech, Popoff, C. M., Professor, Med Tech, Soto, P. J., Professor, Med Tech, Torrey, J. A., Assistant Professor, Med Tech, Van Fossan, D., Professor, Med Tech, Visintine, J. R., Instructor, Med Tech, Wilner, G. D., Professor, Med Tech

The study of biology includes the whole domain of living things. Its themes extend from the molecular through the cellular and organismic to the population levels of biological organization. Biology includes the study of the pattern of cellular structure, the underlying biochemical pathways, the 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. As these threads are examined and interwoven, the human relationship to the whole world of life becomes apparent. 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 how living things are put together, how they function, or how they are interrelated with their environment may want to study biology.

CAREER OPPORTUNITIES

A variety of careers are available for people with basic or advanced training in biology. These include careers in subfields like bacteriology, botany, ecology, environmental biology, fisheries biology, genetics, horticulture, microbiology, molecular biology, parasitology, physiology, wildlife management, immunology, and zoology. Technical and supervisory positions are available in federal, state, industrial and university laboratories. Environmentally-related and health-related occupations almost always require a sound basic training in biology. A large majority of students entering schools of medicine, dentistry, optometry, osteopathy, veterinary science, chiropractic and podiatry are biology majors. A basic training in biology is also appropriate for many careers in allied health sciences, including nutrition, pharmacy, occupational therapy and physical therapy. Certain of these careers may require more specialized training.

SPECIALIZATIONS IN BIOLOGICAL SCIENCES

The Department of Biological Sciences offers four specializations or options for a Bachelor of Arts or Science degree in Biology. These are: a) specialization in Biology; b) specialization in Ecology; c) specialization in Medical Science; and d) specialization in Medical Technology. Brief descriptions of these specializations along with the academic requirements for each are given below. The programs are sufficiently flexible to allow students to change from one specialization to another should their goals and interests shift.

ADVISEMENT

Students interested in majoring in one of the options in biology are advised to declare their major as early as possible and to consult with a biology adviser without delay. At the time of declaration, students are informed in writing of the advisement procedures including the name of the faculty adviser assigned to each student. Students are required to consult their advisers prior to the registration period each quarter. Enrollment in biology courses requires prior approval of the adviser. Biology, particularly specializations in Medical Sciences and Medical Technology, requires a definite time sequence if the course requirements are to be completed in four years. Appointments for advisement may be made by calling the Biology Office at 692-3927.

The adviser will be pleased to assist students in preparing tentative sample programs. Sample programs permit students to receive bachelor's degrees in biology under one specialization or another in four years.

ACADEMIC REQUIREMENTS

A. Academic Standards
All students pursuing a major in the biological sciences must adhere to the following academic standards:

1. A grade of C or better is required in the introductory biology courses (100 and 101 or the equivalent) before a student can proceed into any of the courses numbered above 199.
2. No more than 5 hours of D may be counted in the 52 hours that are required for a major in the biological sciences.

B. Residency and Other Requirements

Majors in the biological sciences must complete at least 24 of the required hours in Biology at SIUE. At least two 400-level courses must be included in the 24 hours. Students may take as many as 8 hours of 491 and 493 together as electives but these will not fulfill the 400-level requirements. For graduation, all specializations require 48 hours in Biology beyond the introductory level. Biology major credit will be awarded for courses cross-listed with the biology curriculum. One year of a foreign language is required for the B.A. degree in all specializations.

Minors in the biological sciences must complete at least 12 of the 27 hours in biology at SIUE. Minors and other students whose program requirements do not include Chemistry 125 may substitute Chemistry 110 for enrollment in any biology course for which Chemistry 125 is listed as a prerequisite.

DEGREE REQUIREMENTS

Biology Specialization

The curriculum in this program is designed to provide a firm basis in biological sciences for students with a variety of aims. It is an attractive major for students planning to enter graduate school or to pursue careers in biological research or in applied work in such areas as agriculture, conservation, wildlife management, etc. Students in this program may elect to concentrate in such specific subdisciplines as Botany, Microbiology, Physiology, Cellular and Molecular Biology, Genetics, and Zoology by completing their electives through courses in these areas. Courses available in each subdiscipline are listed at the end of this section.

BACHELOR OF ARTS OR BACHELOR OF SCIENCE DEGREE, BIOLOGICAL SCIENCES

General Studies Requirements 52
(Waive GSM (8) and substitute 8 hours of courses included in the requirements below.)

Biology Requirements 56
100, 101, 220, 331 and any two of 270, 280, 350 28
Electives 28
Elective courses may be chosen from any Biology courses permitted for major credit. Electives must include three lecture courses at the 400 level.

Chemistry Requirements 15-28
Minimum: 125a,b; 126a,b;, 110b 15
Recommended for minor: 125, 126, 241, 245a,b 28

Mathematics/Physics Requirements 16-19
MSCS 150 and GSM 101 OR Physics 206 (or 211 and 212) 12-15
A course in statistics (GSM 244 or equivalent) 4

Electives 53-37

Total 192

Subdiscipline Electives

Botany: Electives available include: Plants and Environment, Biology 461; Economic Botany, 477; Topics in Plant Physiology, 472; Plant Anatomy, 475; Plant Microtechnique, 417; Field Botany, 470; Phycology, 471.

Microbiology: Electives available include: Introduction to Microbiology, Biology 350; Immunology, 335; Diagnostic Microbiology, 351; Microbial Physiology, 454; Virology, 455; Microbial Pathogenesis, 451; Microbial Genetics 452; Phycology, 471.

Physiology: Electives available include: Physiology, 340; Microbial Physiology, 454; Cell Organelles and Inclusions, 436; Mammalian Physiology, 441; Neurophysiology, 444; Endocrinology, 445; Psychobiology, 448; Topics in Plant Physiology, 472.

Cellular and Molecular Biology and Genetics: Electives available include: Molecular Biology, 430; Microbial Physiology, 454; Techniques in Cell and Tissue Culture, 415; Cell Organelles and Inclusions, 436; Human Genetics, 421; Microbial Genetics, 452; Endocrinology, 445; Immunology, 335.

Zoology: Electives available include: Biology 324, Functional Morphology of Vertebrates; Embryology, 325; Principles of Parasitism, 482; Ethology 467; Mammalian Physiology, 441; Endocrinology, 445; Field Zoology, 480; Principles of Entomology, 483; Ichthyology, 485; Herpetology, 486; Ornithology, 487; Mammalogy, 488; Biology of the Primates, 489.

Ecology Specialization

The recent rapid advances in technology combined with growing awareness of the impact of human activity on the environment have resulted in the development of broad teaching and research areas in biological ecology.

Ecology is the study of interactions between living organisms and their environment. Ecology integrates biological disciplines through the study of individuals, populations, communities, and ecosystems. This area of study has both academic and practical importance for students; it stimulates their intellectual curiosity while providing them with increasing knowledge and new techniques to insure the health, productivity, and diversity of the biosphere.

The Ecology Specialization within the Biological Sciences Bachelor's Degree Program will prepare students for positions which require application of ecological principles and processes

to those activities which are environmentally responsive.

Students selecting this specialization will take a planned sequence of basic ecology courses which includes: 1) ecological principles; 2) a course in aquatic ecosystems; and 3) a course in terrestrial ecosystems. In addition, a variety of elective support courses is also available, and students may choose to take an emphasis in various areas of ecology, such as plant ecology, animal ecology, or physiological and biochemical ecology. Students may obtain more information about various emphases within the specializations from their advisers.

DEGREE REQUIREMENTS

BACHELOR OF ARTS OR BACHELOR OF SCIENCE DEGREE, BIOLOGICAL SCIENCES WITH A SPECIALIZATION IN ECOLOGY

General Studies Requirements 52
(Waive GSM (8) hours and substitute 8 hours of courses included in the requirements below.)
Biology Requirements 56
100, 101, 220, 331, any two of 270, 280, 350, 365, 465 or 466, and one additional course from 460, 461, 465, 466, 470, 480 40
Electives 16
Electives may be chosen from any Biology courses permitted for major credit. Electives must include one additional lecture course at the 400-level. Particularly appropriate electives include alternates to courses chosen above as well as 467, 471, 472, 477, 483, 485, 486, 487, 488, 489.
Chemistry Requirements 18-28
Minimum: 125a,b; 126a,b; 110b,c 18
Recommended for minor: 125, 126, 241, 245a,b 28
Mathematics/Physics Requirements 26-27
MSCS 150 8
Physics 206 or 211 and 212 14-15
A course in statistics (GSM 244 or equivalent) 4
Electives (a course in computer language is recommended) 40-29

Total 192

Medical Sciences Specialization

The pre-health professions curriculum will prepare an individual for entry into Medical, Dental, 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. These individuals should also exhibit general and special traits commonly associated with health practitioners, e.g., persistence, curiosity, good judgment, initiative, emotional maturity, and attention to details. Pre-dental students should also have or develop good manual skills and the ability to make acute judgments on space and shapes.

The biology program described below is designed to provide students with a rigorous course of study which will satisfy the entrance requirements of the professional schools, as well as to award students a B.S. 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 declaring the Medical Science Specialization will be advised by a Biology/Medical Science adviser with regard to their academic curricula. Since professional schools adhere rigidly to their entrance requirements and since there is a definite time sequence for completion of these requirements, students in this specialization should seek advisement early to insure satisfactory progress.

The Chief Health Professions Adviser maintains a centralized evaluation service to aid the students seeking entry into professional schools during the application process. The adviser is available in the Biology Department to help and advise such students with regard to application procedures.

DEGREE REQUIREMENTS

BACHELOR OF ARTS OR BACHELOR OF SCIENCE DEGREE, BIOLOGICAL SCIENCES WITH A SPECIALIZATION IN MEDICAL SCIENCE

General Studies Requirements 52
(Waive GSM (8) and substitute 8 hours of courses included in the requirements below.)
Biology Requirements 56
100, 101, 220, 331, any two of 270, 280, 350; any three of 240 or 340, 324 or 325, 332 or 430, 335, 337 41-47
Electives 9-15
Electives may be chosen from any Biology courses permittted for major credit. Particularly appropriate electives include alternates to courses chosen above as well as 412, 421, 441, 445, 451, 454, 455. Three lecture courses at the 400-level are required; completion of 430 counts as two.
Chemistry Requirements 26-28
Minimum: 125, 126, 241, 245a (Recommended for a minor, addition of 245b)
Mathematics/Physics Requirements 22-23
MSCS 150 8
Physics 206, or 211 and 212 14-15
Electives 36-33

Total 192

Students admitted to professional school at the end of the junior year may substitute transfer credit earned during the first

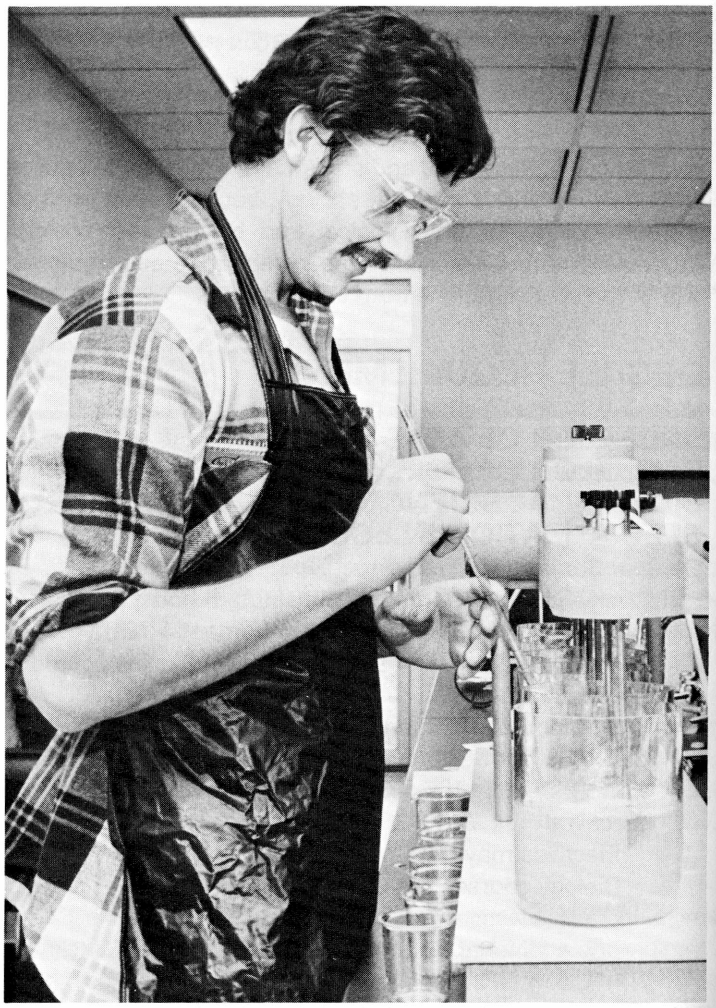
year of professional school for any 48 hours of biology or general electives. In such cases, students earn degrees at the end of the first year of professional school subsequent to application by the students and receipt of the first year's transcripts.

Medical Technology Specialization

This degree specialization is designed for those students who wish to become Medical Technologists certified by the American Society of Clincial Pathologists (ASCP). Medical technologists should have a firm understanding of the theory behind diagnostic tests which they perform in the clinical laboratory. Their responsibilities encompass all of the 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 which aid the physician in the prevention and cure of disease. Most medical technologists are employed in hospitals, but private laboratories, physicians' offices, governmental agencies, industrial and pharmaceutical laboratories, and university research programs offer dramatically increasing opportunities for employment and advancement.

The American Medical Association's Council on Medical Education, the American Society of Clinical Pathologists (ASCP), and the American Society for 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 calendar year of clinical/professional study takes place in a clinical laboratory setting at any one of our 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 fifty-five 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 all four years of this 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 MTs (ASCP).

Students in this program should seek advisement early in their academic careers from the Biology/Medical Technology adviser because there is a definite time sequence for the completion of requirements. Careful scheduling is essential to completion of the on-campus academic portion of the program in three years.



DEGREE REQUIREMENTS

BACHELOR OF ARTS OR BACHELOR OF SCIENCE DEGREE, BIOLOGICAL SCIENCES WITH A SPECIALIZATION IN MEDICAL TECHNOLOGY

General Studies Requirements 52
(Waive GSM (8) and substitute 8 hours of courses included in the requirements below.)

Biology Requirements 45
100, 101, 220, 331, 350, 270 or 280, 335, 240 or 340 37-42
Electives 3- 8
Electives may be chosen from any Biology courses permitted for major credit. Particularly appropriate electives include 332 or 430, 337, 351, 412, 441, 445, 451, 455, 482.

Chemistry Requirements 28-31
Minimum: 125, 126, 110b,c, 335 28
Recommended: 125, 126, 241, 245a, 335 ... 31

Mathematics/Physics Requirements 13-17
GSM 101 and GSM 144 9
A course in statistics (GSM 244 or equivalent)

or MSCS 150	4- 8
Clinical Education at Hospital School of Medical Technology (495)	55
Total	193-200

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE DEGREE, BIOLOGICAL SCIENCES, SCHOOL OF EDUCATION

For this degree the requirements for a major in biology are as listed above, under Bachelor of Arts degree, with the following exceptions: no foreign language is required; a minimum grade of C is required in each of the following courses: 100, 101, 220, 331, any two of 270, 280, 350; an overall biology grade point average of 3.2 is required for entrance into the program and for student teaching approval. (For more details, see Secondary Education requirements.)

COMBINED BACHELOR OF SCIENCE AND MASTER OF SCIENCE PROGRAM

Seniors with a grade point average of 4.0 or better may, with approval of the Graduate Committee in Biology and the Dean of the Graduate School, pursue graduate work while completing the baccalaureate degree. It is expected that both degrees could be completed within five years under this arrangement.

MINOR REQUIREMENTS IN BIOLOGICAL SCIENCES

Students wishing to complete a minor in the biological sciences must take a minimum of 27 hours of biology courses, at least 12 of which must be completed at SIUE in courses numbered above 300.

Courses must include the following:

1) Biology 100, 101, or equivalent.

2) At least two biology courses from the following group: 331 (Cell Biology), 280 (Zoology), 270 (Botany), 340 (Physiology) OR 240 (Human Anatomy and Physiology), 220 (Genetics), 365 (Ecology).

3) Electives: The remaining hours may be completed with any courses in the biological sciences except 491, 493, and 494. No more than 4 hours may be counted from GSM 230, 231, 232, 233, 234, 236, 237. (GSM 130 and 131 are not available for minor credit.)

CHEMISTRY

Professors:
Bain, R. L., Bouman, T. D., Drew, H. D., Firsching, F. H., Hall, S. K., Matta, M. S., Patrick, T. B., Rands, D. G., Spencer, J. A., White, J. E., Wilbraham, A. C.

Assistant Professors:
McClure, J. R., Viola, R. E.

Instructor:
Staley, D. D.

Students who want to major in chemistry, or think that they may, should visit or call the Department of Chemistry (Science Laboratory Building, Room 2325; telephone 692-2042) as soon as possible. They will be assigned to a faculty adviser who will help them plan an academic program. Early advisement will enable them to complete their program with minimum conflicts and within the shortest possible time.

CAREER OPPORTUNITIES

The undergraduate chemistry curriculum prepares students for a variety of careers. Many chemistry majors choose to continue their studies with graduate work in chemistry or biochemistry. Others enter schools of medicine, dentistry, veterinary medicine, and pharmacy. Still others begin careers in industry. Most industrial chemists work for companies involved in making everyday necessities, such as drugs, plastics, fertilizers, and semi-conductors.

Other opportunities to make significant contributions to society are available to chemistry graduates who have additional training in fields such as computer science, ecology, economics, law, library science, marketing, medicine, and technical writing.

DEGREE REQUIREMENTS

The Department of Chemistry offers Bachelor of Science and Bachelor of Arts degrees. The B.S. curriculum satisfies the guidelines of the American Chemical Society (ACS) for the training of professional chemists, and all graduates with this degree will be certified by the ACS as having completed an approved program. The B.A. curriculum has fewer chemistry requirements than the B.S. curriculum in order to accommodate a variety of student goals. There are three specializations available: (a) a very flexible program which gives a general introduction to chemistry, and which is supplemented by electives in chemistry or other fields; (b) a more structured program which provides preprofessional training for the medical science professions; and (c) a program which leads to certification for teaching high school chemistry. These requirements and courses may change; advisers will have the most recent information. The degree requirements which follow are in addition to the graduation requirements of the University and the School of Sciences.

BACHELOR OF SCIENCE DEGREE, CHEMISTRY - AMERICAN CHEMICAL SOCIETY (ACS) APPROVED PROGRAM

The B.S. degree does not require a minor. Students must, however, be able to read a foreign language and solve chemical problems on a computer before they graduate. Advisers will help students decide how best to meet these requirements.

General Studies Requirements (8 hours of GSM may be replaced with 8 hours from the science courses listed below) 52
Chemistry Requirements 63
- Chemistry 125a, b, c 12
- Chemistry 126a, b, c 3
- Chemistry 241a, b, c 9
- Chemistry 245a, b, ... 4
- Chemistry 335 5
- Chemistry 345 3
- Chemistry 361a, b, c 9
- Chemistry 365a, b 4
- Chemistry 411 4
- Chemistry 432a 4
- Chemistry 451a[1] 3
- Chemistry Elective[2] 2-3

Mathematics Requirements 16
- MSCS 150a, b 8
- MSCS 260a, b 8

Physics Requirements 14
- Physics 211a, b, c 12
- Physics 212a, b 2

Additional Science Elective (may be Chemistry) 2-4
Other Electives 43-45

Total 192

[1]Biology 301e (3) or Biology 400a (3) may be substituted for this course.
[2]Chemistry 396 or a chemistry course at the 400 level.

DEGREE REQUIREMENTS

BACHELOR OF ARTS DEGREE, CHEMISTRY

The flexibility of the chemistry requirements for the B.A. degree is shown below. Students may take a minor or they may take a group of courses from more than one department which will support their major educational and career objectives. If they choose the second alternative, the program must include at least four supporting courses that total at least 16 hours of credit; the physics and mathematics courses required for the B.A. program do not count as supporting courses.

BACHELOR OF ARTS DEGREE, CHEMISTRY - BASIC PROGRAM

General Studies Requirements (8 hours of GSM may be replaced with 8 hours from the science courses listed below) 52
Foreign Language Requirement 12
Chemistry Requirements 53-56
- Chemistry 125a, b, c 12
- Chemistry 126a, b, c 3
- Chemistry 241a, b, c 9
- Chemistry 245a 2
- Chemistry 335 5
- Chemistry 361a, b, c, 365a, b 10-13
- Chemistry Electives 12

Mathematics Requirements 8
- MSCS 150a, b 8

Physics Requirements ..... 12 or 15
- Physics 211a, b, c or 206a, b, c ..... 12 or 15

Approved Supporting Courses or Minor 16-27
Other Electives 22-39

Total 192

BACHELOR OF ARTS DEGREE, CHEMISTRY, MEDICAL SCIENCE SPECIALIZATION

General Studies Requirements (8 hours of GSM may be replaced with 8 hours from the science courses listed below) 52
Foreign Language Requirement 12
Chemistry Requirements 48-51
- Chemistry 125a, b, c 12
- Chemistry 126a, b, c 3
- Chemistry 241a, b, c 9
- Chemistry 245a, b 4
- Chemistry 335 5
- Chemistry 451a[1] 3
- Chemistry 361a, b, c, 365a, b 10-13
- Chemistry Electives 2

Mathematics Requirements 8
- MSCS 150a, b 8

Physics Requirements ..... 12 or 15
- Physics 211a, b, c or 206a, b, c ..... 12 or 15

Biology Requirements 12
- Biology 101 4
- Biology 331 5
- Biology Electives 3

Other Electives (additional Chemistry and Biology recommended) 42-48

Total 192

[1]Biology 332-4 or Biology 430a-3 may be substituted for this course.

Students admitted to a medical school at the junior year may transfer appropriate medical school credits to complete the requirements for a degree in chemistry from SIUE.

DEGREE REQUIREMENTS

BACHELOR OF ARTS DEGREE, CHEMISTRY, SECONDARY EDUCATION

General Studies Requirements (8 hours of GSM may be replaced with 8 hours from the science courses listed below) 52
Foreign Language Requirement 12
Chemistry Requirements 48-51
- Chemistry 125a, b, c 12
- Chemistry 126a, b, c 3
- Chemistry 241a, b, c 9
- Chemistry 245a 2
- Chemistry 335 5
- Chemistry 361a, b, c, 365a, b 10-13

Chemistry 245b or 311 or 451a	2-3
Chemistry Electives	6-5
Mathematics Requirements	8
MSCS 150a, b	8
Physics Requirements	12 or 15
Physics 211a, b, c or 206a, b, c	12 or 15
Professional Education Requirements	47
Secondary Education 215	4
Education 305	4
Education Foundations 355	4
Secondary Education 401b or Secondary Education 315 plus elective	9
Secondary Education 401c or Secondary Education 352	16
Special Education 400	4
Health Education 201	3
Physical Education	3
Other Electives	6-13
Total	192

Scheduling for the third and fourth years involves coordination between the chemistry and secondary education programs. The student should contact the Department of Chemistry undergraduate adviser for specific program details.

MINOR REQUIREMENTS

A minor in chemistry normally includes Chemistry 125a, b, c, 126a, b, c, and additional chemistry courses at the 200 level or higher to total at least 27 hours; at least 8 hours must be taken at SIUE. Chemistry 105 is not acceptable for a minor. Students must obtain written approval from the Department of Chemistry for a minor program which does not include Chemistry 125a, b, c and 126a, b, c. This approval should be requested early in the program planning.

MATHEMATICS, STATISTICS, AND COMPUTER SCIENCE

Professors:
Bennewitz, W. C., Clemans, K. G., Garder, A. O., Hattemer, J. R., Ho, C., Isaacson, J. D., Lazerson, E. E. (President), Lindstrum, A. O., Livingston, M., Pendergrass, R. N. (Chairperson), Peterson, G. E., Phillips, P. H., Steinberg, D. I., Stephen, G. G., Sturley, E. A., Wilson, H. K.

Associate Professors:
Holden, L. S., Pal, A., Verderber, N. L.

Assistant Professor:
Brown, J. M.

Mathematics, the "queen of the sciences," is both a language and a science. As a language, mathematics is used to translate relationships within our 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 that "the laws of nature are written in the language of mathematics." Throughout history, mathematics has played an extremely 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 structure. It is a rapidly growing field of study, concerned with problems from within mathematics and from the other sciences, 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.

Knowledge of the mathematial sciences is more important today than ever before. After having played a central role in the natural sciences for many years, mathematics has recently become more and more useful in the social sciences and, to a lesser extent, 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, Statistics and Computer Science offers degrees in two disciplines—Computer Science and 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.

Computer science is a field of study that is even more recent than statistics. Frequent references by the news media to the "computer age" and to the "computer revolution" give some indication of the tremendous influence of computers in modern society.

Students declaring mathematics or computer science as a major or minor should familiarize themselves with the regulations of the School of Sciences. These specify the grade point average requirements of the School and the minimum conditions a student must meet to pursue a degree program in the School.

Please note that most of the courses in this Department have other courses as prerequisites. Before enrolling in a course in MSCS, students should complete the prerequisite(s) with a grade of C or higher. A grade of D in a prerequisite course implies inadequate preparation to continue to the next course.

CAREER OPPORTUNITIES

Many people with mathematical ability pursue careers in the mathematical sciences or related areas. They do this as computer scientists, engineers, statisticians, physicists, economists, mathematicians, and in a variety of other ways. For a computer science, electrical engineering, industrial engineering, or physics student, a mathematics major may be a useful and easily attainable second major. A mathematics major is also appropriate preparation for graduate studies in several areas including mathematics, operations research, statistics, and engineering mathematics. 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

or reliability with industrial firms. Also, recent job studies indicate shortages in government and industry of statisticians 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.

DEGREE REQUIREMENTS

The Department of Mathematics, Statistics, and Computer Science offers programs leading to the Bachelor of Science or to the Bachelor of Arts degree with majors in computer science and in mathematics. The distinction between the Bachelor of Arts and Bachelor of Science degrees is the language requirement. A student majoring in this Department may choose to be awarded the B.A. degree rather than the B.S. degree provided the electives include 12 hours credit in a foreign language which is neither English nor the individual's native language.

Five programs are described below: the major in computer science, three 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.

Students who satisfy the requirements for admission to a program in the School of Sciences may apply for admission to a program in MSCS.

1. In order to be admitted to the computer science program, students must have completed MSCS 150a,b and MSCS 270a,b (or equivalent courses) with grades of C or better.
2. In order to be admitted to any of the three options in mathematical studies or the mathematics program for teachers, students must have satisfied a or b below:
   a. completed a course equivalent to MSCS 125 or higher at SIUE or another accredited institution of higher education with a GPA of 3.0 or higher in all college mathematics as well as a GPA of 3.0 or higher in all college courses taken.
   b. completed in high school seven semesters of college preparatory mathematics, including a course in trigonometry, and
      i. have no semester grade lower than C, and
      ii. have an ACT composite score of 23 or higher.

Students who do not qualify for admission to an MSCS program but hope to seek admission later are encouraged to obtain advice from a faculty member in MSCS.

DEGREE REQUIREMENTS

COMPUTER SCIENCE MAJOR, BACHELOR OF ARTS OR BACHELOR OF SCIENCE DEGREE

Computer science, the academic discipline that is concerned with computers, is young and dynamic, with many exciting developments yet to come. The program described below has been designed to provide students with a solid foundation in the context of current applications, a base from which students can grow and change with the discipline.

General Studies Requirements (Waive GSM-8)	60
Computer Science Core Requirements	44
270, 373, 374, 470, 471, 472, 473, 477	
Supporting Mathematics Courses	28
150, 260a, 223, 321, 323, 380	
Other Supporting Course	4
MIS 201a	
Computer Science Electives	8
Two courses selected from 465a, 475, 476, 478, 479a, 479b	
Electives (12 hours must be in a foreign language for B.A. degree)	48
Total	192

The supporting mathematics courses required for the computer science major satisfy the requirements for a minor in mathematics. Therefore, students who complete the computer science major will automatically have completed a minor, provided that they meet the grade point average and residency requirements of the minor.

MATHEMATICAL STUDIES MAJOR

The Mathematical Studies Major is a flexible program that permits students to select courses to meet individual needs and interests. It is recommended for students who want mathematics as the core of a liberal education and for other students (for example, computer science, economics, engineering, or physics students) whose interests and needs do not permit the completion of the mathematical sciences option.

DEGREE REQUIREMENTS

MATHEMATICS, BACHELOR OF ARTS OR BACHELOR OF SCIENCE DEGREE, GENERAL MAJOR

General Studies Requirements (Waive GSM-8)	60
Mathematics Core Requirements	32
Physics 211a,b (replaces 4 hours of GSM)	(4)=4
150, 223, 260, 321	28
General Major	28-36
Either 172-4 and 465a-4, or 270-12	8 or 12
305 or 323	4

380-4 or 480-8 . . . . . 4 or 8
Mathematics and/or statistics electives
at the 400 level 12
(Must be approved by an adviser.) Minor 27
Electives (12 hours must be in foreign
language for B.A. degree) 37-45

Total 192

MATHEMATICS MAJOR, MATHEMATICAL SCIENCES OPTION

The mathematical sciences option is a broadly based program that is designed to develop attitudes of mind and analytical skills required for efficient use and understanding of mathematics. Most of the courses will involve an interplay of applications, mathematical problem-solving, and theory. This program is recommended for students who plan to continue the study of mathematics in graduate school, as well as for students who plan to seek employment in mathematics, or in an area related to mathematics, after earning a bachelor's degree.

DEGREE REQUIREMENTS

MATHEMATICS MAJOR, BACHELOR OF ARTS OR BACHELOR OF SCIENCE DEGREE, MATHEMATICAL SCIENCES OPTION

General Studies Requirements (Waive GSM-8) 60
Mathematics Core Requirements 32
Physics 211a,b
(replaces 4 hours of GSM) . . . . . (4)=4
150, 223, 260, 321 28
Mathematical Sciences Specialization 36-44
Either 172-4 and 465a-4, or 270-12 . . . . 8 or 12
305 or 323 4
380-4 or 480-8 . . . . . 4 or 8
440 or 441 4
423 and 450 16
Electives (12 hours must be in a foreign
language for B.A. degree) 56-64

Total 192

MATHEMATICS MAJOR, STATISTICS OPTION

Part of the information about the universe in which we live has been obtained by statistical methods that provide numerical descriptions of characteristics of the world and its inhabitants. Statistics is used extensively with problems in business, biology, chemistry, education, engineering, physics, political science, psychology, and other fields. The fact that statistical procedures are very useful for reaching decisions when chance is involved has led to a definition of statistics as "the science of decision-making in the face of uncertainty." The statistics option described below is designed to acquaint students with this important field and to open for students opportunities for careers in which shortages of trained personnel now exist.

DEGREE REQUIREMENTS

MATHEMATICS MAJOR, BACHELOR OF ARTS OR BACHELOR OF SCIENCE DEGREE, STATISTICS OPTION

General Studies Requirements (Waive GSM-8) 60
Mathematics Core Requirements 32
Physics 211a,b
(replaces 4 hours of GSM) . . . . . (4)=4
150, 223, 260, 321 28
Statistics Specialization 32
Required mathematics and
statistics courses 20
172, 305, 480, 481 (270a,b-8 will substitute
for 172-4)
Statistics Electives 12
Twelve hours from 482, 483, 484, 485, 487
Minor 27
Electives (12 hours must be in a foreign
language for B.A. degree) 41

Total 192

MATHEMATICS FOR SECONDARY SCHOOL TEACHERS

Prospective teachers can meet certification requirements for teaching mathematics in Illinois by completing the program described below. This program is a joint endeavor under the auspices of the Department of Mathematics, Statistics, and Computer Science and the Department of Secondary Education.

DEGREE REQUIREMENTS

MATHEMATICS MAJOR, BACHELOR OF SCIENCE DEGREE, SCHOOL OF EDUCATION

General Studies Requirements 60
Physics Requirements 4
Physics 211a,b
(replaces 4 hours of GSM) . . . . . (4)=4
Mathematics Requirements 48
150, 172, 260, 321 28
(MSCS 270a,b-8 may be substituted for 172-4.)
Mathematics and/or statistics electives at the 300-level
or higher (approved by an adviser) 8
Mathematics and/or statistics electives at the
400-level (approved by an adviser) 12
Minor 27
Professional Education Requirements
(See Secondary Education) 37
Electives 16

Total 192

MINOR REQUIREMENTS

The Department offers three minors: computer science, mathe-

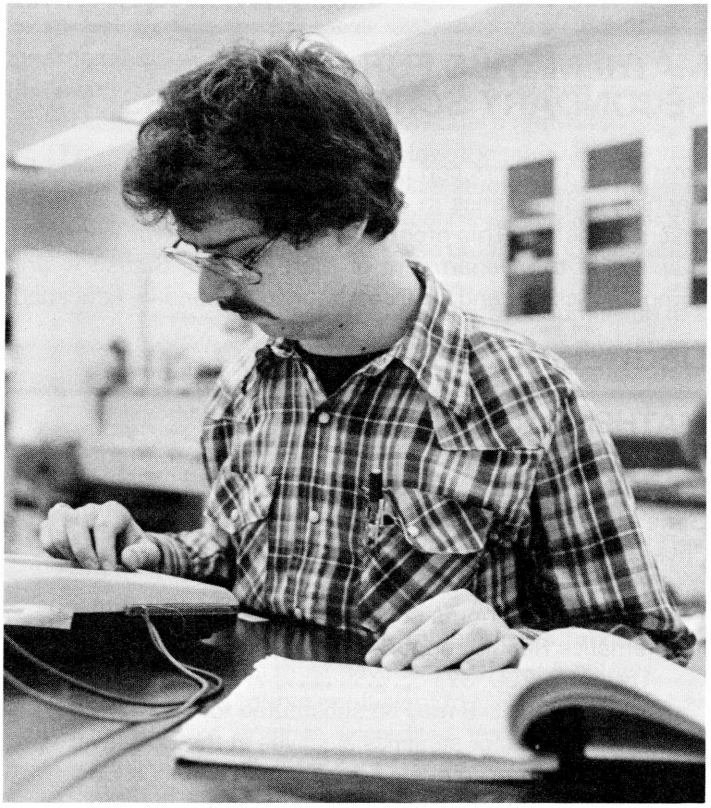
matics, and mathematical sciences.

The minor in computer science must include 270, 373, and two additional courses selected from the computer science core and the computer science elective pool (see the description of the computer science major for a listing of these courses).

A minor in mathematics must include MSCS 150 and 19 hours selected from MSCS 172 and mathematics or statistics courses numbered 200 or higher, of which at least 8 hours must be from courses numbered 300 or higher. An easily delineated minor consists of 150, 260, 321, and either 305 or 380.

Students may have a major in mathematics and a major or minor in computer science and vice versa. Selection of a major in one mathematics option and a major or minor in another mathematics option is not permissable.

No General Studies course may be counted toward a minor in this Department. The School of Sciences requires that at least 8 hours counted toward the minor at the 300-level or higher must be taken in the minor department and that a grade point average of at least 3.00 must be maintained in the minor.



PHYSICS

Professors:
Aly, H. H., Boedeker, R. R., Braundmeier, A. J., Hakeem, M. A., Henderson, G. A., Kang, I-J., McAneny, L. R., Swamy, P. N. (Chairperson)

Associate Professors:
Chow, H. C., Hill, R. C., Zurheide, F. W.

Physics is the study of the basic building blocks of the universe and of the laws which govern their interactions. In physics we attempt to develop images or descriptions of the universe using mathematical and conceptual models which are continually revised in the light of new observations and discoveries. The models also help us to predict properties of nature which have so far not been observed.

The study of physics will lead students through classical physics (the physics of Newton and Maxwell), Einstein's theory of relativity, Bohr's theory (which forms a bridge between classical physics and modern physics), and, of course, modern physics, including quantum theory and atomic and nuclear physics.

Throughout their study of physics, students learn applications which 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 Physics Department provides three degree programs for students wishing to study physics: the Bachelor of Science, the Bachelor of Arts and the Bachelor of Science in Education, and the major in Physical Science. The Bachelor of Science degree is recommended for those students planning to work in industry immediately upon graduating. The program is somewhat more rigid than the Bachelor of Arts program in that it contains fewer electives, although approximately the same number of required hours. Within the Bachelor of Science program, students may choose a curriculum emphasizing Applied Physics. In addition to the traditional physics courses, the Applied Physics curriculum includes courses in Electrical Engineering to better prepare students for immediate employment in high technology industries and for graduate study in Physics or Electrical Engineering. Qualified students who complete this curriculum fulfill the admission requirements for the M.S. program in Electrical Engineering at SIUE and may complete a B.S. degree in Physics followed by a M.S. degree in Electrical Engineering within five years.

The Bachelor of Arts degree requires one year of foreign language and allows students more choice in their Physics courses. The majority of physics students take many more than the minimum of 48 hours in physics, thereby satisfying the physics requirements for either degree. If they also meet the foreign language requirement, the choice of degree then becomes merely a matter of personal preference. Students wishing to pursue a career in teaching may obtain certification with either degree by meeting the additional requirements or may elect the Bachelor of Science in Education degree with a major in physics.

CAREER OPPORTUNITIES

Because physics is the most fundamental of the sciences, physics graduates are necessarily generalists. But they are generalists trained to solve problems from first principles rather

than from handbook procedures. Thus they are well prepared for a variety of technical functions in industry for which an engineer might be too specialized. Such industrial functions would include research and development in electro-optics, radiation damage, and measurement and control.

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 or music. Teaching at any level from primary through college is certainly one of the career possibilities.

DEGREE REQUIREMENTS

BACHELOR OF ARTS DEGREE, PHYSICS

General Studies Requirements (Waive GSM-8.) 52
Requirements for Major in Physics 74
- Foreign Languages (equivalent of one year) ..... (12)
- Chemistry 125a, b, 126a, b 10
- Mathematics 150a, b, 260a, b 16
- Physics 100, 211a, b, c, 212a, b, 302a, b, 308a, b, 312a, b, 405a, b, plus 2 hours of lab above 400 and 5 hours electives above 302 48

Minor 3-27
Electives 55-39

Total 192

BACHELOR OF SCIENCE DEGREE, PHYSICS

General Studies Requirements (Waive GSM-8.) 52
Requirements for Major in Physics 82
- Chemistry 125a, b, 126a, b 10
- Mathematics 150a, b, 260a, b, c, 305 24
- Physics 100, 211a, b, c, 212a, b, 302a, b, 308a, b, 312a, b, 405a, b, 415a, 418 plus 1 hour elective 48

Minor 3-27
[1]Electives 47-35

Total 192

[1]For the Applied Physics emphasis, the electives should include the following courses: ENGR 200, 326, 327, 301a,b,c; 350, 351, 352, 353, 401a,b, (total 30 hours). These courses will fulfill entrance requirements for the M.S. program in Electrical Engineering at SIUE.

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE DEGREE, PHYSICS, SCHOOL OF EDUCATION

The Department of Physics in cooperation with the Department of Secondary Education has developed a broad teaching field program in the field of physical science. This program was developed in order to encourage people to teach physical science, chemistry, earth science, and physics at the pre-college level.

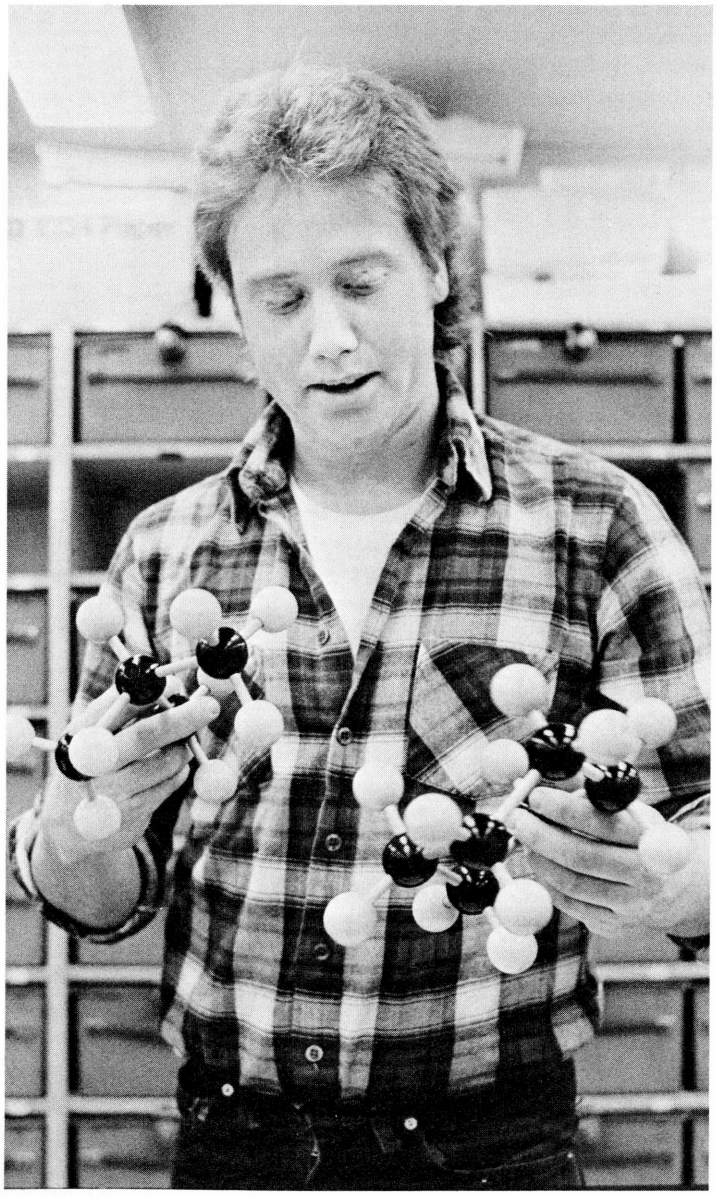
General Studies Requirements (Waive GSM-8.) 52
Requirements for Major in Physical Science 75
- GSM 101, 110, 111, 306 and two courses (8 hours) from GSM 283, 300, 301, 302, or 305 24
- Chemistry 125a, b, c, 126a, b, c 15
- Physics 206a, b, c 15
- Science and Technology 402, 403, 415 13
- Mathematics 150 8

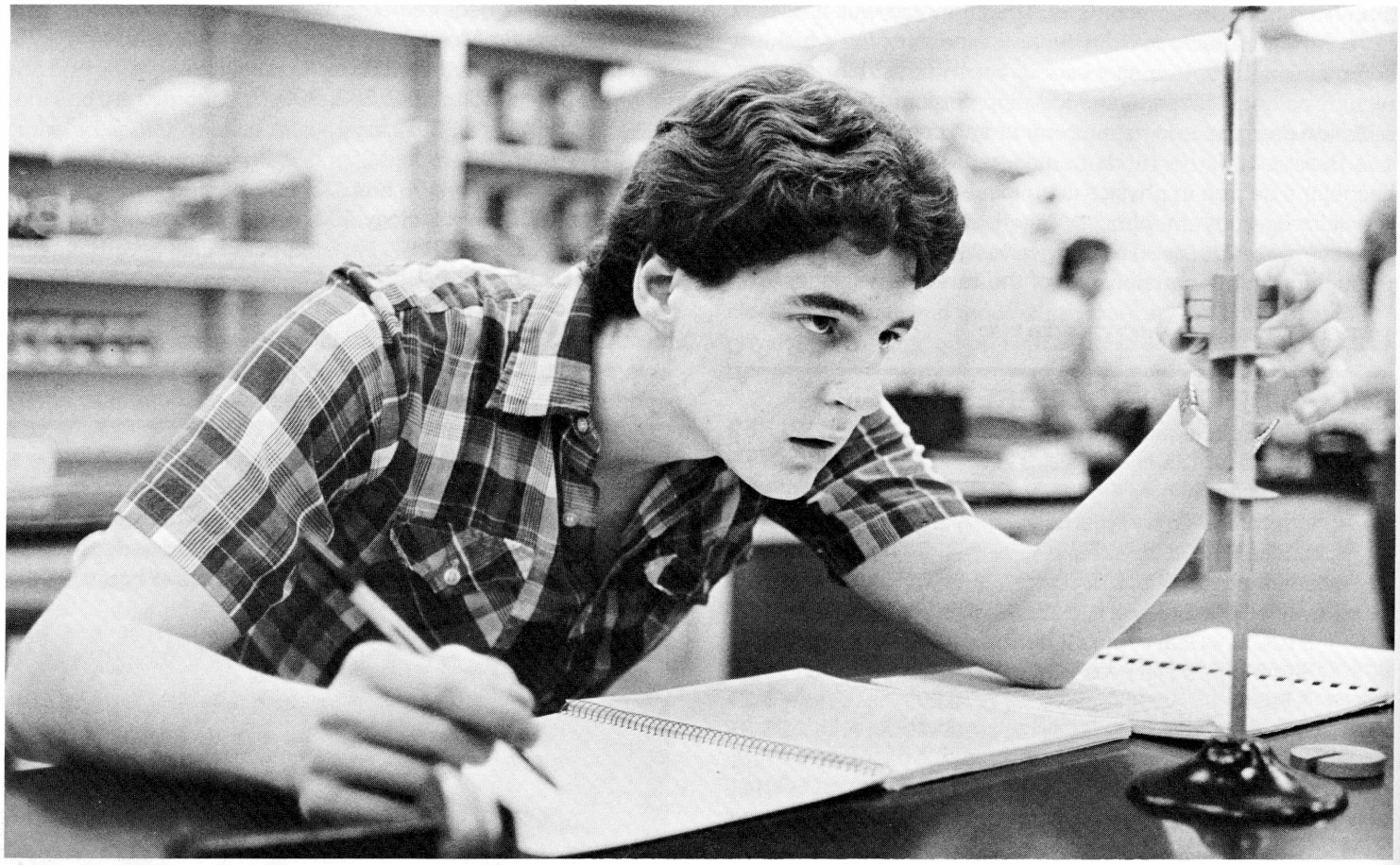
Professional Education Courses (See Secondary Education) 37
Electives 28

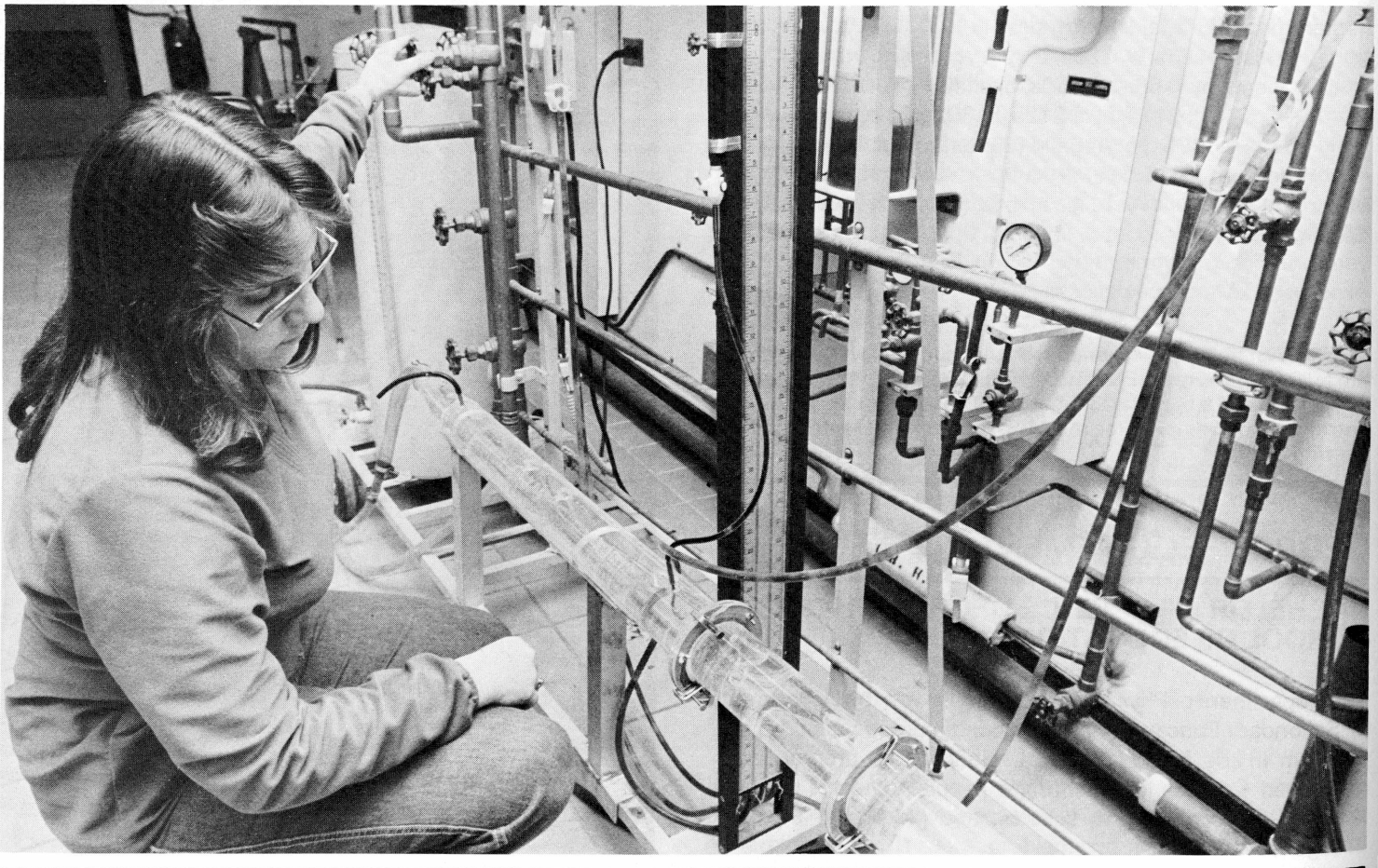
Total 192

MINOR REQUIREMENTS

A minor in physics includes 211, 212, 302, and 5 elective hours above 302 to total 27 hours. Minors are encouraged to consult with the minor adviser concerning the 5 elective hours.

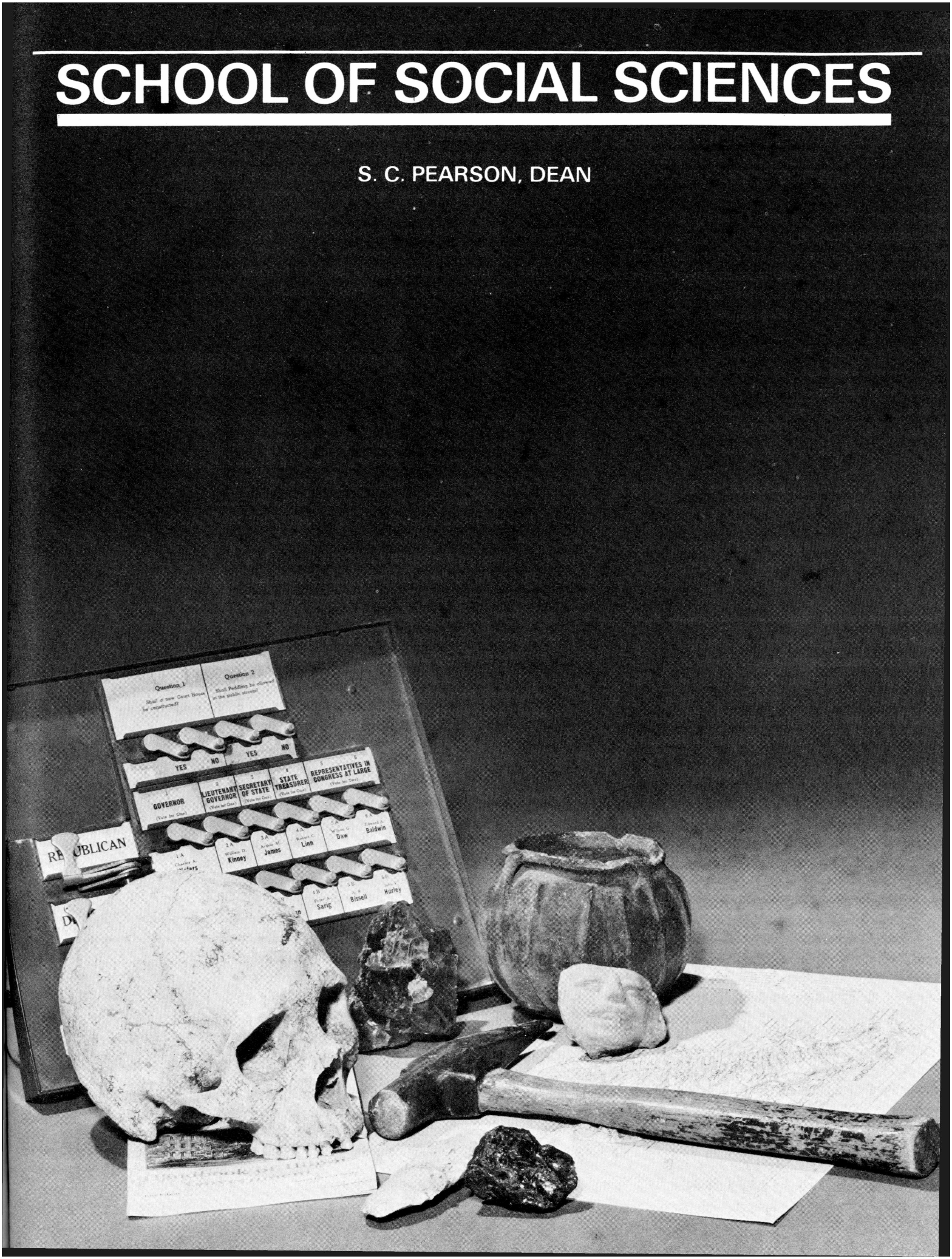






SCHOOL OF SOCIAL SCIENCES

S. C. PEARSON, DEAN



The School of Social Sciences offers bachelor's degree programs in anthropology, earth science, economics, geography, government, history, sociology, and social work. The School also offers master's degree programs in behavioral science, city and regional planning, geography, government, history, public administration, and sociology.

Undergraduate programs in these fields prepare students for a variety of careers in government, teaching, and private enterprise as well as for more advanced training at the master's and doctoral levels. Undergraduate courses in the School also provide an important component of a general liberal arts education appropriate to all University students.

While the primary focus of the School is instructional, most of the faculty are also active in basic or applied research and in professional service. There is a special commitment to using the professional skills of the faculty to assist in the social, economic, and cultural development of the southern Illinois region: the School takes an active role in improving the quality of the environment, in conservation of natural resources, in stimulating interest in local history, and in improving the quality of local government services.

ANTHROPOLOGY

Professors:
Aschenbrenner, J. C., Frisbie, C. J., Frisbie, T. R., Schusky, E. L.

Associate Professors:
Denny, S. G. (Chairperson), Maloney, T. J.

Anthropologists study humans and their physical and cultural developments through time and space. Anthropology seeks to develop an understanding of the potentials and limits of being human, respect for the various ways of life followed by others, and knowledge of the reasons for these practices. Students in anthropology acquire familiarity with physical anthropology (human evolution and the relationship of humans to other living organisms); anthropological linguistics (the structure, history, nature, variety, and importance of communication); archaeology (the study of the prehistoric past); social anthropology (the diversity and organization of human groups and institutions); and ethnology (the variety and range of human customs, beliefs, and other aspects of culture). The particular strengths of the Department of Anthropology at SIUE lie in the faculty expertise in the areas of contemporary American Indians, urban anthropology, human ecology, and the archaeology of North America. In addition, the faculty participates in several interdisciplinary programs, such as Environmental Studies, Latin American Studies, Women's Studies, Behavioral Science, and Gerontology. Unique 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 Honor Society in Anthropology.

Students in good standing wishing to declare a major or minor may enter the program by filing a formal declaration of major or minor and consulting with one of the department undergraduate advisers. Quarterly preregistration advisement is mandatory for all declared majors and minors. All majors and minors must have a 3.00 grade point average in anthropology courses.

CAREER OPPORTUNITIES

Traditionally, anthropology majors have pursued graduate degrees at both the master's and doctoral level; such degrees lead to careers in college teaching, museum work, contract archaeology, or government service. More recently, however, undergraduate anthropology majors have entered the job market in a number of non-traditional areas including secondary education, industry, cultural resource management, environmental studies, and human services. Because of the diversity of subject matter in anthropology, students have frequently combined anthropology with other disciplines such as history, sociology, geology, earth science, biology, psychology, medicine, law, and the arts. Such combinations enable students to understand diverse community problems and many issues of contemporary life and thus greatly expand the opportunities for interesting and rewarding careers.

DEGREE REQUIREMENTS

BACHELOR OF ARTS DEGREE, ANTHROPOLOGY

The Bachelor of Arts degree is designed primarily to prepare students for advanced study in anthropology and includes a foreign language requirement.

General Studies Requirements (Waive GSS-8.)	60
Foreign Language Requirement	12
Requirements for Major in Anthropology	48
GSM 365	4
Anthropology 400, 408, 411, 442	16
One ethnography course to be taken from 305a, b, 307, 311, 482	4

Anthropology 301 or 401 (English 400)	4
Anthropology electives chosen in consultation with undergraduate adviser	20
Minor	27
Electives	45
Total	192

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE DEGREE, ANTHROPOLOGY

The Bachelor of Science degree is designed for students desiring to pursue anthropology as an avocation or in the areas of government service, industry, salvage archaeology, museology, or Foreign Service where advanced graduate degrees are not required.

The requirements for a Bachelor of Science degree differ from requirements for the Bachelor of Arts degree by requiring 12 hours in field methods courses—375a, b (4 to 8, 4 to 8) and 475a, b (4 to 8, 4 to 8), or the presentation of acceptable evidence of previous fieldwork experience—in lieu of the 12 hours of foreign language required in the Bachelor of Arts program.

MINOR REQUIREMENTS

A minor in anthropology consists of 28 hours. Twenty of these hours must be in junior or senior level courses. Students are required to take an introductory anthropology course, one physical anthropology course, and one cultural anthropology course. The remaining hours consist of anthropology electives selected in consultation with the undergraduate anthropology adviser.

ECONOMICS

Professors:
Ault, D. E., Hollenhorst, J. J., Kohn, R. E., Lin, A. Y., Luan, D. C., Rutman, G. L. (Chairperson), Schwier, A. S., Sultan, P. E.

Associate Professors:
Elliott, D. S., Hashimi, R. M., Levin, S. L., Meisel, J. B.

Assistant Professor:
Edmonds, R. G.

Instructor:
DeSha, S.

Economics is the study of how different 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 decide how their 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 that range from the shopper's decision to purchase one brand of bread over another, to the effects of an oil embargo on the price of medicine and plastics, to the use of government spending and taxation to fight inflation. Lawyers, bankers, managers of large and small businesses, government planners, and journalists find economics an extremely useful tool in solving problems which they encounter in their professions.

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, urban and regional economics, industrial organization and antitrust policy, comparative economic systems, economic history, public finance and taxation, and mathematical economics. Students' programs are planned in cooperation with an undergraduate economics adviser.

The Department of Economics, which is housed in the School of Business, offers two degrees under the auspices of the School of Social 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 of these degrees must complete 48 hours in economics and complete a minor in any other social science, business area, mathematics, or another field. Those students planning to enter Ph.D. programs in economics are strongly advised to take their minor in mathematics. Students who plan to seek employment upon completion of their baccalaureate or pursue graduate work in some other field are advised to elect a minor in a field related to their chosen career.

CAREER OPPORTUNITIES

Economists are employed in all areas of private industry; in state, local, and federal government agencies; in international organizations such as the United Nations and the World Bank; in labor unions; and in colleges and universities. Examples of duties performed by professional economists include market research, forecasting, corporate planning, policy evaluation, writing economic impact studies, participating in antitrust litigation, and testifying in utility rate hearings.

In 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, government agencies, public utilities, state legislatures, industrial firms, private and consulting organizations, and community and small liberal arts colleges. Some graduates have been admitted to highly competitive Ph.D. programs.

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE OR BACHELOR OF ARTS DEGREE, ECONOMICS

General Studies Requirements	60
Requirements for Major in Economics[1]	48
GSM 144, 244	(9)

Economics 201, 202, 321, 401, 402	20
Economics Electives	28
Minor	28
(The minor must be approved by the student's adviser.)	
Electives	56
Total	192

[1]GSS 150 does not count toward completion of the requirements for a major in economics.

The Bachelor of Arts degree program is identical to the Bachelor of Science degree program except that students are required to study a foreign language. Thus the language requirement of 12 hours reduces the elective hours by 12. Students in all programs are required to maintain a 3.00 grade point average in economics.

MINOR REQUIREMENTS IN ECONOMICS OR BUSINESS ECONOMICS

The minors in economics or business economics consist of 28 quarter hours in economics including 201, 202, 401, and 402. The remaining 12 hours are electives in economics chosen in consultation with an adviser from the Department of Economics.

GEOGRAPHY AND EARTH SCIENCE

Professors:
Baker, W. B., Hess, C. F., Kahn, A., Kircher, H. B., Koepke, R. L., Lossau, C. S., Mendelson, R. E., Miller, H. W., Thornton, C. A. (Chairperson), Yarbrough, R. E.

Associate Professors:
Bagchi, D. M., Clements, D. W., Lampe, F. A., Marlow, L. D., Strohmeyer, D. K., Thompson, N. R.

Assistant Professor:
Johnsen, N. C.

Adjunct Instructor:
Clelland, D. W.

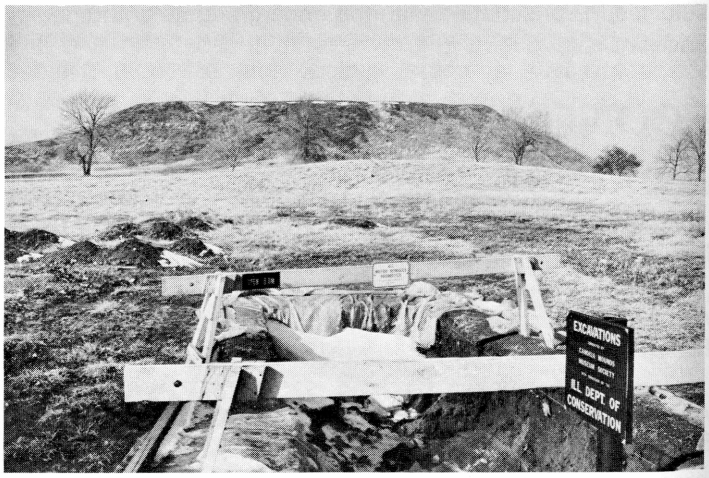
The Department of Earth Science, Geography and Planning offers the Bachelor of Science and the Bachelor of Arts in Geography and the Bachelor of Science in Earth Science. Majors in the teaching fields of geography and earth science lead to the Bachelor of Science degree offered in the School of Education.

Geography. Geography is concerned with the earth as the home of humankind with a particular emphasis on understanding why human activities are located where they are and how these human activities are interrelated with the natural environment. While geography is one of the most time honored disciplines reflecting humankind's curiosity about people and places, it is also a new, very practical applied discipline which can offer expert advice on such questions as where new housing developments, airports, power plants, schools, highways, or fast food restaurants should be located.

Geography is a broad field which accommodates students with a wide diversity of interests and goals. Of particular importance at SIUE are courses leading to emphases in cartography (map making) and computer graphics, applied economic geography and area development, urban geography and urban planning, conservation and environmental studies, regional studies, historical and cultural geographic studies and physical geography. Brochures which may be obtained from the department describe in more detail each of these areas and provide lists of geography courses and supporting courses from other disciplines recommended for each of these areas of emphasis.

A broad background in other fields is of great importance to a geographer. Thus, geography students should use their elective hours to take work in other areas. Students interested in physical geography should consider taking elective courses in geology, botany, zoology, chemistry, and physics. Students interested in economic geography or planning can profit from work in economics, government, sociology, marketing, and transportation. Students specializing in cultural geography will find courses in sociology, anthropology, history, and government particularly useful. Students interested in the geography of a particular area of the world are encouraged to take courses that are related to such areas of interest.

Geography students are strongly urged to take work in quantitative methods. An equivalent of high school algebra is a minimal expectation. GSM 110, 111, 212, 213 and GSS 240 are recommended General Studies courses that will complement a major or minor in the department.



Earth Science. Earth Science is concerned with understanding the natural processes that produce the atmosphere and the surface and interior features of the earth. It is a scientific discipline which can determine the best location for wells and mines, the age and significance of fossils, the causes of mine subsidence, and the likelihood of earthquakes.

Personal qualifications for earth scientists include a liking for the outdoors, an interest in travel, an ability to adapt to many and changing conditions (some not so physically comfortable),

an ability to notice details and recognize their significance, a liking for solving puzzles, and most of all, an inquiring mind not always satisfied with what it reads or hears.

Students interested in earth science should consider taking elective courses in geology, botany, zoology, chemistry, and physics.

CAREER OPPORTUNITIES

Students with bachelor's degrees in geography have the opportunity to find employment in a wide variety of business and government organizations. Geography majors have found employment in such diverse areas as travel and tourism, location and marketing analysis, land use planning, environmental impact analysis, conservation, intelligence, industrial development, ecology, foreign area analysis, cartography, and historic preservation. Cartography is a traditional specialty within geography departments throughout the American university system. At the present time the greatest employment opportunity is in cartography, with jobs available in various private and government mapping agencies; for this reason cartography is offered as a track within the geography program. Students interested in urban and regional planning will find that the geography program provides a solid base for pursuit of advanced planning degrees.

The programs leading to a Bachelor of Science degree in the School of Education provide preparation to teach geography or earth science in the junior high or secondary schools. With additional graduate work one could also teach in a community college. Departmental courses also aid in preparation for the broader teaching fields of physical science and social science.

The earth science major is designed to give students a broad scientific background which prepares them for professional positions with environmental agencies or in work related to natural resources or conservation. This major serves as a partial foundation for graduate study in such fields as geology, hydrology, meteorology, environmental studies and urban-regional planning. For those students wishing to concentrate more on geology as an undergraduate focus, the Earth Science Program offers a geology track which closely parallels the requirements of the American Institute of Professional Geologists. Cartography as a focus is offered through the Earth Science Program, also.

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE OR BACHELOR OF ARTS DEGREE, GEOGRAPHY

General Studies Requirements 60
Requirements for Major in Geography[1] 56
- Core Requirements: 302, 304, 306, 307 or 303, 308, 310a, 404a or 404b or 404c, 410a and one regional course (substitutions require consent of geography adviser) 36
- Geography electives 20

Electives 76

Total 192

[1]An overall 3.00 average must be achieved in major courses.

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE DEGREE, GEOGRAPHY/EARTH SCIENCE (CARTOGRAPHY TRACK)

General Studies Requirements 60
Requirements for Major in Geography/Earth Science[1] 56/60
- Geography Core Requirements (see above) 36
- Earth Science Core Requirements (see below) .. 44
- Cartography Requirements: 310b, 410b, 416a, 416b or 418 16
- Geography electives 4

Electives 76/72

Total 192

[1]An overall 3.00 average must be achieved in major courses.

The requirements for the Bachelor of Arts degree are the same as for the Bachelor of Science degree except that 12 hours of foreign language are required and the number of elective hours are reduced by 12.

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE DEGREE, EARTH SCIENCE

General Studies Requirements 60
Requirements for Major in Earth Science[1] 52
- Core requirements: 201, 202, 203, 215, 216, 217, 303 or 307, 325, 400, 403a, and 441 or 442 44
- Earth Science electives 8

Electives 80

Total 192

[1]An overall 3.00 average must be achieved in major courses.

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE DEGREE, EARTH SCIENCE (GEOLOGY TRACK)

General Studies Requirements 60
Requirements for Major in Earth Science[1] 52
- Core Requirements: 201, 202, 203, 215, 216, 217, 325, 403a, 441, 442 and Field Methods 44
- Earth Science Electives 8

Electives 80

Total 192

[1]An overall 3.00 average must be achieved in major courses.

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE DEGREE IN GEOGRAPHY OR EARTH SCIENCE, SCHOOL OF EDUCATION

Students who intend to teach at the secondary level may choose the degree Bachelor of Science in the School of Education with a major in geography or earth science. This major constitutes the teaching field specialization for the education degree. For those degrees a minor is required. A 36-hour major is acceptable with two teaching minors.

For the earth science major, students must take Earth Science 444, Teaching of Earth Science, and are urged to take a minor in such fields as biology, chemistry, computer science, physics, mathematics, or environmental studies. For geography majors, either Geography 443 or 480 is recommended.

MINOR IN GEOGRAPHY OR EARTH SCIENCE REQUIREMENTS

Students working for a 28-hour minor in geography must take Geography 302, 304 or 306, and 308. (Substitutions require consent of adviser.)

A minor in earth science consists of 28 hours selected from those courses required for a major.

MINOR IN ENVIRONMENTAL SCIENCE REQUIREMENTS

The minor in environmental science consists of 30 hours from the following: 12 hours of Core Curriculum courses GSM 221, 250, Geography 424; and 18 hours of electives of which at least two courses must be taken from each group of electives.

Group I: Urban Environment and Conservation
GSM 212
GSS 245
Geography 402a, b, or c
Geography 404a, 412-2, 471a, 475-5.

Group II: Science and Engineering
GSM 131-2, 234, 300
Biology 303a
Chemistry 110
Physics 206, 211, 212
Science and Engineering 101c, 330.

GOVERNMENT

Professors:
Feeney, W. R., Hsiao, G. T., Kerr, J. R., Stahnke, A. A., Teters, B. J. (Vice President and Provost)

Associate Professors:
Jacobitti, S. D., McCabe, D. F. (Chairperson), Quinn, M. A., Schwartz, D. F., Westefield, L. P.

Assistant Professors:
Donnelly, B. E., Farrell, J. V., Hostetler, D. W., Paulsmeyer, D. L.

The Department of Government and Public Affairs offers courses in the discipline of political science, which is broadly concerned with the study of government and politics. In American politics students examine various aspects of the American political system, including such subjects as legislatures, executives, parties, campaigns and elections, and issues of public policy. In comparative politics students explore the political, legal, and administrative processes of 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 the ways in which the bureaucracy conducts the public's business. 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.

The study of government 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. In an era in which government has come to play a central role in our daily lives, knowledge of government and its processes is vital if citizens are to be able to cope with or influence it.

There are no formal entry requirements to the Bachelor of Arts or Bachelor of Science programs in Government. Students should, however, consult the department's undergraduate adviser as soon as possible after declaring a major. The adviser will provide students with initial orientation to the department's programs and will guide them to a faculty member for detailed advisement. There are two pre-law advisers for those students contemplating law school upon graduation. These advisers will aid students in preparing a course of study and can provide useful information about law school admission. Faculty members who are part of the department's Master of Public Administration program can provide course work, information, and guidance for undergraduates planning a career in the public service.

The department conducts two internship programs in which students can get both practical experience and an opportunity to evaluate potential careers. The Legal Aid Internship places top pre-law students in the offices of public defenders and legal aid societies. The Internship in Government provides an opportunity for students to work in the offices of local, county, or state officials. Among the resources available to students is the Political Science Laboratory, which contains a growing collection of reference materials, including guides to the data of the Inter-University Consortium for Political and Social Research. The department's microcomputer and computer terminals which give students access to the large computer system of the Educational Computing Network also are available.

CAREER OPPORTUNITIES

Students who major in government have entered careers in business, government service (at the federal, state, or local levels), law, teaching, journalism, and public and private interest groups. Recent projections by both government and public agencies indicate the demand will continue near the present level for government employees, for lawyers, and for college graduates interested in careers in business. For students seeking careers in government, a major in political science provides knowledge of political and bureaucratic processes and analytical skills. Such students will have as well 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 of these areas the experience gained in an internship can be a significant advantage. Opportunities for employment in teaching and journalism are likely to become more limited, but careful development of skills and specialties can make it easier for students to find positions in these areas. In addition to preparation for specific careers, a major in government can provide general career-building skills. Courses which focus on the analysis of political and social data will help students develop analytical and reasoning skills. Students will also have opportunities to become familiar with statistical techniques and with computer usage. They will have numerous chances to hone a crucial skill—the ability to write clearly and forcefully.

DEGREE REQUIREMENTS

BACHELOR OF ARTS OR BACHELOR OF SCIENCE DEGREE, GOVERNMENT

General Studies Requirements 60
Requirements for Major in Government 48
- A minimum of 48 hours including 200, and 203 or GSS 220, and at least 4 hours in four of the six areas of specialization:
- American government and politics: 340 or 345 or equivalent.
- Comparative politics: 350 or 355 or equivalent.
- International relations: 370 or equivalent.
- Political theory: 385 or equivalent.
- Public administration: 320 or equivalent.
- Public law: 340c or equivalent.

Foreign Language Requirement 12
Minor 28
Electives 44

Total 192

Requirements for the Bachelor of Science degree are the same as for the Bachelor of Arts degree except that a foreign language is not required, and the elective hours are thus increased by 12. For both degrees a minimum grade point average of 3.00 is required in major courses. ◆

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE DEGREE, GOVERNMENT SCHOOL OF EDUCATION

Students who intend to teach at the secondary level may choose the degree Bachelor of Science in the School of Education with a major in government. This major constitutes the teaching field specialization for the education degree. The requirements for this major total 48 or 36 hours in government depending on whether the student has one minor or two. They must include 200 and 203 or GSS220, and at least 4 hours (but no more than 20 hours) must be taken in four of the six areas of specialization listed above. Students interested in the Secondary Education requirements should refer to the Secondary Education section of this catalog.

MINOR REQUIREMENTS

A minor is 28 hours and must include 200 and 203 or GSS 220 and at least one course in three of the six areas of specialization. A minimum grade point average of 3.00 is required in minor courses.

HISTORY

Professors:
Astour, M. C., Erickson, R. F., Gallaher, J. G., Haas, J. M., Kimball, S. B., McCurry, A. J., Millett, R. L., Nordhauser, N. E., Pearson, S. C. (Dean, School of Social Sciences), Riddleberger, P. W., Weingartner, J. J., Weiss, S. L.

Associate Professors:
Branz, N. R., Chen, C-C., Grant, S. B. (Chairperson), Jacobitti, E. E., Santoni, W. D., Steckling, R. A., Taylor, J. A.

Assistant Professor:
Carlson, S. J.

Adjunct Assistant Professor:
Wilton, D. W.

History is the study of the human past in the quest for greater understanding of ourselves and of others. History begins with the questions of how things came to be as they are or were, what human decisions and natural events contributed to this state of affairs, and how the participants in the life of past times and societies viewed themselves and their actions.

Historians approach the study of the past in many ways. Some concern themselves with particular periods or with particular nations or peoples. Others concern themselves with particular institutions, such as the family, science, or the church; still others trace the history of ideas. For some historians the methodology of the social sciences becomes a critical tool for the study of the past, while for others historical methodology is similar to the methods of literary criticism.

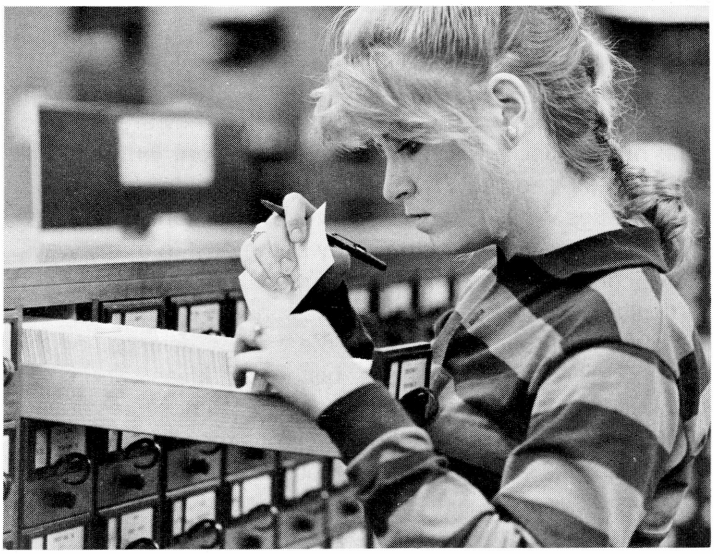
By studying the past, historians come to better understand the present. From the past they seek insights into the behavior

of individuals, institutions, and societies which contribute to the quality and significance of their own lives. Though every age is unique and the study of history cannot prepare an individual to predict the future, it does prepare persons for meaningful participation in the families, communities, nations, and world of today.

Students who intend to study for the Bachelor of Arts or Bachelor of Science degree with a teaching major in history should arrange for an interview with the undergraduate adviser in history at the time of declaration of major. The Bachelor of Arts degree is recommended for students who plan to pursue careers in history or related academic fields. The Bachelor of Science degree is recommended for students planning careers in other areas, and the Bachelor of Science degree with a teaching major in history is designed particularly for students planning to teach at the secondary level. The honors program for the Bachelor of Arts degree is particularly recommended for students who plan graduate study in history. Application for admission to the honors program should be made to the history adviser.

CAREER OPPORTUNITIES

Traditionally, many students of history have become teachers; some graduates are still finding positions as classroom instructors, though there is now only limited demand in this area. Other history majors have found positions as archivists or in government service. Some have coupled their history program with library science courses and found positions in university and public libraries. Many law students hold undergraduate history degrees, and history together with foreign language can be a very useful study in preparation for employment in international corporations. A few able historians have traditionally found employment in journalism, editing, and research.



DEGREE REQUIREMENTS

BACHELOR OF ARTS DEGREE, HISTORY

General Studies Requirements	60
Requirements for Major in History	52
Four courses (at least one in U.S. History) from GSS 101, 102, 103, 105, 200, 201, 202, History 100	16
History 452	4
Eight history courses elected by the student at the junior-senior level (301-499; two history 300 minicourses may be substituted for one of the eight history courses)	32
Foreign Language Requirement	12
Minor	27
Electives	41
Total	192

The Bachelor of Arts degree (Honors Program) is identical to the above program except that students must complete 400 and either 451a or 451b as two of the eight elective courses in history and must complete two years of foreign language, thereby increasing the language requirement and decreasing the elective requirement by 8 hours.

The Bachelor of Science degree program is identical to the Bachelor of Arts degree program except that students are not required to study a foreign language. Thus the language requirement is eliminated, and the elective hours are increased by 12. Students in all programs are required to maintain a 3.00 grade point average in history.

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE DEGREE, HISTORY, SCHOOL OF EDUCATION

Students who intend to teach at the secondary level may choose the degree Bachelor of Science in the School of Education with a major in history. This major constitutes the teaching field specialization for the education degree. The requirements for this major are the same as those for the Bachelor of Science degree in history offered in the School of Social Sciences.

MINOR REQUIREMENTS

The minor requires that students select three courses from GSS 101, 102, 103, 105, 200, 201, 202, History 100. In addition, five history courses numbered between 301 and 499 should be completed. Two history 300 minicourses may be substituted for one of the five upper-level courses.

MINOR IN LATIN AMERICAN STUDIES REQUIREMENTS

The minor in Latin American Studies is designed for those students who are interested in a multidisciplinary understand-

ing of the lands and peoples of Latin America. It consists of 24-26 hours which must include History 352c, Government 355a, and two quarters of 300-level courses in Spanish-American literature; one course chosen from the following: any 400-level Latin American history course, History 352a, History 352b, or Anthropology 367; and two courses chosen from among these:
Economics 422, Geography 467a, Geography 467b, Anthropology 307.

SOCIOLOGY

Professors:
Blain, R. R., Campbell, R. B., Henslin, J. M., Lauer, R. H., Shaw, K. A. (Chancellor)

Associate Professors:
Altes, J. A. (Associate Vice President), Barlow, H. D., Farley, J. E., Handel, W. H., Riley, L. E. (Chairperson)

Sociology involves the scientific study of the group life of human beings and the product of their group living. The sociologist is interested in the values, customs and traditions which emerge from group living, and in the way group living is affected by these values, customs and traditions. Sociologists study the way people and groups interact with one another and the social patterns and processes which emerge from such interactions. Sociology is a general, not a specialized, social science. Sociologists seek out the principles that govern all human interaction and human relationships, regardless of the area of human life in which they occur. The sociologist's interest lies in the general characteristics of all social behavior; however, it can involve the study of particular institutions such as the family, education, religion, the economy, health care, and legal institutions. For this reason, students majoring in other fields often find specific sociology courses relevant for their studies.

CAREER OPPORTUNITIES

Persons with an undergraduate degree in sociology may find employment in a variety of jobs. Government agencies and business firms often are interested in obtaining the services of well-educated people without regard to their areas of specialized study. Such employers believe that a good general education makes an excellent foundation for the specialized skills that can be learned on the job. A slightly more specialized perspective is found among employers who prefer college graduates with majors in one of the social sciences. Government and private social service agencies at the state and local levels sometimes employ persons with undergraduate degrees in sociology. Some Sociology majors obtain positions in social case work, in probation, and in employment and welfare agencies. There are job opportunities in research, administration, and college teaching for persons who continue their sociology training and obtain advanced degrees.

Students working toward a major or minor in sociology should contact the undergraduate adviser for further information.

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE OR BACHELOR OF ARTS DEGREE, SOCIOLOGY

General Studies Requirements	60
Requirements for Major in Sociology	48
Sociology 310, 312, 451	12
Sociology electives	36
Minor	28
Electives	56
Total	192

The Bachelor of Arts degree requires 12 hours in foreign language in addition to the other requirements.

The Bachelor of Science and Bachelor of Arts degrees in sociology require 48 hours of course work including Sociology 310, 312, and 451. Social work courses do not count toward a sociology major or minor. Sociology majors must have a grade point average of 3.00 in sociology courses and minor courses. Sociology minors must maintain a grade point average of 3.00 in sociology courses.

A minor in sociology requires 28 hours of sociology (GSS 130 and GSS 330 may be included).

The department accepts up to 12 hours of transfer credit for majors or minors if the course grades are C or better.

SOCIAL WORK

Associate Professors:
Cingolani, J., Swaine, R. L.

Assistant Professors:
Spencer, D. M., Smith, M. C.

The undergraduate social work program, which is housed in the Department of Sociology and Social Work, focuses on the knowledge, values, and skills needed for social work practice. The program has been accredited by the Council on Social Work Education to prepare students for beginning practice or entry into graduate social work education. Although the program prepares generalists, it offers ample opportunity to explore specific interests through the selection of electives and the field placement setting.

The program consists of specified foundation courses in the General Studies program, supporting courses in various departments, and social work courses concentrated at the upper division level.

Social work is a profession concerned with helping to solve problems in the interactions between people and their social environments. The social worker acts as a facilitator of change with individuals, families, groups, organizations, and communities; promotes positive change in social conditions; and serves as an advocate for individuals and groups which are discriminated against or disadvantaged.

Professional social work is a creative blending of knowledge, professional values and ethics, and skills of working with people.

Students admitted into the social work program are required to take Social Work practicum, SocW 482, for 16 credit hours. The practicum requires four hundred hours in a social work practice setting and may be taken over a two-quarter period. The practicum, an individualized and closely supervised learning experience, gives students an opportunity to apply classroom learning and develop practice skills. Field placements are arranged in advance with the Practicum Coordinator and are designed to meet the students' needs and interests within the context of the educational objectives of the program.

ADMISSIONS

The recruitment and admissions procedures are designed to encourage a diverse student population, to assist prospective social work majors to gain a realistic perspective on the demands and rewards of a career in social work, and to help students assess their interest and ability to function effectively as professional social workers.

The social work program seeks students who can master the necessary knowledge and skills, and who, in addition, show the capacity to assume the roles and responsibilities of the professional social worker. Social work requires not only knowledge and skills, but also professional values and the ability to relate well to people in a variety of situations. Much of this can be taught in a formal setting, but personal characteristics of students are also a factor in successful learning.

In addition, the program seeks students who can contribute to a diverse, creative educational milieu by virtue of their age, sex, ethnic or racial identity, career interests, and past life experiences.

The faculty assumes a responsibility to the profession, to students, and to the consumers of social services to promote entrance to the program of those with potential for effective professional practice. Early screening enables the faculty to discourage students from an unwise career choice before they invest excessive time in the program. For those accepted, the admissions process is designed to identify strengths and learning needs, enabling the development of individual plans for learning.

Admissions Requirements and Criteria

1. Completion of at least 30 quarter hours of college work with an overall GPA of at least 3.00.

2. Completion of SocW 200 with a grade of C or better.

In addition to academic achievement, criteria examined in the admissions process are:

1. The ability to communicate thoughts and feelings effectively.

2. Evidence of interest and initial commitment to social work as a career.

3. The ability to work effectively with others.

Sources of information include students' performances in social work courses; interviews with the adviser, the Admissions Committee or other faculty; and information from the field experience in SocW 200 (or its equivalent, if SocW 200 is waived). Other information may also be considered with the informed consent of the students.

Students who plan to enter the program should arrange to meet with the social work adviser as early in their academic career as possible. It is important that students become familiar with the sequence of and prerequisites for courses in this major and the various recommended and required courses offered by collaborating departments.

CAREER OPPORTUNITIES

The bachelor's degree in social work qualifies the graduate for beginning practice in entry-level positions in a wide range of social service settings such as medical and health care settings, family and children's services, programs for the aged, vocational rehabilitation, youth and adult corrections, school social work, child protection and advocacy, mental health settings, crisis intervention, neighborhood centers, drug and alcohol abuse programs, family planning, adoption and child placement, child welfare programs, military programs, YMCA, YWCA, Scouting, and the Veteran's Administration.

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE, BACHELOR OF ARTS DEGREES, SOCIAL WORK

General Studies Requirements 68
- GHA (Literature - one of the following): 101, 202, 204, 205 206, 306, 307
- GHA (Philosophy - one of the following): 120, 224, 282, 320, 321, 322
- GHA One Elective
- GHA One Elective
- GIS (one of the following): 240, 241, 242, 341
- GSM 130 (and one of the following): GSM: 230, 231, 233, 250
- GSM One Elective
- GSM One Elective
- GSS 102, 103, 150 and 260 or Psychology 300a
- GSK 101, 102, 123 and 152 or 162

Professional Requirements 76
- Social Work 200, 375, 381, 383, 384, 385a, 385b, 400, 475, 479, 480, 481, 482a, 482b, 490
- Sociology 310, 312

Supporting Requirements 20
- Economics 327 (GSS 150 required prerequisite)
- Government 342
- Sociology 300, 304

Electives 28

Total 192

The Bachelor of Arts degree requires 12 hours in foreign language in addition to the other requirements and in place of 12 hours of electives.

OTHER MAJOR PROGRAMS

AMERICAN STUDIES

American Studies is an interdisciplinary approach to a study of American culture, past and present. It concentrates on American history, literature, and philosophy, and extends into the fine arts, folklore, political science, economics, and studies of the American character and popular culture.

By studying America in this broad manner, students avoid the traditionally narrow approach of a single discipline. Moreover, students are better able to comprehend what is meant by the culture and civilization of America and the American.

A major in American Studies can provide a springboard to careers in such areas as government, business, journalism, editing, and museum work.

CAREER OPPORTUNITIES

College graduates with backgrounds in American Studies are prepared to pursue academic careers in American History, American Literature, Intellectual History, and a wide variety of the Social Sciences. They are also prepared to pursue study towards such professions as journalism, law, and mass communications.

BACHELOR OF ARTS DEGREE IN AMERICAN STUDIES

General Studies Requirements	60
Requirements for Major in American Studies	92
Foreign Language (two years of same language)	24
GHA 202	4
GSS 200, 201, 202	12
American Studies 490	4
English 309	8
Philosophy 385c, d, or e	4
Philosophy 386	4
Approved courses in history, social sciences, literature, philosophy, fine arts, and other areas. (At least two courses must be in speech or fine arts.)	32
Electives	40
Total	192

BACHELOR OF LIBERAL STUDIES

The Bachelor of Liberal Studies Program provides the option of obtaining a college degree without concentrating in any single discipline. This program provides students who wish no particular specialization with the opportunity to obtain a broad understanding of the basic areas of knowledge.

CAREER OPPORTUNITIES

The Bachelor of Liberal Studies, unlike many major programs, is intended to enhance knowledge in a variety of areas rather than to create a special depth of understanding in one field. The extensive set of course alternatives available through this program allows students to tailor their curriculum to meet their individual needs.

The program is of special value to those who are not seeking a career based in a single discipline, to those who already possess recognized occupational skills, and to those who wish an expansion of their personal and professional lives.

DEGREE REQUIREMENTS[1]

BACHELOR OF LIBERAL STUDIES

General Studies Requirements	68
Broad Area Requirements	72
Natural Sciences	24
Social Sciences	24
Humanities-Fine Arts	24
Electives	52
Total	192

[1]No more than 32 hours of General Studies and/or Departmental courses can be taken in any discipline. Eighty hours of the total must be in courses numbered 300 or above.

Students may declare a major in Liberal Studies any time prior to the senior year by applying at the Office of Academic Services. Upon declaration, student-adviser contracts for the entire degree are prepared, subject to periodic review by both the students and the adviser.

HUMAN SERVICES

The Delinquency Study and Youth Development Center has a long history of involvement with human services problems. Public service and applied research expertise are provided by the Center to a variety of public and private agencies at the local, state and national levels. Demonstrative programming for youth, in-service training of professionals and paraprofessionals, regional and national conferences, and human services needs assessment are current and typical activities.

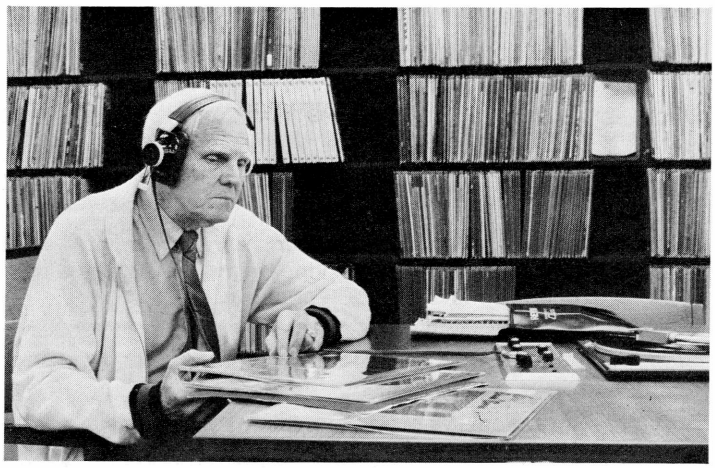
In addition to public service and applied research, the Center offers a Bachelor of Arts or Bachelor of Science degree in Human Services. The Human Services major is an interdisciplinary four-year program designed to prepare students to work effectively at an entry level, through the helping professions, in services and programs offered in mental health, corrections, employment, welfare and law enforcement.

The emphasis of the Human Services program is on classroom and field experiences that will acquaint students

with the scope, diversity, and needs of people and agencies within the broad context of human services. Students are exposed to the overall social, political, and economic aspects of human service systems within an academic framework committed to meeting the unique and individual interests of each student. Generally, the Human Services program and the public service and applied research components of the Center are carefully coordinated. Linkages provide students with unique opportunities to learn through actual experience.

Instruction in the Human Services program, as well as in public service and applied research activities, is provided by the faculty of the Delinquency Study and Youth Development Center. This faculty consists of an eight-member interdisciplinary team of social scientists. Psychology, sociology, education, law, counseling, criminal justice, theology, and human development comprise the current expertise of Center faculty.

In addition to undergraduate education, the Center offers graduate credit to students working toward an advanced degree in a related discipline. Provision may also be made for credit to be granted to participants in workshops and institutes sponsored by the Center.



CAREER OPPORTUNITIES

Graduates in Human Services are employed by a diversity of agencies and organizations in a wide variety of job positions. Specific careers include: counselor, deputy sheriff, youth worker, probation officer, planner, research coordinator, police officer, social service director, mental health worker, and caseworker. Areas of employment may include the Department of Public Aid, police departments, mental health centers, poverty programs, drug and alcohol abuse centers, court services, and related areas.

Professors:
Hughes, T. R., Jacobson, J. A., Reuterman, N. A. (Director), Stein, J. R.

Associate Professors:
Pooley, R. C., Quillian, B. F.

Assistant Professor:
Levy, E. R. Levine

Instructor:
Reidelberger, J. J.

DEGREE REQUIREMENTS

BACHELOR OF SCIENCE OR BACHELOR OF ARTS DEGREE, HUMAN SERVICES

General Studies Requirements (Waive GSS-8.)	60
Requirements for Major in Human Services	48
Human Services 101, 320, 401a	12
Human Services elective hours[1]	36
Minor	25-40
Electives	59-44
Total	192

[1]No more than a total of 12 hours of independent study will apply toward the human services major.

Students seeking a Bachelor of Arts degree should follow the program outlined above, adding 12 hours of foreign language.

MINOR REQUIREMENTS

A minor in human services consists of a minimum of 28 hours of course work in human services. These 28 hours must include 101 and 312; 401a, 401b, 401c, 490, 491, 492 may not be taken for credit toward a minor.

MINOR PROGRAMS

AEROSPACE STUDIES

Students interested in the Aerospace Studies minor should refer to the section of this catalog entitled Additional Educational Opportunities.

AMERICAN STUDIES

American Studies, an interdisciplinary approach to a study of American culture, is an appropriate minor for students majoring in such disciplines as government, business, journalism,

history, geography, or anthropology.

MINOR REQUIREMENTS

A 28-hour multi-disciplinary minor in American Studies includes courses in American studies, American literature, American history, American philosophy, and American art or jazz. One elective from American studies, American literature, American history, economics, government, or sociology should be selected with the approval of the student's major adviser in consultation with the American Studies Adviser, currently Jules Zanger.

BLACK AMERICAN STUDIES

The Black American Studies minor is multi-disciplinary with courses in seven departments and in General Studies.

Within the 27 hours required for this minor a student is required to take two specific courses: English 340 and History 309. The remaining 19 elective hours selected from the following courses must include courses from three different departments, and at least three courses related to the black experience in America: GHA 205, 338; Anthropology 311, 411; Art 469a; English 341, 342a, 342b, 342c; Government 342, 442; History 316a, b, c; Sociology 304, 402, 409.

For additional information regarding this minor or any of the courses, contact the Black Studies adviser, currently Rudolph Wilson, Building II, Room 1142. A description of the program and a schedule of courses offered each quarter are available at the office.

CLASSICAL STUDIES

The minor in Classical Studies is a multi-disciplinary program sponsored by the School of Humanities and supported by the Departments of English Language and Literature, Foreign Languages and Literature, and Philosophical Studies, as well as by the Department of Historical Studies in the School of Social Sciences and the Department of Art and Design in the School of Fine Arts and Communications.

Classical Studies contributes to cultural enrichment through the study of Latin, Greek, and the history, philosophy, literature, and art of the Greek and Roman civilizations; to the improvement of literacy levels by close attention to the grammatical and syntactical structure of Latin and/or Greek and by the careful analysis of texts; and to expansion of a general working vocabulary, as well as the special vocabulary of such fields as medicine, law, theology, and foreign languages derived from a study of classical Latin and Greek.

For additional information, please contact the Coordinator of Classical Studies, currently Edwin G. Lawrence.

REQUIREMENTS

The requirements are 32 credit hours of courses designated Classical Studies. Of these, 12 hours are required either in Greek or in Latin. If a student chooses to include both languages in the minor, then 12 hours are required in one of the languages and 8 hours in the other. A student may be excused from the required courses through placement examinations, but generally not from the required number of hours in one or both languages. The placement examinations determine the level at which the student begins.

COURSES

Greek 101—4, 102—4, 103—4 Introduction to Greek; 201—4, 202—4, 203—4 Intermediate Greek; 499—24 (4,4,4,4,4,4) Readings in Ancient Greek; Latin 101—4, 102—4, 103—4 Introduction to Latin; 201—4, 202—4, 203—4 Intermediate Latin; 499—24 (4,4,4,4,4,4) Readings in Latin; Foreign Languages and Literature 401—4 Comparative Latin and Greek Grammar; GHA 141—4 Building Vocabulary Through Latin and Greek Word Elements; 203—4 Literary Masterpieces of Antiquity; 209—4 Classical Mythology and Its Influence; History 100—4 Survey of Ancient Civilization; 306—12 (4,4,4) History of Rome; 338—8 (4,4) History of Greece; 408b—4 History of Ancient Near East: 1200 B.C. to 330 B.C.; Philosophy 385a—4 History of Western Philosophy: Ancient; Philosophy/Government 484a—4 Ancient and Medieval Political Theories; Art 225a—3 History of World Art: Ancient and Classical; 447—9 (3,3,3) Ancient Art.

Certain electives require advance approval due to their having variable credit. These are the following: Humanities 301—3 to 4, 302—3 to 4, 303—3 to 4 Humanities Honors; Humanities 400-1 to 4 Symposium in the Humanities; Comparative Literature 210—12 (4,4,4) Literature and Society; Foreign Languages and Literature 390—2 to 6 Readings; History 300—2 to 8 Special Topics; Philosophy 490—2 to 12 Special Problems; 495—2 to 12 Independent Readings.

PEACE STUDIES

The Peace Studies program is an interdisciplinary minor for students who wish to gain a comprehensive understanding of one of the major issues of contemporary society, the problem of eliminating war in favor of non-violent means of resolving disputes. Relevant information comes from the areas of government, philosophy, history, economics, anthropology, psychology, and sociology. By declaring a minor concentration in Peace Studies students can get explicit recognition for taking courses which are related to each other by virtue of the problem to which they are addressed even though they are taught by many different departments.

The Peace Studies minor is especially appropriate for those entering the professions of journalism, radio or TV newscasting, government service, teaching (at any level), law, or international business. It is also a good minor for those interested in preparing themselves for their role as citizens in a democracy.

For additional information and advisement assistance, please call 692-3376 or 692-2250, or see the Coordinator of the Peace Studies Program, currently Ronald Glossop, in Peck Building 2212.

REQUIREMENTS

The minor in Peace Studies requires 28 hours. No courses used by students for their major can be counted toward these 28 hours.

Students planning to minor in Peace Studies must pay attention not only to the courses required but also to the prerequisites recommended for these courses. Requirements are listed below. Students should also take GIS 340 (The Problem of War and Peace) their sophomore or junior year in order to acquire a background for other courses in the Peace Studies program.

Required Courses (20 hours): GIS 340, Government 370, 472 or 474a, History 440b, and at least one of the following (others in the group may be taken as electives): GSS 388, Philosophy 342, History 424b, Economics 425, Government/Philosophy 484c.

Elective Courses (20 hours): GIS 260; GSS 315; Aerospace Studies 100; Anthropology 305a, 305b, 452; Government 474b, Government/Philosophy 484a, 484b; History 427, 437, 440a; Sociology 461.

The following courses may also be accepted as electives when focused on appropriate subject matter (approval must be given by the Committee on Peace Studies): Anthropology 470, Special Topics in Anthropology; Economics 490, Independent Study in Economics; Government 479, Topics in International Relations; Government 489, Topics in Political Theory; History 410, Special Readings in History; Philosophy 490, Special Problems in Philosophy; Philosophy 495, Independent Readings in Philosophy; Sociology 396, Readings in Sociology.

WOMEN'S STUDIES

Women's Studies is a new interdisciplinary field of study with a variety of tasks. With a positive stance towards women, it inquires critically into the beliefs, attitudes, and values surrounding women and womanhood. It investigates from a variety of perspectives the nature of women—their experiences, their bodies, their abilities—in order to replace myth with understanding. It examines and evaluates assumptions held about women in the traditional academic disciplines. It explores alternative arrangements for women and men on all levels of our society—sociological, economic, personal. And it can develop skills in women for endeavors heretofore closed to them by stereotypical expectations.

Ultimately the goal of Women's Studies is to offer the student new attitudes, understandings, and expectations of women's lives.

The Women's Studies Program at SIUE offers a minor composed of courses from a number of disciplines. The courses to be offered for the minor and their instructors will be announced each quarter by the Women's Studies Program. Only those courses and instructors so designated will count towards the minor.

Some of the courses which may be credited to Women's Studies with the approval of the Women's Studies Director are: GHA/GSS 282, GHA 305, GSM 233, GSS 313, Anthropology 426, Comparative Literature 210, English 341, Foundations of Education 451, History 313, 390, Humanities 301, 302, 303, Philosophy 320, 321, Psychology 414, Sociology 408, Women's Studies 490, 495, 499.

Students interested in the minor should contact Sheila Ruth, currently the Adviser of Women's Studies in Room 2219 of the Peck Building.

REQUIREMENTS

The minor in Women's Studies consists of 28 hours in courses designated as Women's Studies; not more than 12 hours may be taken on the General Studies level. A grade point of 3.50 is required in Women's Studies courses.

ADDITIONAL EDUCATIONAL OPPORTUNITIES

CREDIT ALTERNATIVES

Students enrolled in the University will find a wide range of credit classes offered during the summer, in the evenings, and on weekends. These opportunities are designed to complement leisure and work schedules.

AEROSPACE STUDIES

The objective of the Air Force Reserve Officer Training Corps (AFROTC) is to qualify students for appointment as second lieutenants in the United States Air Force. However, students may enroll in the freshman/sophomore level aerospace studies course with no military service obligation. Students who enroll in the junior/senior level courses incur a military obligation and may enroll in courses only with the permission of the Professor of Aerospace Studies.

The AFROTC faculty consists of commissioned officers assigned by the Department of the Air Force with the approval of the President of the University.

The Department of Aerospace Studies offers two- and four-year programs at SIUE. The AFROTC four-year program is

designed for students with three or more years of undergraduate studies remaining. Students with junior standing or above may apply for entry into the two-year program. However, entry into the two-year program is competitive and is based on standardized test scores, academic major, grade point average, physical examination, personal interview with the Professor of Aerospace Studies, and successful completion of a summer field training session at an Air Force base. Applicants must be full-time students at SIUE and must remain in good academic standing.

The AFROTC program is divided into the General Military Course (GMC), the freshman/sophomore level curriculum; and the Professional Officer Course (POC), the junior/senior level curriculum. The GMC covers two main themes: the Air Force Today and The Development of Air Power. The courses of the POC emphasize the professional development of the future Air Force officer. The curriculum covers American Defense Policy and Air Force Management and Leadership. Field trips to Air Force bases supplement classroom instruction and familiarize the cadet with Air Force operations and organization.

In the final year of AFROTC, qualified cadets interested in becoming Air Force pilots participate in a Flight Instruction Program (FIP). FIP students receive 13 hours of free flight instruction at the Parks Aeronautical College flying school.

In order to be commissioned, AFROTC cadets must:

- Pass a medical examination at a military medical facility.
- Obtain a favorable evaluation on an Armed Forces personal history security investigation.
- Be at least 18 years old. Flying applicants must complete commissioning requirements before age 26½ and non-flying applicants must complete commissioning requirements by age 30. However, the age limit for non-flying applicants may be extended to age 35 for outstanding individuals.
- Be of good character (as determined by a favorable record with law enforcement authorities).
- Successfully complete all AFROTC course requirements.
- Complete a baccalaureate degree or higher degree.

AFROTC cadets must also successfully complete specific courses to enhance their utility and performance as commissioned officers. These include university courses in English compositon and mathematical reasoning. Such courses are designated by the Professor of Aerospace Studies.

AFROTC textbooks and uniforms are loaned to all cadets without charge. Students in the POC also receive a monthly subsistence allowance of $100 per month for a maximum of 20 months, an Air Force uniform, a summer field training allowance of more than $400, and an allowance for travel to and from the training location.

In addition to the AFROTC courses offered for academic credit, the Aerospace Studies Department sponsors the Arnold Air Society and Angel Flight. Arnold Air Society is a national honorary service organization open to selected AFROTC cadets. Angel Flight is an auxiliary organization of Arnold Air Society and membership is open to anyone interested in bringing to the local community a better understanding of the Air Force mission and its leaders.

FIELD TRAINING: AFROTC Field Training is offered during the summer months at selected Air Force bases throughout the United States. Students in the four-year program participate in four weeks of Field Training, usually between their sophomore and junior years. Major areas of study include: junior officer training, aircrew/aircraft orientation, career orientation, survival training, base functions and Air Force environment, and physical training. Students applying for entry into the two-year program must successfully complete six weeks of field training prior to enrollment in the Professional Officer Course. The major areas of study included in the six-week field training program are General Military courses and Leadership Laboratory. Students completing the four-week field training program do not enroll in General Military courses or Leadership Laboratory since those requirements are met at SIUE. No direct academic credit is awarded for field training. However, students who successfully complete field training may apply for elective credit through the Aerospace Studies Department.

LEADERSHIP LABORATORY: Leadership Laboratory is taken for one hour per week throughout enrollment in AFROTC. Instruction is conducted within the framework of an organized cadet corps with a progression of experiences designed to develop student leadership potential. Leadership Laboratory involves a study of Air Force customs and courtesies, drill and ceremonies, career opportunities in the Air Force, and the life and work of Air Force junior officers. It also includes field trips to Air Force installations.

ROTC SCHOLARSHIPS: The federal government and the State of Illinois both offer scholarships to qualified students. Specific details are contained in the Financial Information section of this catalog.

Adjunct Professor:
Freeman, W. B.

Adjunct Assistant Professors:
Anderson, S. K., DiMarchi, D. D., Hekert, M. B.

Adjunct Instructors:
Alexander, M. D., Pitkington, J. C.

Aerospace Studies Minor

The aerospace studies minor educates students in the leader-

ship and managerial responsibilities associated with administering aerospace operations. In addition, the program examines the past, present, and future of aerospace technology.

The program requires 27 hours and includes 18 hours in aerospace studies. The remaining 9 hours to complete the minor consist of electives chosen in consultation with the student's adviser from several closely related areas.

SUMMER UNIVERSITY

Southern Illinois University at Edwardsville offers a wide range of educational opportunities during the summer term. The initiation (1984) of Summer University represents an increased commitment to the needs of summer students. Innovative course formats, flexible scheduling policies, and enhanced cultural and recreational opportunities now make it possible for students to adapt summer educational plans to job needs, vacation plans, and other interests.

Summer University students may choose from a wide range of regular courses, offered in both the 8-week and 10-week sessions. In addition, many programs offer workshops in varying formats before, during, and after the 8-week session. Nearly all summer courses and workshops are taught by regular members of the Southern Illinois University at Edwardsville faculty.

Additional information regarding Summer University may be obtained by writing the Summer University Office, Rendleman Building 3102 (Office of the Vice President and Provost), or by calling (618) 692-3772.

SEPTEMBER OPTION

SEPTEMBER OPTION offers courses in a concentrated format during the first four weeks of the fall quarter and enables students to study intensively in a subject area and to complete work in a course before the traditional beginning date of the quarter.

Most students who participate in SEPTEMBER OPTION take only one course, because courses included in this offering meet 100 minutes a day, five days a week.

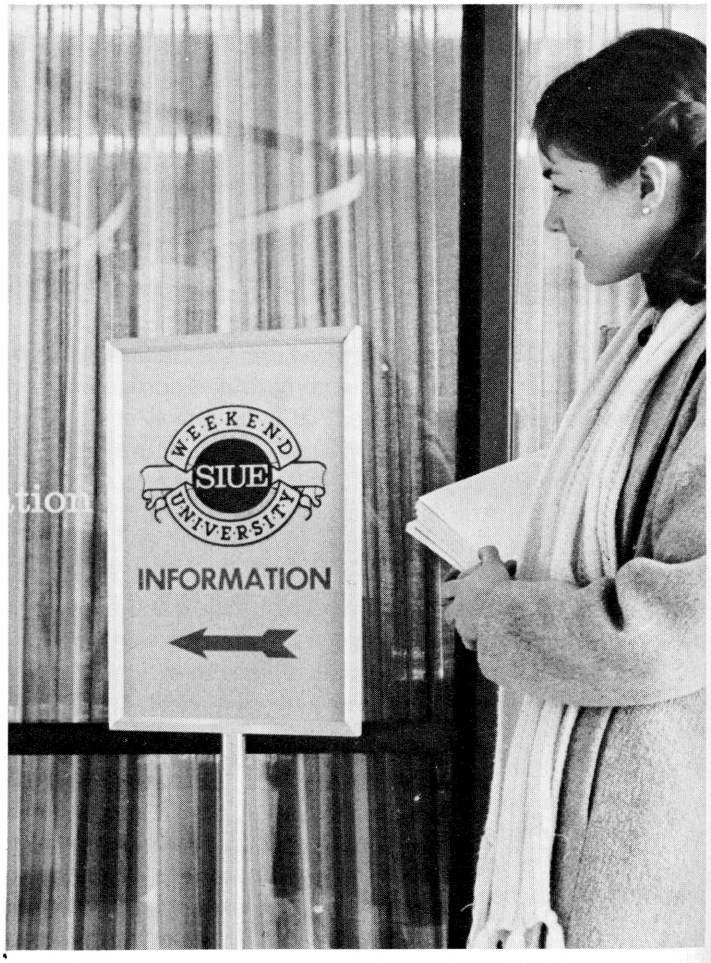
Participation in SEPTEMBER OPTION is entirely voluntary. Students who do not wish to complete a course offered in an intensive format begin fall quarter classes on the traditional schedule in late September.

Not all disciplines offer courses in SEPTEMBER OPTION, but the schedule provides several choices at most levels and in many fields. Entering freshmen, persons seeking career change or advancement, students wishing additional academic preparation prior to beginning college classes, travellers wishing efficient exposure to a foreign language, and students desiring to accelerate their educational progress may find SEPTEMBER OPTION a singular opportunity.

WEEK END UNIVERSITY

Many SIUE classes are available on Saturdays and Sunday afternoons through Week End University, which was designed to provide access to university classes for those who, because of work, family or other considerations, find it difficult to fit daytime or evening classes into their schedules. Classes meet once a week for the full number of weekly contact hours, and students earn regular University credit. Students may choose to attend only on weekends or may combine weekend study with day or evening classes. Week End University offers an alternative time schedule and provides services to support university study. All University policies apply although procedures may differ slightly.

The Week End University Office, located in the Office of Continuing Education, in Room 1330 of the Rendleman Building, is open each week day, as well as Saturdays and Sundays. To obtain class schedules, applications, general information, or weekend assistance, you may visit the office or call (618) 692-3775.



ALTERNATIVE LOCATIONS

East St. Louis Campus

The East St. Louis Campus of SIUE, located at 411 East Broadway in East St. Louis, is the base for many University activities in East St. Louis and the Metro-East area. The classrooms, laboratories, and library facilities there support the offering of University credit courses. The East St. Louis Campus also provides rooms and other facilities for community meetings, workshops, and seminars, many of which are planned and

directed by University faculty and personnel as part of the University's commitment to community and public service in Metro-East.

Utilizing the facilities of the East St. Louis Campus, the University offers upper-division and graduate credit courses in selected programs that meet distinctive community needs, i.e., early childhood education, accounting and data processing, black studies, counseling, special education, and nursing. The academic programming has been planned to facilitate degree completion by area residents. Lists of courses offered are available at registration each quarter.

The Office of the Director of the East St. Louis Campus coordinates and directs academic support programs and service training programs, both on and off campus. These programs enable the University to provide quality education to all of its constituencies, in order to increase employment opportunities for area youth and adults, and to upgrade the quality of life for persons in the Metro-East area.

Community Service Programs

The East St. Louis Campus of SIUE is the site of many community service programs, academic and cultural, some of which are initiated within the University and others which respond to requests for University assistance. Faculty and personnel are active in planning or assisting in the planning of many workshops, conferences, seminars, and programs designed to aid the citizens of Metro-East to enhance their lives, to understand and cooperate with their city government and municipal services, and to utilize the many state and federal agency services available to them.

The Katherine Dunham Center for the Performing Arts

This community service motivates and stimulates youth and adults of East St. Louis to develop alternative value systems and creative lives through understanding and participating in the performing arts. The Dunham Center is open to all residents of the area. SIUE students from both campuses participate, but University enrollment is not required for participation in activities at the Katherine Dunham Center.

The unit sponsors two performing groups: the Performing Dance Company and the Unity Theatre Ensemble. The Performing Dance Company focuses upon dance and the interpretation of ethnic traditions as a means of expressing various observances and moods. This Company has gained a national reputation for excellence. The Unity Theatre Ensemble intermingles music, drama, and dance. The two groups maintain an active schedule of performances in the area schools which serve as stimuli to encourage young observers to broaden their horizons and develop their own creative potential.

The East St. Louis Campus also offers noncredit instruction in music appreciation and performance to SIUE students, area citizens, and the Upward Bound/Science Awareness students.

Upward Bound/Science Awareness

The Upward Bound/Science Awareness Project funded by the United States Office of Education is an alternative high school program for the eleventh and twelfth grades designed to provide highly motivated and capable students with the essential background in science, language arts, communication skills, and mathematics to enter and succeed in science-based baccalaureate fields of study. Students take their academic classes at the centrally located East St. Louis Campus, but can still participate in social and extra-curricular activities at their home schools which accept Project credits toward the high school diploma. Some courses carry University credit which is assigned upon matriculation. The ultimate objective of the Science Awareness Project is to increase the number of minority persons engaged in professions and careers based on the sciences. The format of the Science Awareness Program has been accepted by the United States Office of Education as a model to be disseminated nationally for implementation by postsecondary schools in urban areas.

Child Development Program

The East St. Louis Campus operates two Early Child Development Centers that serve working and college enrolled parents. The Centers enroll approximately 150 students.

Educational Opportunity Centers

The EastSt.Louis Campus operates several Educational Opportunity Centers. The Centers offer assistance in gaining access to postsecondary institutions.

Head Start Program

The East St. Louis Campus administers seven Head Start Centers in St. Clair County. Approximately 750 pre-schoolers from 3 to 5 years of age are enrolled in the Centers.

Resident Centers and Other Off-Campus Locations

Resident centers have been established at Scott Air Force Base and other locations. Selected credit courses and degree programs, identical to on-campus programs in academic content and degree requirements, may be offered at these locations.

Numerous University credit courses are also offered at off-campus sites in response to specific requests in order to meet particular educational needs in area communities. Sites used have included local schools, community colleges, hospitals and government facilities. Institutions, agencies, or organizations interested in off-campus services, or individuals wishing information about resident centers or other off-campus courses, should contact the Coordinator of Credit Programs in the Office of Continuing Education at (618) 692-3210.

NON-CREDIT ACTIVITIES

OFFICE OF CONTINUING EDUCATION

The Office of Continuing Education sponsors a wide variety of non-credit and public service activities designed to extend the resources of the University to the people of southwestern Illinois.

EDUCARD is a special program which allows anyone not currently enrolled at SIUE to attend selected credit classes (listed in the *Announcements* class schedule) on a space-available basis. No credit is earned and no official University record is kept of EDUCARD participation, but EDUCARD learners do receive a student parking decal and a courtesy library card and may borrow undergraduate textbooks for the quarter they attend. The fee for EDUCARD is $15.00.

Career and professional development programs present up-to-date information to business people and professionals wishing to remain current in their career fields. Examples of recent programs include "Industrial Hygiene," "Computers in Construction," "Custodial Care," and "Role Models for Women on the Move."

A wide variety of non-credit classes are offered for the leisure enjoyment and personal development of residents of area communities. Noncredit classes include such topics as leisure and hobby activities; computers; real estate; music, dance and exercise; consumer issues; topics for women; and other special interest areas.

Through the Metro East Institute for Lifetime Learning, SIUE offers many short, non-credit classes at senior citizen centers and nutrition sites throughout the region. A nominal fee is sometimes charged.

For information on any of the above activities, contact the Office of Continuing Education at (618) 692-3210.

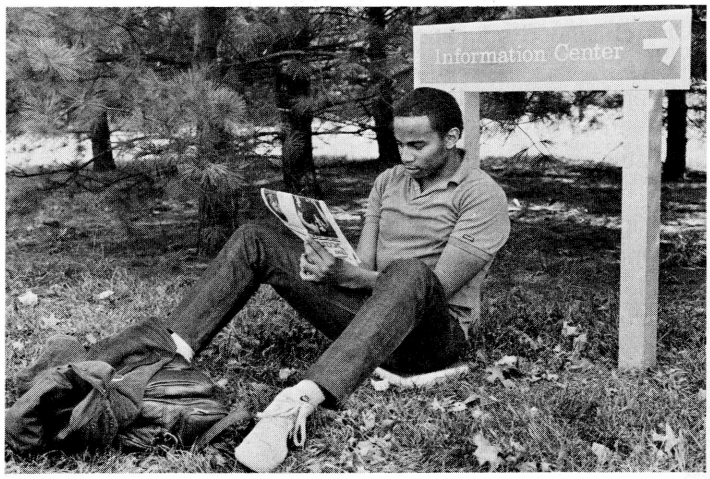
ENVIRONMENTAL RESOURCES TRAINING CENTER

The Environmental Resources Training Center (ERTC) has been designated by the Illinois Environmental Protection Agency as the state center for training of personnel involved in water quality control facility operation, maintenance and management. The facilities of ERTC, located on New Poag Road on the SIUE campus, are designed, equipped, and staffed specifically to provide training in the current technology for treatment of both potable water supplies and wastewaters.

ERTC training programs are designed to assist both entry-level personnel who wish to prepare for a career in water quality control operations and persons already employed in treatment facility operations who desire additional education to upgrade job skills and to prepare for more responsible positions.

Students who complete ERTC training courses successfully are awarded continuing education units (CEU's) by SIUE and receive education and training credits applicable to certification as water supply or wastewater treatment facility operators under programs administered by the Illinois Environmental Protection Agency.

The ERTC offers numerous courses, seminars, workshops, and institutes each quarter at both on-campus and off-campus sites. The ERTC also offers a full-time one-year program at the ERTC facility which leads to a Certificate of Completion in Water Quality Control Operations.



CAREER OPPORTUNITIES

Career opportunities in the field of Water Quality Control Operations are excellent. Based on data from the Illinois Environmental Protection Agency, Illinois water supplies and wastewater treatment plants will need as many as 400 additional trained and certified operators each year. On a national scale, as many as 7700 career openings will be available each year. These are conservative estimates because they do not include the needs of industrial facilities and other potential employers of trained water quality control operators.

ERTC training prepares technicians who will be responsible for the day-to-day operation, control, and maintenance of water quality control facilities. ERTC training is task oriented and stresses development of operational skills through hands-on practice.

Faculty and Staff

Bengtson, H. (Acting Director), Anderson, D. M., Benear, A. K., Harris, N. A., Henke, R., Long, L., Whitworth, R. A., Wooters, C. T.

Water Quality Control Operations

Water is treated and disinfected before it is safe and acceptable for distribution to the public for drinking, cooking, bathing, and other uses. Wastewater, which is water that has been used by the public, must be collected and treated before it can be discharged back into streams, rivers, and lakes.

Water quality control operators control, operate, maintain, and manage water supply and wastewater treatment systems. The water quality control operators are responsible for protecting the health and welfare of the population by assuring that treatment systems perform properly and produce safe water all the time. Because the responsibilities are so great, Illinois and most other states require that water quality control operators be licensed before they can operate a plant.

The water quality control operators operate and maintain water treatment equipment; control processes by adjusting flows, chemical additions, and treatment processes; perform laboratory tests to check on the quality of the water and to determine how the treatment plant must be controlled; maintain records on plant and equipment performance; and report to the public and state regulatory agencies on water quality.

Admission and Retention

ERTC considers individual potential when granting admission to the program. ERTC prefers to admit only those students who are high school graduates or who have earned 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 three personal references. A series of language and mathematics skills proficiency examinations are administered and evaluated for final applicant screening. Only those students whose basic skills suggest potential for success are admitted.

ERTC requires that students remain in good academic standing by maintaining a cumulative 3.00 (on a scale of 5.00) grade point average to be retained in the program.

Class Enrollment

Enrollment is limited to 40 students per academic year. Entry into the program is in the fall quarter only.

Application for Admission

Applications for admission to the ERTC program should be made directly to the ERTC. Additional information and application forms may be obtained by writing to the Career Program Coordinator, Environmental Resources Training Center, Southern Illinois University at Edwardsville, Edwardsville, IL 62026-1001.

Curriculum

The ERTC program, which can be completed in four quarters (one year) of full-time study, includes training in both water supply and wastewater treatment operations. Students receive classroom and laboratory instruction and practice operations on the 30,000 gallons per day pilot plants, which are located in the ERTC facility, and the 300,000 gallons per day wastewater treatment plant which the ERTC operates for SIUE. In the final quarter of study, trainees are placed in treatment facilities for ten weeks to gain actual work experience.

Graduates of the program receive a Certificate of Completion from Southern Illinois University at Edwardsville and meet all educational requirements for licensing as a water quality control operator by the Illinois Environmental Protection Agency.

The theoretical aspects of water quality control presented in lecture sessions are supplemented by actual experience in laboratories, shops, and treatment plants. Practical experience in all facets of water supply and wastewater treatment processes, operations, maintenance, quality control, and administration are provided. The curriculum, which provides 1,555 total contact hours of instruction, is divided into the following areas:

Water Supply Operations (335 hours)

This series of courses offers instruction in water treatment methods, equipment, maintenance, and process control. Practical training using the ERTC pilot facilities is a major part of the course sequence. Classroom and laboratory instruction is supplemented with field trips to water supply systems.

Wastewater Operations (335 hours)

This series focuses on the operation, maintenance, equipment and process control of wastewater treatment plants. The ERTC pilot facilities are utilized extensively for training. Field trips to operating wastewater treatment systems supplement classroom and laboratory sessions.

Water Quality Control Laboratory Testing (260 hours)

All testing requirements for both water and wastewater treatment facilities are taught. Training is provided for each testing criterion required for monitoring, reporting, water quality control, process control, and operations in both water supply and wastewater treatment systems.

Water Quality Control Facilities Maintenance (225 hours)

This series stresses maintenance of mechanical, electrical, and instrumental equipment in water quality control facilities and collection and distribution systems. The ERTC pilot facilities are used for these courses. Practical training is a key element in this series of courses.

Supervised Work Study (400 hours)

During the final quarter of the water quality control operations program, students will be placed in a local treatment facility. This supervised work experience will expose students to all facets of systems operation.

FALL QUARTER

	Lecture	Laboratory	Total
ERTC 101 Wastewater Operations I	4	4	
ERTC 102 Water Supply Operations I	4	4	
ERTC 103 Basic Laboratory Skills	2	4	
ERTC 105 Mechanical Maintenance	3	4	
ERTC 106 Water Quality Computations	3		
ERTC 107 Water Quality Communications	3		
Total	19	16	
Total Contact Hours per Week			35

WINTER QUARTER

ERTC 201 Wastewater Operations II	4	4	
ERTC 202 Water Supply Operations II	4	4	
ERTC 203 Wastewater Laboratory	2	4	
ERTC 204 Water Supply Laboratory	2	4	
ERTC 205 Electrical Maintenance	3	4	
Total	15	20	
Total Contact Hours per Week			35

SPRING QUARTER			
ERTC 301 Wastewater Operations III	4	6	
ERTC 302 Water Supply Operations III	4	6	
ERTC 305 Instrumentation Maintenance	3	4	
ERTC 308 System Maintenance	4	4	
Total	15	20	
Total Contact Hours per Week			35

SUMMER QUARTER	
ERTC 400 Supervised Work Study	40 hours per week for 10 weeks
Total Contact Hours per Week	40

Opportunities for Part-Time Students

In addition to the program in Water Quality Control Operations for full-time students, the ERTC also offers evening courses at the ERTC and one to five day workshops and seminars at various locations throughout Illinois. These courses are designed primarily to assist persons already employed in the water supply or wastewater treatment field to upgrade job skills and prepare to obtain certification as water supply or wastewater treatment facility operators at one of the several levels available under certification programs administered by the Illinois Environmental Protection Agency.

ERTC's annual twelve month schedule of off-campus workshops is published in July of each year. Persons interested in enrolling in the ERTC program as part-time students should contact the ERTC for more detailed information about the program and enrollment procedures.

Courses

101 WASTEWATER OPERATIONS I. First course in wastewater treatment operations. Water pollution problems and their causes are presented. Sources and characteristics of wastewater are taught. Federal and state laws, rules, and regulations applicable to wastewater treatment plant operation are discussed. Normal operation and preventive maintenance for collection systems, preliminary treatment devices, primary treatment devices, and disinfection are taught. Biological treatment principles and process control are introduced. Proper operation and maintenance of stabilization ponds and small activated sludge plants are learned. Course includes field trips to orient students to wastewater treatment processes and their operation.

102 WATER SUPPLY OPERATIONS I. The first course in water supply operation covers sources and characteristics of water, common water supply treatment processes, and the potable water distribution system. Federal and state laws, rules, and regulations applicable to water treatment plant operations are discussed. Water distribution, storage, corrosion control, fluoridation, disinfection, water quality, and water analyses are taught. Facility management, records, and reporting are addressed. The course includes field trips to orient students to water treatment processes and their operation.

103 BASIC LABORATORY SKILLS. This water and wastewater laboratory course develops skills to perform volumetric, colorimetric, and gravimetric techniques used in the water and wastewater analyses. Students learn laboratory procedures in training sessions. Laboratory safety, proper care and use of glassware, equipment and chemicals, and record keeping are stressed.

105 MECHANICAL MAINTENANCE. In shop sessions, students learn to maintain and repair centrifugal and positive displacement pumps and other mechanical equipment found in water and wastewater plants. Principles of pump operation and maintenance are taught. Preventive and corrective maintenance procedures, which include problem diagnosis and lubrication, are stressed. Piping, valves, and connections are discussed.

106 WATER QUALITY COMPUTATIONS. Reviews basic mathematics principles including addition, subtraction, multiplication, and division of whole numbers, fractions, decimals, and percents. Averaging numbers, ratios, proportions, and significant figures are also reviewed. Conversions, areas, volumes, and use of graphs are taught. Word problems, solving simple equations, velocity, and flow calculations are taught. Water and wastewater system process control calculations are introduced. Students learn to calculate detention time, efficiency, water overflow rate, surface settling rate, chemical dosage, hydraulic, and organic loading, solids inventory, F/M ratio, MCRT, and sludge age.

107 WATER QUALITY COMMUNICATIONS. Teaches the basic communication skills required by operators of water quality control facilities. Topics include improving basic reading skills, grammar, spelling, and written and oral communication skills. Technical writing skills are developed.

201 WASTEWATER OPERATIONS II. The second course in wastewater operations deals with the modes of operation, process control testing, operating strategies, and troubleshooting of the activated sludge process, fixed media systems, aerobic and anaerobic sludge digestion, and solids handling systems (drying beds, lagoons, and land application). Students operate the ERTC pilot facilities and learn to apply basic principles to actual operations. The SIUE wastewater treatment plant is also used to provide practical experience in operations.

202 WATER SUPPLY OPERATIONS II. The second course in water operations teaches solution mixing, preliminary treatment, ground water sources, iron and manganese control, filtration, ion exchange softening, process water disposal, laboratory and operating data interpretation, and system management as they relate to Class C and B water treatment facilities in the state of Illinois. Students operate the ERTC pilot facilities in laboratory sessions. Field trips to operating facilities are included.

203 WASTEWATER LABORATORY. Provides training in the following wastewater analyses: Biochemical Oxygen

Demand, Chemical Oxygen Demand, Fecal Coliform, Phosphorus Determination and Total Kjeldahl, Ammonia, Nitrate and Nitrite Nitrogen. Laboratory management, quality control, and microscope techniques are also taught.

204 WATER SUPPLY LABORATORY. Provides training in the following water analyses: Iron, Manganese, Fluoride, Chlorides, Sulfate, Conductivity, Hardness, Magnesium, Free Carbon Dioxide, Threshold Odor, Color, Total Coliform, and Orthophosphate. Laboratory management, jar testing, and microscope techniques are taught.

205 ELECTRICAL MAINTENANCE. Teaches motors and their control panels. Proper operating conditions for relays, magnetic contactors, motor protective devices, and other electrical components are taught. Use of electrical testing equipment to analyze and troubleshoot electrical systems is practiced in shop sessions. Students learn to read and use electrical schematics and wiring diagrams.

301 WASTEWATER OPERATIONS III. The final course in the wastewater operation series covers operation and maintenance of sludge dewatering systems (vacuum filtration, belt filtration, and dissolved air flotation), sludge disposal (land application, landfills, and incineration), tertiary treatment systems (sand filtration, carbon adsorption, nitrogen removal, chemical precipitation, reverse osmosis, and ion exchange), records and reporting systems. The ERTC pilot facilities and SIUE waste treatment plant are used in the training sessions in this course.

302 WATER SUPPLY OPERATIONS III. The final course in water supply operations teaches operation and maintenance of Class A water facilities in the state of Illinois. Surface water treatment, chemical feeding, coagulation and sedimentation, taste and odor control, filtration, softening and process waste disposal are taught. Laboratory data interpretation in the operation of Class A facilities is stressed. In laboratory sessions students operate the ERTC pilot facilities. Field trips are included in the course.

305 INSTRUMENTATION MAINTENANCE. Teaches application, calibration, maintenance, and operation of instruments and control systems in the water and wastewater industries. Operation and maintenance of primary sensing and sampling devices, recording, indicating, transmission, and controlling equipment are taught. Training with each system is stressed.

308 SYSTEM MAINTENANCE. The wastewater collection and water supply distribution systems course teaches proper methods of constructing, inspecting, cleaning, and maintaining large pipe networks. Students learn to make service connections to lines found in distribution and collections systems. Legal requirements for systems are presented. Proper procedures to disinfect water lines are taught. Record keeping and reporting for collection and distribution systems are taught. Proper safety procedures in system maintenance are emphasized. Students observe and practice proper techniques during field trips.

400 SUPERVISED WORK STUDY. Students work in treatment facilities for a ten-week supervised work experience. This work experience is structured so that students spend a minimum of ten work days in each facet of system operation: collection or distribution system, plant operations, maintenance, and laboratory. The students prepare written and oral reports describing their experience which are presented and discussed at group meetings held at the conclusion of each two-week segment.

COMMUNITY OUTREACH ACTIVITIES

CENTER FOR MANAGEMENT STUDIES

The Center for Management Studies provides a broad array of training and consulting services to individuals and organizations within the community. These services include short seminars, CPA Review Courses, Supervisory Management Development Program, tailored in-house training and development programs, and applied consulting activities.

Persons interested in obtaining information may contact James F. Miller, Jr., at the Center for Management Studies, (618) 692-2668.

CENTER FOR URBAN AND ENVIRONMENTAL RESEARCH AND SERVICES

The Center for Urban and Environmental Research and Services has as its primary mission the development, coordination, and support of research and public service. Its major emphasis is on

the Illinois portion of the St. Louis metropolitan region, although activities often cover a broader area and programs are directed toward the general quality of urban life. It has undertaken projects in such fields as housing, pollution, public finance and administration, the arts, population, and community action. A major activity is the census data services provided to a wide range of users. The Center participates in cooperative ventures with other educational institutions and has developed and carried out a number of interdisciplinary activities involving persons outside the Center and outside the University.

The Center has a staff of seven professionals who come from varied disciplinary and experience backgrounds. In addition, the Center also offers short-term appointments to others in the University in order that they may pursue research and service related to the Center program.

DELINQUENCY STUDY AND YOUTH DEVELOPMENT CENTER

The Delinquency Study and Youth Development Center provides public service and applied research for a variety of public and private agencies at the local, state, and national level. These services include staff training, program planning, needs assessment, assistance in proposal preparation, program evaluation, assistance in research design and statistical analyses, and so forth. Examples of agenices with which the Center has cooperated include mental health, juvenile justice, law enforcement, poverty programs, welfare, youth services, and abuse centers. The present faculty of the Center have training and expertise in the areas of psychology, law, special education, counseling, education, criminal justice and human development.

DENTAL CLINIC FACILITIES

The School of Dental Medicine maintains clinic facilities in Alton and in East St. Louis. The Satellite Dental Clinic, now in its fourth year of operation, consists of nine dental operatories and supporting areas. The Alton Dental Clinic consists of the full range of facilities available at the School of Dental Medicine. Both clinic facilities provide patients with a comprehensive dental care program. Students in the School of Dental Medicine rotate through the clinics during the last year of the curriculum. Persons interested in care at the East St. Louis Clinic may call (618) 271-0803 between the hours of 8:00 a.m. and 5:00 p.m. Monday through Friday. Patient treatment is available 9:00 to 4:30 p.m. daily except Wednesday. Persons interested in care at the Alton Clinic may call (618) 463-3928 between the hours of 8:00 a.m. and 5:00 p.m. Monday through Friday. Patient treatment is available 9:00 to 4:30 p.m. daily except Wednesday.

ELDERHOSTEL

ELDERHOSTEL is part of the popular international program designed to provide intellectually stimulating yet affordable educational experiences for persons 60 years of age or older. ELDERHOSTEL courses appeal to persons from all backgrounds, and are offered on the SIUE campus twice each summer. For one week, participants attend up to three specially designed noncredit daily courses which challenge their interest but require little outside preparation. All three courses, related field trips, extracurricular activities, and room and board are included in the modest fee of $190. For further information contact the Office of Continuing Education, Box 84, SIUE, Edwardsville, Illinois 62026-1001 or phone (618) 692-3210.

GERONTOLOGY PROGRAM

Southern Illinois University at Edwardsville, through its Gerontology program and All-University Committee on Gerontology, provides gerontological instruction, research and service designed to meet the service and policy needs of the rapidly expanding older population in the Metro-East region, the state, and the nation.

The Gerontology Program serves as a catalyst for the many disciplines and professional programs at the University to develop collaborative efforts in the generation, dissemination, and utilization of gerontological knowledge. While Southern Illinois University at Edwardsville does not offer a major in gerontology, qualified students and community professionals may obtain a graduate certificate of completion in Gerontology by taking the Interdisciplinary Graduate Sequence in Gerontology. In addition, there are undergraduate and graduate level courses on aging in various departments and schools throughout the University. Courses in aging available to undergraduate students include: Psyc 304-4: Maturity and Old Age, Psyc 487-4: Psychology of Aging, SpC 465-4: Communication and Aging, Art 452-3: Art Education for Older Adults, and AdEd 490-4: Introduction to Adult and Continuing Education. In addition, many departments have independent study courses and courses on selected topics which address gerontological topics. Undergraduates interested in gerontology and working with older adults should arrange for an advisement appointment with the Gerontology program director.

Students may also receive gerontological education and training by participating in the Gerontology Program's vigorous Continuing Education activities, consisting of workshops, conferences, and public lectures and seminars.

Gerontology sponsors and co-sponsors a number of public service programs for older adults which include the active involvement of students. The Annual Senior Citizen's Fair, co-sponsored with the Student Activities Office, is a day-long event consisting of informational, recreational, social and educational events for older adults and their friends. Between 2500-3000 older persons attend the Fair each year. Approximately 100 student volunteers contribute their time and energy toward making the Senior Fair the largest single event for older persons in the Metro-East area.

The Dialogue With Senior Citizens is a 24-week educational and cultural enrichment program for older adults in the regional area. The Dialogue meets on Wednesdays from 1:30-4:00 p.m. in the University Center. A wide range of interesting topics are covered, with faculty presenters coming from all schools throughout the University. The annual Dialogue program begins in October and ends in May, with breaks during Thanksgiving and Christmas and between quarters.

Research on aging is fostered through the Gerontology Research Colloquia Series. Faculty, students, and community practitioners are encouraged to share their research findings with each other and to seek ways to utilize gerontological research to improve delivery of services to the aging. National scholars in the field of aging and researchers from other universities and colleges in the regional area are also an integral part of the Gerontology Research Colloquia Series.

The Gerontology Program is a member of the Association for Gerontology in Higher Education, the Mid-American Congress on Aging, and the Illinois Gerontology Consortium. Faculty and staff also hold numerous individual memberships in local, state and national organizations concerned with research, training, and service programs in the field of aging.

Southern Illinois University at Edwardsville is a microfiche repository for SCAN—the National Clearinghouse on Aging's Service Center for Aging Information.

The Gerontology Program provides a monthly radio program on WSIE-FM (88.7) entitled "Successful Aging." Anthony Traxler serves as program moderator. The faculty of the Gerontology Program and All-University Committee on Gerontology discuss the biological, psychological and sociocultural aspects of aging and ways to enhance growth and development throughout the later years.

Students and professionals served by the Gerontology Program are encouraged to seek excellence in scholarship, in professionalism, in friendship, and in service to older persons by becoming members of the Iota Chapter of Sigma Phi Omega, the National Academic Honor and Professional Society in Gerontology. Sigma Phi Omega sponsors a series of scholary and social events throughout the year and seeks to promote scholarship and professionalism in the field of gerontology. Its motto is "Service to Older Persons." Membership is open to undergraduate and graduate students who are majoring or minoring in gerontology and related fields. To be eligible for membership, undergraduates must maintain a grade point average between 4.30 and 5.00 (5.00 grading system) during their last two years of study; graduate students must maintain at least a 4.50 GPA.

The Annual Film Festival on Aging, which began in 1978, is designed to familiarize students and faculty, trainers, practitioners, and service providers in the field of aging with current gerontological media materials. The Film Festival emphasizes 16mm films on aging which can be used for educational and training purposes. Films are shown from 8:30 a.m. to 4:00 p.m.; a short discussion period follows each film. Information on rental and purchase of films shown at the Festival is provided along with a listing of general reference sources on films on aging. The Film Festival is sponsored as a public service and is free of charge.

For further information on the Gerontology Program and its activities, contact Anthony Traxler, Program Director, at (618) 692-3454, or drop by the office which is located in Classroom Building III, Room 0138.

THE OFFICE OF AREA DEVELOPMENT

The Office of Area Development is a public service unit which offers technical and research services to communities and development groups outside the University, and links faculty, departments and schools with those needing services. Services include map/graph research and production, research reports, and planning help. For information, please call (618) 692-3668.

OFFICE OF CONTINUING EDUCATION

The Office of Continuing Education sponsors a wide variety of noncredit and public service activites designed to extend the resources of the University to the people of southwestern Illinois. Career and professional development programs present up-to-date information to business people and professionals wishing to remain current in their career fields. Examples of recent programs include "Industrial Hygiene," "Computers in Construction," "Custodial Care," and "Role Models for Women on the Move."

A wide variety of noncredit classes are offered for the leisure enjoyment and personal development of residents of area communities. Noncredit classes include such topics as leisure and hobby activities; computers; music, dance and exercise; consumer issues; topics for women; and other special interest areas.

The Community Service section of the Office of Continuing Education supports a variety of activities which serve people living in southwestern Illinois. Examples of these activities include the Regional Senior Olympics, classes offered through the Metro-East Institute of Lifetime Learning, Senior Fair, Elderhostel, Focus Series, Arts for Older Adults and Girl Scout Leadership Training.

EDUCARD is a special program which allows anyone not currently enrolled at SIUE to attend selected credit classes (listed in the *Announcements* class schedule) on a space-available basis. No credit is earned and no official University record is kept of EDUCARD participation, but EDUCARD learners do receive a student parking decal and a courtesy library card and may borrow undergraduate textbooks for the quarter they attend. The fee for EDUCARD is $15.00.

The Conferences and Institutes unit of the Office of Continuing Education provides specialized program planning services and meeting arrangements for private business, professional organizations, government agencies, and community groups. The attractive, convenient, well-equipped facilities of the University campus provide an excellent setting for all types of meetings and special events. On-campus housing for groups is available during the summer. Call Conferences and Institutes, (618) 692-2660, for additional information.

In addition to providing significant public service, the many community outreach activities of the Office of Continuing Education provide an opportunity for residents of southwestern Illinois to enjoy the excellent facilities and resources of the campus and to become familiar with additional education opportunities at SIUE. For more information about the Office of Continuing Education and its activities write to Office of Continuing Education, Campus Box 84, Southern Illinois University at Edwardsville, Edwardsville, IL 62026-1001 or call (618) 692-3210.

OFFICE OF SPECIAL PROGRAMS

The Office of Special Programs provides liaison between the University and the community colleges, the vocational/technical training institutions, the local, state, and federal agencies, the public schools, and the business/industrial organizations of the private sector located within its mission area to provide enhanced educational and career opportunities for its constituents. Through this office, the resources of the University are brought to bear on area needs through the development of pertinent programs relevant to those needs. The Office of Special Programs also conducts surveys of the present and predicted job markets and evaluates the educational and vocational education that is and will be required if area residents are to be fully prepared to participate in them.

RAPE AND SEXUAL ABUSE CARE CENTER

The Rape and Sexual Abuse Care Center provides community services to both child and adult victims of sexual abuse. The Center's services include 24 hour crisis intervention, individual and group counseling, medical and legal advocacy, community education, and professional training. All services are confidential. For more information, call (618) 692-2197.

OVERVIEW OF THE SCHOOL OF DENTAL MEDICINE

The SIU School of Dental Medicine, which is located on the Alton Campus, is comprised of dental clinical facilities, classrooms, offices and research laboratories. In addition to research laboratories, the dental school has a scanning and transmission electron microscopy suite and sophisticated equipment to conduct histological, biochemical, anatomical, microbiological, pharmaceutical and physiological research.

The School of Dental Medicine program is a four year curriculum that has as its major goal the preparation of graduates to be competent general practitioners of dentistry. The School awards the professional degree of Doctor of Dental Medicine.

The curriculum is divided almost equally into four academic year units. The total clock hours are 6,080 with 1,071 devoted to basic science instruction, 4,328 to clinical sciences and 128 to behavioral and social sciences. The remaining hours are designated as elective, study and consultative time.

The year I curriculum presents normal human morphology and function and basic dental science information. The basic biomedical sciences include: Anatomy, Human Biochemistry, Microbiology and Human Physiology. The basic dental clinical science includes: Community and Preventive Dentistry, Pediatric Dentistry, Dental Materials, Dental Morphology and Occlusion, Operative Dentistry, Periodontology, Orthodontics, Fixed Prosthodontics and Occlusion.

The year II curriculum contains additional basic science information on the human organism and disease recognition, diagnosis and treatment. The didactic clinical dentistry courses prepare the student to begin patient care. The biomedical sciences of year two include: Microbiology, Pharmacology, Anatomy, General Pathology, Internal Medicine, Medical Emergencies and Oral Pathology. The dental clinical sciences include: Dental Behavioral Science, Community and Preventive Dentistry, Fixed Prosthodontics, Occlusion, Radiology, Pediatric Dentistry, Orthodontics, Oral Diagnosis and Physical Evaluation, Removable Partial Prosthodontics, Endodontics, Operative Dentistry, Management in Dentistry, Removable Complete Prosthodontics and Anxiety and Pain Control.

The year III curriculum focuses on basic comprehensive patient dental care and the relationship of all areas of prevention and treatment of dental disease. The dental clinical sciences include: Clinical Therapeutics, Nutrition, Endodontics, Occlusion, Fixed Prosthodontics, Operative Dentistry, Periodontology, Radiology, Orthodontics, Community and Preventive Dentistry, Oral and Maxillofacial Surgery, Removable Complete Prosthodontics, Behavioral Science, Oral Medicine and Physical Evaluation, Special Patient Care, Conscious Sedation and General Anesthesia and Comprehensive Patient Care.

The year IV curriculum focuses on advanced comprehensive patient dental care and includes the following: Advanced Dental Sciences, Pain, Practice Management, Internal Medicine, Advanced Procedures in Prosthodontics, Endodontics, Oral and Maxillofacial Surgery, Periodontology and Advanced Comprehensive Patient Care.

The dental curriculum is a structured program that requires all students in each year's class to participate in the above listed courses simultaneously. All students enter the program at the Year I level based on completion of minimum academic requirements as established by the Council on Dental Education of the American Dental Association and successful review on a competitive basis of the student credentials by the Admissions Committee.

Students interested in the dental program should write to the Admissions Office, School of Dental Medicine, Southern Illinios University at Edwardsville, 2800 College Avenue, Alton, Illinois 62002.

GRADUATE SCHOOL

The Graduate School, SIUE offers 38 degree programs leading to eleven degrees. The Graduate School enrolls twenty percent of all the students at SIUE. Degrees , majors, and specializations are listed below. For information on admission to the Graduate School, students should contact the Graduate Admissions and Records Office, Rendleman Building 2215, where they may pick up a Graduate School catalog.

MASTER OF ARTS

Behavioral Science
Biological Sciences
Economics
English/American and English Literature
English/American Studies
English/Junior College Teaching
English/Linquistics
Geographical Studies
Government
History
Philosophy
Philosophy/Women's Studies
Psychology/Clinical-Adult
Psychology/General-Academic
Psychology/Industrial-Organizational
Sociology
Speech/Speech Communication

MASTER OF BUSINESS ADMINISTRATION

MASTER OF CITY AND REGIONAL PLANNING

MASTER OF FINE ARTS

Art/Art Education
Art/Studio

MASTER OF MUSIC

Music/Music Education
Music/Music Performance

MASTER OF PUBLIC ADMINISTRATION

MASTER OF SCIENCE

Biological Sciences
Chemistry
Economics
Environmental Studies/General
Environmental Studies/Science
Geographical Studies
Government
Management Information Systems
Mass Communications
Mathematics
Nursing/Medical-Surgical
Nursing/Psychiatric-Mental Health
Physics
Psychology/Community-School
Speech/Speech Pathology
Urban Affairs and Policy Analysis

MASTER OF SCIENCE IN EDUCATION

Business Education
Counselor Education/Community Counseling
Counselor Education/School Counseling
Educational Administration and Supervision
Elementary Education
Instructional Technology
Physical Education
Special Education
Secondary Education with teaching fields in:
- Art Education
- Biology
- Chemistry
- English
- Foreign Languages
- Geography
- Government
- History
- Mathematics
- Physics
- Reading
- Speech

MASTER OF SCIENCE IN ENGINEERING

Civil Engineering
Electrical Engineering

EDUCATIONAL SPECIALIST

Counselor Education
Educational Administration and Supervision
Secondary Education

DOCTOR OF EDUCATION

Instructional Process

UNIVERSITY FACILITIES

The buildings on the central campus of SIUE, arranged around the Delyte W. Morris Quadrangle, are convenient to reach between classes and during inclement weather. Designed as an integral unit, all have common architectural features—courts, terraces, balconies—but each is planned for specific instructional uses.

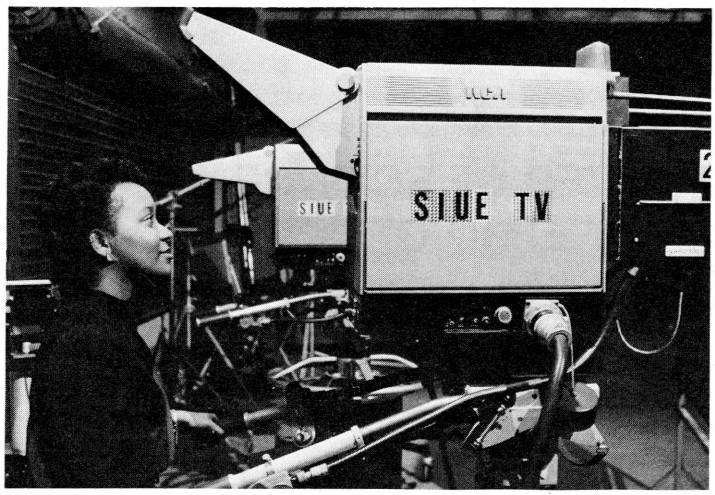
LOVEJOY LIBRARY

The University Library maintains a collection of 736,000 volumes, 6,400 periodical and serial subscriptions, 557,000 microform units and 23,500 audio records. This collection is supplemented by an extensive U.S. Government Documents Depository and a Special and Research Collections department.

In addition, the Library maintains a branch library at the East St. Louis Campus. Accessibility for students on that campus to Lovejoy's collection is assured through a computer and telephone link.

COMMUNICATIONS BUILDING

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 structure houses the School of Fine Arts and Communications and the broadcasting studios of WSIE-FM. The University's central computer installation is also located in this building.



SCIENCE LABORATORY BUILDING

The sciences laboratories for research and instruction in biology, chemistry, physics, the engineering laboratories, and the mathematics and academic computer facilities are centrally located in the Science Laboratory Building.

UNIVERSITY CENTER

The University Center serves as the home of many activities and services. The University Information Center is located in this building to assist persons who have questions about the campus. The Center provides food service for students, faculty, and guests; it also offers recreational facilities, including a sixteen-lane bowling alley, table tennis facilities, billiards room, and a card and game lounge. Other amenities include the bookstore, the Barber and Beauty Shop, television room, video room, conference rooms, and an art gallery. Dances, movies, various entertainment programs, and other functions are held in the grand ballroom.

JOHN S. RENDLEMAN BUILDING

The administration building, named for SIUE's first president, contains offices of the University administration. The Dean of Students, Admissions and Records Office, the Bursar, Health Service, and Continuing Education and Week End University are located in the Rendleman building. Fast Copy service and a branch of the U.S. Postal Service are located on the lower level of the building.

CLASSROOM BUILDINGS II AND III

Classroom Buildings II and III are located to the north of the Peck Building. The two buildings form a single complex connected by tunnel and skywalk. Faculty for the Schools of Business, Education, Nursing, and Social Sciences share the buildings with lecture halls, instructional laboratories, and conference rooms.

SAM M. VADALABENE CENTER FOR HEALTH, RECREATION AND PHYSICAL EDUCATION

This is the University's multi-purpose facility for campus-wide recreation and sports, both intramural and intercollegiate. The building, located on the north edge of the central academic core is named for State Senator Sam M. Vadalabene. The building includes a swimming pool, racquetball courts, a 33,000 sq. ft. multipurpose room, locker and shower facilities, and rooms for gymnastics, dance, combative and weight lifting sports. Several laboratories and classrooms are included as well as offices for the Athletics staff and the Department of Health, Recreation and Physical Education.

THEATER PERFORMANCE FACILITY

This facility located just northwest of the main core is used as a student experimental theater. The building includes dressing rooms, storage and a main stage area with a seating capacity of up to 200 people.

PECK CLASSROOM BUILDING

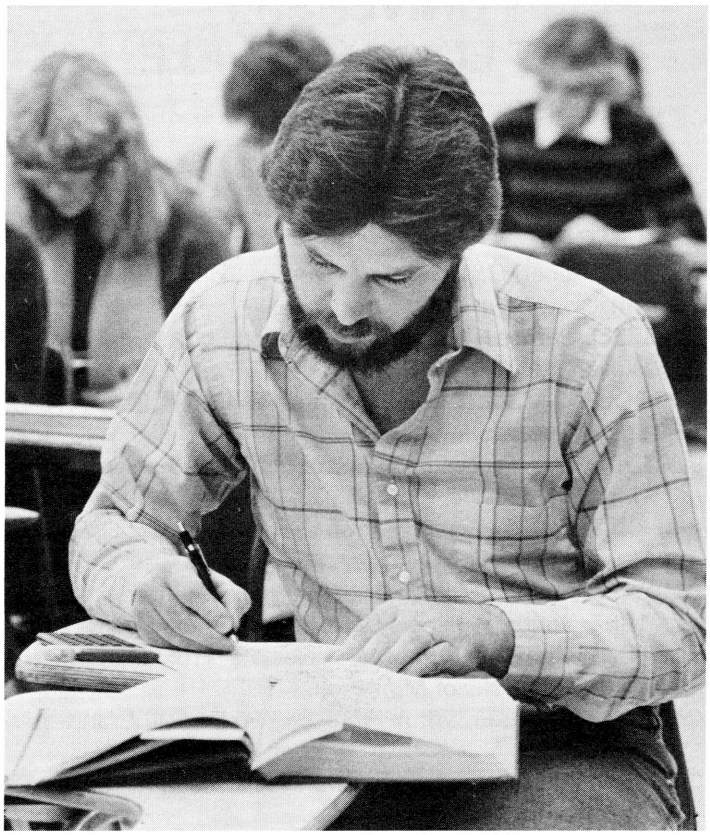
The first building opened on campus, the Peck Building is named for John Mason Peck, an early pioneer and educator in this region and the founder of Shurtleff College in Alton, Illinois, which now houses the School of Dental Medicine. The Peck Building is home for the Schools of Humanities, Social Sciences, the Anthropology Teaching Museum, the Communications Laboratory, a microcomputer laboratory, and laboratories for foreign language instruction. The Office of Academic Services, which includes Advisement, Placement, Counseling and Testing, Academic Resource Center, and Office of International Education is also located in this building. Two of the wings, opening from a center court, are used for classrooms; the remaining one is used for faculty offices.

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 constructed through private donations.

OTHER FACILITIES

Additional facilities such as the Supporting Services Building, the Wagner Complex of Art and Design studios, the Clifford H. Fore Environmental Resources Training Center, the School of Dental Medicine at Alton, and the East St. Louis Campus are located at various points away from the academic core.



OFFICERS AND FACULTY OF THE UNIVERSITY

SOUTHERN ILLINOIS UNIVERSITY

BOARD OF TRUSTEES

	Home Town	Term Expiration
Harris Rowe, Chairman	Jacksonville	1989
A. D. Van Meter, Jr., Vice-Chairman	Springfield	1987
Carol Kimmel, Secretary	Moline	1989
Ivan A. Elliott, Jr.	Carmi	1985
Crete B. Harvey	Sterling	1987
William R. Norwood	Rolling Meadows	1989
George T. Wilkins, Jr.	Edwardsville	1985
Sharon Hutcherson	Carbondale	1984
David Berry	Edwardsville	1984

OFFICERS OF ADMINISTRATION

THE SOUTHERN ILLINOIS UNIVERSITY SYSTEM

Kenneth A. Shaw, Chancellor
James M. Brown, Vice-Chancellor

SOUTHERN ILLINOIS UNIVERSITY AT EDWARDSVILLE

Earl E. Lazerson, President
Barbara Teters, Vice President and Provost
Earl Beard, Director of University Personnel Services
James R. Buck, Director of Development and Public Affairs
John Reiner, Director of Planning & Resource Management
Luther D. Statler, Director of Supporting Services

SOUTHERN ILLINOIS UNIVERSITY AT EDWARDSVILLE FACULTY

EMERITUS FACULTY LISTING

ANDREE, Robert G., Emeritus Professor, Ed.D., 1942, Harvard University

BALTZELL, James H., Emeritus Professor, Ph.D., 1952, Indiana University

BARDOLPH, Marinus P., Emeritus Professor, Ph.D., 1947, State University of Iowa

BEAR, David E., Emeritus Professor, Ed.D., 1958, Washington University

BISHOP, Myron C., Emeritus Professor, M.A., 1938, Ohio State University

BRIDWELL, James G., Emeritus Associate Professor, M.A., 1967, Southern Illinois University at Edwardsville

BURTON, Mabel G., Emerita Associate Professor, M.P.H., 1948, University of Minnesota

CAMPISI, Paul J., Emeritus Professor, Ph.D., 1947, University of Chicago

CARR, Morris, Emeritus Assistant Professor, M.S., 1942, University of Illinois

CASSTEVENS, E. Reber, Emeritus Associate Professor, M.S., 1970, Southern Illinois University at Edwardsville

COLLIER, James E., Emeritus Professor, Ph.D., 1951, University of Nebraska

COX, Homer L., Emeritus Professor, Ed.D., 1955, Northwestern University

DALE, Edwin E., Emeritus Professor, D.D.S., 1943, University of Illinois

DANIELS, Gladys R., Emerita Assistant Professor, M.A., 1940, University of Illinois

DAVIS, Howard V., Emeritus Professor, Ed.D., 1955, Washington University

DRAKE, Gertrude G., Emerita Professor, Ph.D., 1939, Cornell University

DREIFKE, Herman A., Emeritus Associate Professor, M.A.Ed., 1959, Washington University

DUNHAM, Katherine, Emerita University Professor, Ph.B., 1937, University of Chicago

DUSTIN, John E., Emeritus Professor, Ph.D., 1958, University of Illinois

EDERLE, Helen, Emerita Professor, M.A., 1929, University of Illinois

FREEMAN, Ruges R., Emeritus Professor, Ph.D. 1972, Washington University

FRUEND, William F., Emeritus Professor, M.S., 1950, University of Wisconsin

GLASER, Kurt, Emeritus Professor, Ph.D., 1941, Harvard University

GOING, William T., Emeritus Professor, Ed.D., 1954, University of Michigan

GOODE, Helen D., Emerita Professor, Ph.D., 1962, University of Kansas

GOODMAN, William, Emeritus Professor, Ph.D., 1950, Ohio State University

GOODWIN, George H., Emeritus Professor, Ed.D., 1955, University of Florida

GUENTHER, Paul F., Emeritus Professor, Ph.D., 1954, University of North Carolina

GWIN, James M., Emeritus Professor, Ph.D., 1949, Cornell University

HAINES, Harold, Emeritus Professor, M.A., 1962, University of New Mexico

HILBERRY, Harry H., Emeritus Professor, Ph.D., 1949, Harvard University

HILEMAN, Olin, Emeritus Professor, Ed.D., 1962, George Peabody Teachers College

HUDGINS, Billy D., Emeritus Assistant Professor, LL.B., 1951, Washington University

INGWERSON, Ina J., Emerita Associate Professor, M.S.N., 1962, Washington University

KASISKE, Florence, Emerita Professor, M.S., 1966, University of Illinois

KAZECK, Melvin E., Emeritus Professor, D.Ed., 1953, Columbia University

KING, Donald, Emeritus Professor, Ed.D., 1962, University of Arkansas

KLEIN, Walter C., Emeritus Associate Professor, H.S.D., 1958, Indiana University

KNOERNSCHILD, Erna A., Emerita Associate Professor, Ph.D., 1971, Saint Louis University

KOCHMAN, Andrew J., Emeritus Professor, Ph.D., 1956, University of Wisconsin

KURTH, Rudolf O. E. W., Emeritus Professor, Ph.D., 1948, University of Berne

LEE, Charles A., Emeritus Professor, D.Ed., 1936, Columbia University

LEE, Roy E., Emeritus Assistant Professor, M.A. in Ed., 1965, Washington University

LIVINGSTON, Don A., Emeritus Professor, Ph.D., 1948, Saint Louis University

LOVELL, S. D., Emeritus Professor, Ph.D., 1954, Ohio State University

LUCK, David J., Emeritus Professor, Ph.D., 1947, University of Texas

MARTI, Fritz, Emeritus Professor, Ph.D., 1922, University of Berne

MASON, Robert E., Emeritus Professor, Ph.D., 1949, Columbia University

MCAFEE, Wilbur, Emeritus Associate Professor, M.A., 1948, University of Illinois

MCCLELLAND, Lucille, Emerita Professor, Ph.D., 1967, Saint Louis University

MCHARGUE, Daniel S., Emeritus Professor, Ph.D., 1949, University of California at Los Angeles

MEREDITH, Cameron W., Emeritus Professor, Ph.D., 1951, University of Michigan

MILOVICH, Catherine E., Emerita Professor, M.A., 1939, Columbia University

MOORE, Virginia, Emerita Professor, Ed.D., 1963, University of Illinois

MURPHY, Mabel A., Emerita Professor, M.A., 1940, University of Southern California

OURSLER, Clellie C., Emeritus Professor, Ph.D., 1958, Illinois Institute of Technology

PARRILL, Irwin H., Emeritus Professor, Ph.D., 1939, State University of Iowa

PELLEGRINO, Alfred G., Emeritus Professor, Ph.D., 1952, Universite de Montreal

ROBINSON, James L., Emeritus Associate Professor, M.A., 1950, Northwestern University

ROSENTHAL, Herbert H., Emeritus Professor, Ph.D., 1955, Harvard University

RUFFNER, Ralph W., Emeritus Vice President, Ed.D., 1948, George Washington University

RUSSELL, Ivan L., Emeritus Professor, Ph.D., 1955, University of Michigan

SCHNABEL, John H., Emeritus Professor, Ed.D., 1955, Indiana University

SCOTT, Ralston D., Emeritus Professor, Ph.D., 1951, New York University

SHAFFER, V. Faye, Emerita Professor, Ed.D., 1966, University of Illinois

SHOWERS, Norman E., Emeritus Professor, Ed.D., 1966, University of Southern California

SMITH, Mary Belle, Emerita Professor, M.A., 1935, State University of Tennessee

SMITH, R. Dale, Emeritus Professor, Ph.D., 1939, University of Pittsburgh

SOPER, Daniel, Emeritus Professor, Ph.D., 1952, Syracuse University

SPAHN, Raymond J., Emeritus Professor, Ph.D., 1938, Northwestern University

STARR, Fay H., Emeritus Professor, Ph.D., 1964, University of Texas

TAYLOR, Marion, Emerita Professor, Ph.D., 1931, University of Iowa

TUDOR, William J., Emeritus Professor, Ph.D., 1946, Iowa State University

TULLOSS, Dorothy E., Emerita Professor, D.Mus.A., 1964, Boston University

VANSYOC, Wayland B., Emeritus Professor, Ph.D., 1959, University of Michigan

VASILEFF, Vasil, Emeritus Professor, D.D.S., 1950, Saint Louis University

VINCENT, Vern H., Emeritus Professor, Ph.D., 1957, University of Michigan

VOGET, Fred W., Emeritus Professor, Ph.D., 1948, Yale University

WANTLING, Dale, Emeritus Professor, Ph.D., 1949, Ohio State University

WARREN, Edwin, Emeritus Professor, Ph.D., 1952, University of Michigan

WHEAT, Leonard B., Emeritus Professor, Ph.D., 1931, Columbia University

WILLIAMS, Ollie Mae, Emerita Professor, B.L.S., 1942, Emory University

WOOD, Gordon R., Emeritus Professor, Ph.D., 1941, Princeton University

FACULTY LISTING

ABBOTT, John Cushman, Lovejoy Library, Ph.D., 1957, University of Michigan

ADES, John I., English Language and Literature, Ph.D., 1963, University of Cincinnati

AHLBRAND, William P., Secondary Education, Ph.D., 1968, Washington University

ALLEN, Nancy, A., School of Nursing, M.S.N., 1980, Rush University

ALLSUP, Gene D., Educational Administration, Ph.D., 1966, Southern Illinois University at Carbondale

ALTES, Jane A., Sociology, Ph.D., 1982, Saint Louis University

ALY, Hadi Hussain, Physics, Ph.D., 1960, University - United Kingdom

ANDERSON, Daniel J., Art & Design, M.F.A., 1970, Cranbrook Academy of Art

ANDERSON, Robert O., Speech Communication, Ph.D., 1971, University of Missouri-Columbia

ANDERSON, Thomas P., School of Engineering, Ph.D., 1961, Northwestern University

ANDRIS, James F., Foundations of Education, Ph.D., 1974, Indiana University

ARCHANGEL, Rosemarie, Health, Recreation and Physical Education, Ph.D., 1968, University of Iowa

ARNOLD, George, School of Engineering, Sc.D., 1964, Washington University

ASCHENBRENNER, Joyce, Anthropology, Ph.D., 1967, University of Minnesota

ASTOUR, Michael C., Historical Studies, Ph.D., 1962, Brandeis University

AUBUCHON, Betty L., School of Nursing, M.S.N., 1975, Saint Louis University

AUCAMP, Donald C., Management Systems and Sciences, Sc.D., 1971, Washington University

AULT, David E., Economics, Ph.D., 1969, University of Illinois

AUSTIN, James C., English Language and Literature, Ph.D., 1952, Western Reserve University

AXTELL, Ralph William, Biological Sciences, Ph.D., 1958, University of Texas

BACCUS, Mary G., School of Nursing, M.S.N., 1973, University of Illinois

BADEN, Donald James, Curriculum and Instruction, Ed.D., 1973, University of Houston

BAGCHI, Deipica, Earth Science, Geography and Planning, Ph.D., 1977, Agra University, India

BAICH, Annette, Biological Sciences, Ph.D., 1960, University of Oregon

BAILEY, Dale S., English Language and Literature, Ph.D., 1961, Indiana University

BAIN, Ralph L., Chemistry, Ph.D., 1964, Oregon State University

BAKER, William Bryan, Earth Science, Geography and Planning, Ph.D., 1958, University of Nebraska

BARKER, John A., Philosophical Studies, Ph.D., 1967, Tulane University

BARLOW, Hugh D., Sociology, Ph.D., 1973, University of Texas
BARRINGER, Robert L., Management Systems and Sciences, Ph.D., 1956, Massachusetts Institute of Technology
BELL, Doris E., School of Nursing, Ph.D., 1979, Saint Louis University
BENGTSON, Harlan H., School of Engineering, Ph.D., 1971, University of Colorado
BENJAMIN, James E., Management Systems and Sciences, Ph.D., 1960, University of Illinois
BENNEWITZ, William C., Mathematics, Statistics and Computer Science, Ph.D., 1957, University of Illinois
BERNARDI, Ray D., Business Education and Administrative Services, Ph.D., 1969, University of Oklahoma
BIGHAM, Eldon M., Health, Recreation and Physical Education, M.S., 1969, Southern Illinois University at Edwardsville
BIRNBAUM, Mary Ann, School of Nursing, Ph.D., 1977, Saint Louis University
BLACKHURST, Eric W., Special Education, Ed.D., 1977, University of Northern Colorado
BLACKLEDGE, Walter L., Management, Ph.D., 1951, University of Iowa
BLAIN, Robert R., Sociology, Ph.D., 1967, University of Massachusetts
BLOUNT, Dale F., Management, M.S., 1967, Southern Illinois University at Edwardsville
BOBKA, Louis A., Health, Recreation and Physical Education, M.S., 1959, Southern Illinois University at Carbondale
BOEDEKER, Richard R., Physics, Ph.D., 1959, Saint Louis University
BOLLINI, Raghupathy, School of Engineering, Ph.D., 1971, Purdue University
BOSS, Henry T., Curriculum and Instruction, Ed.D., 1955, Colorado State College
BOSSE, Daniel B., Marketing, Ph.D., 1971, Saint Louis University
BOSSE, Roberta B., English Language and Literature, Ph.D., 1971, Saint Louis University
BOUMAN, Thomas D., Chemistry, Ph.D., 1967, University of Minnesota
BRANZ, Nedra, Historical Studies, M.A., 1957, Southern Illinois University at Carbondale
BRAUNDMEIER, Arthur J., Physics, Ph.D., 1970, University of Tennessee
BRIMER, Richard W., Special Education, Ph.D., 1978, University of Missouri
BRINKMANN, Erwin H., Psychology, Ph.D., 1963, University of Michigan
BRITAN, Gerald M., Anthropology, Ph.D., 1974, Columbia University
BROADBOOKS, Harold E., Biological Sciences, Ph.D., 1950, University of Michigan
BROWN, Johnny Max, Mathematics, Statistics and Computer Science, Ph.D., 1971, Southern Illinois University at Carbondale
BROWN, Julius, School of Engineering, Sc.D., 1963, Washington University
BROWN, Stephen, M., Music, M.Mus., 1970, Southern Illinois University at Edwardsville
BROWN, Warren L., Curriculum and Instruction, Ed.D., 1963, University of Missouri
BROYER, John A., Philosophical Studies, Ph.D., 1967, Southern Illinois University at Carbondale
BRUBAKER, H. Bruce, Educational Administration, Ed.D., 1952, Indiana University
BRUGAM, Richard B., Biological Sciences, Ph.D., 1975, Yale University
BRUKER, Robert M., Curriculum and Instruction, Ph.D., 1972, Southern Illinois University at Carbondale
BUCHERT, Kenneth P., School of Engineering, Ph.D., 1964, University of Missouri-Columbia
BUDDELL, Wilfred, Health, Recreation and Physical Education, Ph.D., 1979, Southern Illinois University at Carbondale
BURCKY, William D., Counselor Education, Ph.D., 1971, Saint Louis University
BUTLER, David L., English Language and Literature, Ph.D., 1972, Saint Louis University
CADY, Lois M., School of Nursing, M.S., 1962, University of Colorado
CALCAGNO, Philip M., Lovejoy Library, M.L.S., 1969, University of Illinois
CAMPBELL, Robert B., Sociology, Ph.D., 1956, University of Wisconsin
CAMPBELL, Wilbur L. Jr., Business Education and Administrative Services Ed.D., 1976, Northern Illinois University
CAREY, Ann L., Speech Pathology and Audiology, Ph.D., 1969, Southern Illinois University at Carbondale
CARLSON, Shirley J., Historical Studies, Ph.D., 1982, Washington University
CARPENTER, Regan, Curriculum and Instruction, Ed.D., 1958, University of Colorado
CARVER, M. Robert Jr., Accounting and Finance, Ph.D., 1980, University of Missouri-Columbia
CASSANELLI, Rino, Foreign Languages and Literature, Ph.D., 1982, Saint Louis University
CHEN, Ching-Chih, Historical Studies, Ph.D., 1973, Harvard University
CHENAULT, Joann, Counselor Education, Ed.D., 1958, University of Kentucky
CHENG, Shirley N., School of Engineering, D.Sc., 1982, Washington University
CHOW, Hau Cheung, Physics, Ph.D., 1977, University of British Columbia
CINGOLANI, Judith, Sociology, M.S.W., 1971, Washington University
CLAUDSON, William D., Music, Ph.D., 1965, Northwestern University
CLEMANS, Kermit G., Mathematics, Statistics and Computer Science, Ph.D., 1953, University of Oregon
CLEMENTS, Donald W., Earth Science, Geography and Planning, Ph.D., 1975, Southern Illinois University at Carbondale
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SUMNER, Mary R., Management Systems and Sciences, Ed.D., 1977, Rutgers University
SWAINE, Richard L., Sociology, Ph.D., 1971, Washington University
SWAMY, Padmanabha N., Physics, Ph.D., 1963, Delhi University
SWEEZEY, Charles, Theater and Dance, M.F.A., 1974, Brandeis University
SYKES, Roslyn Kelley, School of Nursing, M.S., 1973, University of Missouri
TALIANA, Lawrence E., Psychology, Ph.D., 1958, Purdue University
TALLANT, Audrey, M., Theater and Dance, M.F.A., 1977, California Institute of the Arts
TARPEY, Paul R., Management Systems and Sciences, Ph.D., 1979, Saint Louis University
TARWATER, William H., Music, Ph.D., 1958, Peabody College
TAVAKOLI, Amir, School of Engineering, Ph.D., 1983, Georgia Institute of Technology
TAYLOR, John A., Historical Studies, Ph.D., 1972, University of Chicago
TAYLOR, Joyce S., Speech Pathology and Audiology, Ph.D., 1969, University of Missouri
TAYLOR, M. Harvey, Foundations of Education, M.A., 1967, Brigham Young University
TETERS, Barbara J., Government and Public Affairs, Ph.D., 1955, University of Washington
THOMERSON, Jamie E., Biological Sciences, Ph.D., 1965, Tulane University
THOMPSON, Donald, Lovejoy Library, M.A.L.S., 1967, University of Michigan

THOMPSON, Noble R., Earth Science, Geography and Planning, Ph.D., 1973, University of Tennessee
THORNTON, Charles A., Earth Science, Geography and Planning, Ph.D., 1970, University of Tennessee
TRAXLER, Anthony J., Psychology, Ph.D., 1969, Pennsylvania State University
TURNER, Charles J., Curriculum and Instruction, Ed.D., 1954, Columbia University
TURNER, Sarah T., Music, M.A., 1958, Columbia University
VALLEY, David B., Speech Communication, Ph.D., 1972, University of Illinois
VANCAMP, Leonard W., Music, D.M.A., 1964, University of Missouri
VAN HORN, David R., Counselor Education, M.S., 1955, Oklahoma State University
VERDERBER, Nadine L., Mathematics, Statistics and Computer Science, Ph.D., 1974, Ohio State University
VILHAUER, William W., Theater and Dance, Ph.D., 1965, University of Iowa
VIOLA, Ronald E., Chemistry, Ph.D., 1976, Pennsylvania State University
VIOLETTE, Philip E., English Language and Literature, A.B., 1959, Saint Michaels College
VIRGO, John M., Management, Ph.D., 1972, Claremont Graduate School
WAGNER, Robert M., Special Education, Ph.D., 1971, Saint Louis University
WAIT, William B., Management, Ph.D., 1952, Cornell University
WALKER, Betty B., School of Nursing, M.S.N., 1971, Saint Louis University
WALLACE, Norval D., School of Engineering, Ph.D., 1967, Saint Louis University
WANDA, Paul E., Biological Sciences, Ph.D., 1978, Pennsylvania State University
WARD, Lynn D., School of Nursing, M.S.N., 1975, Southern Illinois University at Edwardsville
WARD, William G., Mass Communications, M.S., 1958, Mankato State College
WEAVER, Robert C., Art and Design, M.F.A., 1977, University of Iowa
WEBER, Joseph A., Art and Design, M.S., 1967, Indiana University
WEHLING, Leslie J., Curriculum and Instruction, Ed.D., 1964, Washington University
1964, Washington University
WEINGARTNER, James J., Historical Studies, Ph.D., 1967, University of Wisconsin
WEISS, Stuart L., Historical Studies, Ph.D., 1961, University of Chicago
WELCH, Martha J., School of Nursing, Ph.D., 1973, Case Western Reserve University
WERNER, David J., Management Systems and Sciences, Ph.D., 1969, Northwestern University
WESTEFIELD, Louis P., Government and Public Affairs, Ph.D., 1973, Washington University
WHITE, Hollis L., Speech Communication, Ph.D., 1950, University of Missouri
WHITE, J. Edmund, Chemistry, Ph.D., 1958, Indiana University
WHITESIDE, William R., Special Education, Ph.D., 1969, Southern Illinois University at Carbondale
WHITMORE, William J., Marketing, Ph.D., 1970, Ohio State University
WHITTED, Jack J., Health, Recreation and Physical Education, M.S., 1961, Washington University
WILBRAHAM, Antony C., Chemistry, Ph.D., 1965, Royal Institute of Chemistry
WILEY, W. Deane, Educational Administration, Ph.D., 1966, Claremont Graduate School
WILLIAMS, Robert A., Curriculum and Instruction, Ph.D., 1975, Georgia State University
WILLIAMSON, Ramon N., Music, Ed.D., 1963, Columbia University
WILSON, Christina B., Biological Sciences, Ph.D., 1976, University of Kansas
WILSON, Glenn T., Management Systems and Sciences, Ph.D., 1969, Carnegie-Mellon University
WILSON, Howell K., Mathematics, Statistics and Computer Science, Ph.D., 1964, University of Minnesota
WILSON, Rudolph G., Curriculum and Instruction, B.A., 1964, Stanford University
WINTER, Kamil, Mass Communications, Ph.D., 1963, University - Czechoslvakia
WITTIG, Gertraude C., Biological Sciences, Ph.D., 1955, University - Germany West
WOLF, Robert G., Philosophical Studies, Ph.D., 1970, Saint Louis University
WOODARD, James P., Music, D.Mus., 1966, Florida State University
YARBROUGH, Ronald E., Earth Science, Geography and Planning, Ph.D., 1972, University of Tennessee
ZAHALSKY, Arthur C., Biological Sciences, Ph.D., 1963, New York University
ZANGER, Jules, English Language and Literature, Ph.D., 1954, Washington University
ZAYTZEFF, Veronique, Foreign Languages and Literature, B.A., 1967, University of Paris
ZIEGLER, Robert J., English Language and Literature, Ph.D., 1972, University of Rochester
ZURHEIDE, Frederick W., Physics, M.S., 1959, Southern Illinois University at Carbondale

DEGREES AND PROGRAMS

DEGREES

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 Accounting
B.S.B.A. - Bachelor of Science in Business Administration
B.S.E. - Bachelor of Science in Engineering
Cert. - Certificate Degree
D.M.D. - Doctor of Dental Medicine
Ed. D. - Doctor of Education
Ed. S. - Specialist in Education
M.A. - Master of Arts
M.B.A. - Master of Business Administration
M.C.R.P. - Master of City and Regional Planning
M.F.A. - Master of Fine Arts
M.M. - Master of Music
M.P.A. - Master of Public Administration
M.S. - Master of Science
M.S. in Ed. - Master of Science in Education
M.S.E. - Master of Science in Engineering

MAJORS, DEGREES AWARDED

SCHOOL OF BUSINESS

Accountancy ..... B.S.A.
Business Administration ..... B.S.B.A., M.B.A.
Undergraduate specializations include
Administrative Services
Business Data Processing
Economics
Finance
General Accounting
General Business Administration
Management
Management Information Systems
Manpower and Industrial Relations
Marketing
Personnel Administration
Production and Operations Management
Business Economics ..... B.S.
Business Education ..... B.S., M.S. in Ed.
Economics ..... M.A., M.S.
Management Information Systems ..... M.S.

DELINQUENCY STUDY AND YOUTH DEVELOPMENT CENTER

Human Services ..... B.A., B.S.

SCHOOL OF DENTAL MEDICINE

Dentistry ..... D.M.D.
Family Practice Residency in Dentistry ..... Cert.

SCHOOL OF EDUCATION

Counselor Education ..... M.S. in Ed., Ed. S.
Early Childhood Education ..... B.S.
Educational Administration and Supervision ..... M.S. in Ed., Ed. S.
Elementary Education ..... B.S., M.S. in Ed.
General Science and Mathematics ..... B.S.
Health Education ..... B.S.
Instructional Process ..... Ed. D.
Instructional Technology ..... M.S. in Ed.
Physical Education ..... B.S., M.S. in Ed.
Physical Science Education ..... B.S.
Psychology ..... B.A., B.S., M.A., M.S.
Recreation ..... B.S.
Secondary Education ..... M.S. in Ed., Ed. S.
Special Education ..... B.S., M.S. in Ed.

SCHOOL OF ENGINEERING

Civil Engineering ..... B.S.E., M.S.E.
Construction ..... B.S.
Electrical Engineering ..... B.S.E., M.S.E.
Environmental Studies ..... M.S.
Environmental Systems Technology ..... B.S.
Industrial Engineering ..... B.S.E.

SCHOOL OF FINE ARTS AND COMMUNICATIONS

Art ..... B.A., B.S., M.F.A.
Art and Design ..... B.F.A.
Mass Communications ..... B.A., B.S., M.S.
Music ..... B.A., B.M., M.M.
Speech (Speech Communication specialization) ..... M.A.
Speech (Speech Pathology specialization) ..... M.S.
Speech Communication ..... B.A., B.S.
Speech Pathology and Audiology ..... B.A., B.S.
Theater ..... B.A., B.S.

SCHOOL OF HUMANITIES

English ..... B.A., B.S., M.A.
Foreign Languages and Literature ..... B.A., B.S.
Philosophy ..... B.A., M.A.

INTERDISCIPLINARY

American Studies ..... B.A.

SCHOOL OF NURSING

Nursing ..... B.S., M.S.

SCHOOL OF SCIENCES

Biological Sciences ..... B.A., B.S., M.A., M.S.
Chemistry ..... B.A., B.S., M.S.
Computer Science ..... B.A., B.S.
Mathematical Studies ..... B.A., B.S.
Mathematics ..... M.S.
Physics ..... B.A., B.S., M.S.

SCHOOL OF SOCIAL SCIENCES

Anthropology ..... B.A., B.S.
Behavioral Science ..... M.A.
City and Regional Planning ..... M.C.R.P.
Earth Science ..... B.S.
Economics ..... B.A., B.S.
Geographical Studies ..... M.A., M.S.
Geography ..... B.A., B.S.
Government ..... B.A., B.S., M.A., M.S.
History ..... B.A., B.S., M.A.
Public Administration ..... M.P.A.
Social Work ..... B.S.
Sociology ..... B.A., B.S., M.A.

UNIVERSITY COLLEGE

Liberal Studies ..... B.L.S.

URBAN AFFAIRS AND POLICY ANALYSIS

Urban Affairs and Policy Analysis ..... M.S.

DIRECTORY

ACADEMIC SERVICES, OFFICE OF ..... PB Rm. 1308 692-3701

- Academic Counseling and Advising ..... PB Rm. 1315 692-3701
- Admissions Counselors ..... PB Rm. 1304 692-3715
- Career Planning and Placement ..... PB Rm. 1312 692-3708
- Communications Laboratory ..... PB Rm. 1404 692-3717
- Counseling Center ..... PB Rm. 1307 692-3705
- Evening and Weekend Services ..... PB Rm. 1315 692-3701
- Foreign Student Advisement ..... PB Rm. 1309 692-3701
- Microcomputer Laboratory ..... PB Rm. 1410 692-3717
- Reading Laboratory ..... PB Rm. 1412 692-3717
- Tutoring Laboratory ..... PB Rm. 1414 692-3717

ACCOUNTING AND FINANCE, DEPARTMENT OF

- Accounting ..... Bldg 2 Rm. 2113 692-2633
- Finance ..... Bldg 3 Rm. 2143 692-2638

ADMISSIONS AND RECORDS, OFFICE OF ..... Rendl Rm. 1207 692-2010

- Admissions, Undergraduate ..... Rendl Rm. 1215 692-2720
  toll-free 800-642-7860
- Enrollment ..... Rendl Rm. 1309 692-3866
- Records ..... Rendl Rm. 1202 692-2260

AEROSPACE STUDIES (AFROTC) ..... Bldg 3 Rm. 3180 692-3180

AFFIRMATIVE ACTION, OFFICE OF ..... Rendl Rm. 3229 692-2333

ANTHROPOLOGY, DEPARTMENT OF	PB Rm. 0230	692-2744
ART AND DESIGN, DEPARTMENT OF	Bldg 0194	692-3071
ATHLETICS, INTERCOLLEGIATE	Vadalabene Center Rm. 1040	692-2871
BIOLOGICAL SCIENCES, DEPARTMENT OF	SL Rm. 3316	692-3927
BOOKSTORE	UC	692-2132
BURSAR	Rendl Rm. 1101	692-3122
BUSINESS EDUCATION AND ADMINISTRATIVE SERVICES, DEPARTMENT OF	Bldg 2 Rm. 3112	692-2732
BUSINESS, SCHOOL OF	Bldg 2 Rm. 3314	692-3822
CENTER FOR MANAGEMENT STUDIES	Bldg 2 Rm. 3305	692-2668
CENTER FOR URBAN AND ENVIRONMENTAL RESEARCH AND SERVICES	Bldg 3 Rm. 3334	692-3032
CHEMISTRY, DEPARTMENT OF	SL Rm. 2306	692-2042
CONTINUING EDUCATION, OFFICE OF	Rendl Rm. 1330	692-3210
Scott Air Force Base Resident Center		256-4169
COUNCIL ON INTERINSTITUTIONAL COOPERATION		692-3340
COUNSELOR EDUCATION, DEPARTMENT OF	Bldg 3 Rm. 1145	692-3946
CURRICULUM AND INSTRUCTION, DEPARTMENT OF	Bldg 2 Rm. 1133	692-3082
DEAN OF STUDENTS, OFFICE OF	Rendl Rm 2306	692-2020
DEAN'S COLLEGE	Rendl Rm. 2330	692-3770
DELINQUENCY STUDY AND YOUTH DEVELOPMENT CENTER	Bldg 0165	692-2881
DENTAL MEDICINE, SCHOOL OF	Alton, Bldg 273 Rm. 1107	463-3821
EARLY CHILDHOOD CENTER (DAY CARE CENTER)	Bldg 0124	692-2556
EARLY CHILDHOOD EDUCATION	Bldg 2 Rm. 1136	692-3082
EARTH SCIENCE, GEOGRAPHY AND PLANNING, DEPARTMENT OF	PB Rm. 1220	692-3620
EAST ST. LOUIS CAMPUS	411 E. Broadway Rm. 2029	271-3000
ECONOMICS, DEPARTMENT OF	Bldg 3 Rm. 3134	692-2542
EDUCATIONAL ADMINISTRATION AND INSTRUCTIONAL TECHNOLOGY	Bldg 3 Rm. 1118	692-3277

EDUCATION, SCHOOL OF	Bldg 3 Rm. 1127	692-3350
ENGINEERING, SCHOOL OF	SL Rm. 0335	692-2500
ENGLISH LANGUAGE AND LITERATURE, DEPARTMENT OF	PB Rm. 3206	692-2060
ENROLLMENT CENTER	Rendl Rm. 1309	692-3866
ENVIRONMENTAL RESOURCES TRAINING CENTER	Bldg 7009 Rm. 1102	692-2030
ENVIRONMENTAL STUDIES	SL Rm. 1332	692-3311
EVENING AND WEEKEND STUDENT SERVICES	PB Rm. 1315	692-3701
FINANCE, DEPARTMENT OF	Bldg 3 Rm. 2143	692-2638
FINANCIAL ASSISTANCE (see Student Work and Financial Assistance)		692-3880
FINE ARTS AND COMMUNICATION, SCHOOL OF	CB Rm. 1042	692-2771
FOREIGN LANGUAGES AND LITERATURE	PB Rm. 2328	692-3510
FOREIGN STUDENT ADVISEMENT	PB Rm. 1316	692-3701
FOUNDATIONS OF EDUCATION, DEPARTMENT OF	Bldg 3 Rm. 0109	692-3156
GERONTOLOGY PROGRAM	Bldg 3 Rm. 0138	692-3454
GOVERNMENT AND PUBLIC AFFAIRS	PB Rm. 3219	692-3572
GRADUATE STUDIES AND RESEARCH	Rendl Rm. 2215	692-3160
HEALTH, RECREATION AND PHYSICAL EDUCATION	Vadalabene Center Rm. 1022	692-3252
HEALTH SERVICE	Rendl Rm. 0202	692-2842
HISTORICAL STUDIES, DEPARTMENT OF	PB Rm. 3224	692-2414
HOUSING	Rendl Rm. 1113	692-3931
HUMANITIES, SCHOOL OF	PB Rm. 3421	692-3014
HUMAN SERVICES PROGRAM	Bldg 0165	692-2884
INFORMATION CENTER	UC	692-2739
INSTITUTIONAL RESEARCH AND STUDIES	Rendl Rm. 3202	692-3415
LOVEJOY LIBRARY		
Hours of Service (Recorded Message)		692-2602
Library Information Services		692-2603
MANAGEMENT, DEPARTMENT OF	Bldg 2 Rm. 2123	692-2750

MANAGEMENT SYSTEMS AND SCIENCES, DEPARTMENT OF	Bldg 2 Rm. 2328	692-2504
MARKETING, DEPARTMENT OF	Bldg 3 Rm. 2129	692-3221
MASS COMMUNICATION, DEPARTMENT OF	CB Rm. 1041	692-2230
MATHEMATICS, STATISTICS, AND COMPUTER SCIENCE, DEPARTMENT OF	SL Rm. 1314	692-2385
MUSIC, DEPARTMENT OF	CB Rm. 0160	692-3900
NURSING, SCHOOL OF	Bldg 3 Rm. 2333	692-3956
PHILOSOPHICAL STUDIES, DEPARTMENT OF	PB Rm. 3211	692-2250
PHYSICS, DEPARTMENT OF	SL Rm. 2315	692-2472
PLACEMENT SERVICE	PB Rm. 1312	692-3708
PROFESSIONAL EXPERIENCE PROGRAM (PEP)	Bldg 2 Rm. 3131	692-3840
PSYCHOLOGY, DEPARTMENT OF	Bldg 3 Rm. 0125	692-2202
RELIGIOUS CENTER		692-3246
SCIENCES, SCHOOL OF	SL Rm. 3307	692-3170
SECURITY	Bldg 0115	692-3324
	East St. Louis Campus	271-3000
SEPTEMBER OPTION	Rendl Rm. 3113C	692-3772
SOCIAL SCIENCES, SCHOOL OF	PB Rm. 3117	692-2372
SOCIOLOGY AND SOCIAL WORK, DEPARTMENT OF	PB Rm. 1206	692-3712
SPECIAL EDUCATION, DEPARTMENT OF	Bldg 2 Rm. 1103	692-3896
SPEECH COMMUNICATION, DEPARTMENT OF	Bldg 3 Rm. 3114	692-3090
SPEECH PATHOLOGY AND AUDIOLOGY, DEPARTMENT OF	Bldg 2 Rm. 1300	692-3662
STUDENT ACTIVITIES	UC	692-2686
STUDENT GOVERNMENT	UC	692-3818
STUDENT WORK AND FINANCIAL ASSISTANCE	Rendl Rm. 2308	692-3880
SUMMER UNIVERSITY	Rendl Rm. 3113C	692-3772
TEACHERS' CENTERS IN MATHEMATICS EDUCATION	Bldg 2 Rm. 1120	692-2118
TEXTBOOK SERVICE	LB Rm. 0005	692-3020

THEATER AND DANCE, DEPARTMENT OF	CB Rm. 1031	692-2773
UNIVERSITY CENTER		692-2300
SAM M. VADALABENE CENTER FOR HEALTH, RECREATION, AND PHYSICAL EDUCATION		692-2871
VEHICLE REGISTRATION AND FEES	Rendl Rm. 1101	692-3680
VETERANS' SERVICES	Rendl Rm. 1207	692-3330
VICE PRESIDENT AND PROVOST	Rendl Rm. 3102	692-3772
WEEK END UNIVERSITY	Rendl Rm. 1330	692-3775

BUILDING ABBREVIATIONS

Bldg 009 - Environmental Resources Training Center

Bldg 0124 - Day Care Center (Tract House No.24)

Bldg 0165 - Delinquency Study and Youth Development

Bldg 0168 - Cultural Arts and University Museums (Tract House No.68)

Bldg 0194 - Wagner Complex, Edwardsville

Bldg 2 - Classroom Building 2

Bldg 3 - Classroom Building 3

CB - Communications Building

LB - Lovejoy Library Building

PB - Peck Building

Rendl - Rendleman Building

SL - Science Laboratory Building

UC - University Center

VC - Vadalabene Center

COURSES

Courses listed in this catalog are subject to change through normal academic channels.

AEROSPACE STUDIES

100—3 (1,1,1) THE AIR FORCE TODAY. (a) Examines the role of the Air Force in contemporary society, the basic characteristics of air doctrine, and the mission and organization of the U.S. Air Force. (b) Examines the missions, organizations and weapon systems of U.S. strategic offensive and defensive forces, and general purpose forces. (c) Examines aerospace support forces responsible for research and development, logistics, communications, training, etc. Also addresses the total force structure. One hour lecture and one hour laboratory per week.

200—3 (1,1,1) THE DEVELOPMENT OF AIR POWER. (a) Examines the factors contributing to change in the nature of military conflict and the development of airpower from balloons and dirigibles up to WWII. (b) Examines the development of airpower from WWII to the Korean War. Includes development of an independent Air Force and studies the Berlin Airlift. (c) Examines the development of airpower from the early 1950s through the peaceful employment of airpower in relief missions and civic action programs in the late 1960s, and the air war in Southeast Asia. One hour lecture and one hour laboratory per week. Prerequisite: satisfactory completion of 100 or approval of Professor of Aerospace Studies.

300—9 (3,3,3) AIR FORCE MANAGEMENT AND LEADERSHIP. (a) Development of the understanding of managerial and leadership responsibilities of a manager. Examination of the basic concepts of individual motivation, organizational dynamics, and leadership. Comprehension of the decision making processes. (b) Communication development in the areas of listening, speaking and writing skills for the manager. (c) Application of case study method to develop analysis techniques of current management operations. Three hours of lecture and one hour of laboratory per week. Prerequisite: satisfactory completion of field training or consent of Professor of Aerospace Studies.

350—2 FLIGHT REGULATION AND NAVIGATION. A study of flight regulations, weather, and navigation. Two hours lecture per week. Prerequisite: enrollment in the Air Force ROTC Flight Instruction Program or consent of PAS.

351—9 (3,3,3) NATIONAL SECURITY FORCES IN CONTEMPORARY SOCIETY. Studies the Armed Forces as an integral element of society with an emphasis on the broad range of American and military relations and the environmental context in which U.S. defense policy is formulated and implemented. Special themes include: societal attitudes toward the military, the role of the professional military leader-manager in a democratic society, the fundamental values and socialization process associated with the armed services, the requisites for maintaining adequate national security forces, political, economic and social constraints of the national defense structure, the impact of technological and international developments on strategic preparedness, the variables involved in the formulation and implementation of national security policy, and military justice. Three hour lectures and one hour laboratory per week. Prerequisite: satisfactory completion of 300 or approval of Professor of Aerospace Studies.

SCHOOL OF BUSINESS

ACCOUNTING

201—4 INTRODUCTION TO FINANCIAL ACCOUNTING I. Study of the fundamentals of financial accounting and reporting, including examinaton of the nature and measurement of assets, equities, revenues, and expenses. Also includes the examination of transactions and the preparation of financial statements. Prerequisite: sophomore standing.

202—4 INTRODUCTION TO FINANCIAL ACCOUNTING II. Continuation of Accounting 201. Prerequisite: 201.

210—4 MANAGERIAL ACCOUNTING. A basic study of productive asset resources, including their acquisition, utilization, input-output measurement; cost behavior and structure, cost-volume-profit and breakeven analyses; planning and controlling cost resources, the standard cost system with performance reporting; and budgeting in the accounting system. Open only to non-accounting majors. Credit not acceptable in the Bachelor of Science Degree in Accountancy. Prerequisite: 202.

301—4 INTERMEDIATE ACCOUNTING THEORY AND PRACTICE I. Study of financial accounting concepts and procedures. Examination of measurement and reporting methods with respect to assets, liabilities, owners' equity, revenues, and expenses. Consideration of authoritative pronouncements and their relation to accounting theory and practice. Prerequisite:202.

302—4 INTERMEDIATE ACCOUNTING THEORY AND PRACTICE II. Continuation of Accounting 301. Prerequisite: 301 with grade of C or better.

303—4 INTERMEDIATE ACCOUNTING THEORY AND PRACTICE III. Study of selected complex accounting issues from both a theoretical and practical viewpoint. Topics include pensions, leases, tax allocation, changing proces, and other reporting and disclosure issues. Prerequisite: 302 with grade of C or better.

311—4 MANAGERIAL AND COST ACCOUNTING I. Cost-volume-profit relationships; forecasting (including simple linear

regression); product costing (job order-process; actual-normal-standard; absorption-variable); standard costs, variances, investigation; joint products; budgeting. Prerequisite: 202.

312—4 MANAGERIAL AND COST ACCOUNTING II. Short and long term decision making; decisions under uncertainty; allocations; evaluation of segments; transfer pricing; behavioral aspects of information; application of various quantitative techniques. Prerequisite: 311 with grade of C or better.

315—4 ACCOUNTING SYSTEMS. Study of accounting systems, concepts and design. Examination of information needs and flows; special emphasis on internal control. Prerequisites: 302, 311.

321—4 INTRODUCTION TO TAXATION. Study of the Federal tax laws as they pertain to individuals, corporations, estates, and trusts; special emphasis on corporations, including Subchapter S, consolidated returns, and reorganizations. Prerequisite: 302 or concurrent enrollment or consent of instructor.

322—4 ADVANCED TAXATION. Study of the federal tax laws as they pertain to individuals, with special emphasis on tax planning opportunities. Prerequisite: 321 with grade of C or better.

342—4 BUSINESS LAW FOR ACCOUNTANTS. To acquaint the accounting major with legal problems inherent in business transactions and the accounting and auditing implications of such problems. Involves a discussion and application of basic legal principles to areas encountered in professional practice. Includes the Uniform Commercial Code areas of sales, commercial paper, secured transactions, partnerships, corporations agency and bankruptcy. Special emphasis is given to areas covered on the CPA exam. Prerequisite: junior standing.

390—2 INTERNSHIP IN ACCOUNTING. On-the-job professional experience with public accounting firms, industrial firms, or governmental agencies. By arrangement. Prerequisites: 301 with grade of C or better and consent of department chairperson.

401—4 ADVANCED ACCOUNTING TOPICS. Study of selected advanced topics and examination of accounting principles and procedures related to special entities and the formation of these entities. Includes governmental units, partnerships, multi-corporate entities, and foreign transactions. Primary emphasis is upon business combinations and consolidated financial statements. Prerequisites: 303, good standing in Accountancy program.

403—4 SENIOR SEMINAR IN FINANCIAL ACCOUNTING THEORY. Theoretical study of asset, equity, and income measurement. Consideration of various theoretical issues related to financial accounting. Examination and evaluation of authoritative pronouncements from a theoretical viewpoint. Prerequisites: 303, good standing in Accountancy Program.

411—4 ADVANCED MANAGERIAL ACCOUNTING. Seminar on information economics, simulation, multiple regression, linear programming applications, decomposition of variances, allocation theory, human information processing, agency theory. Readings, cases, papers, computer applications. Prerequisites: 312, MS 251, good standing in Accountancy Program or consent of instructor.

431—4 PRINCIPLES OF AUDITING. Overview of auditing; the auditor's decision process; understanding of the client's business; development of audit working papers. In-depth study of the nature of audit tests; statistical sampling applications; impact of EDP systems on auditing; preparation of the audit report; examination of current pronouncements. Prerequisites: 315, 303, good standing in Accountancy Program.

433—4 ADVANCED AUDITING TOPICS. Study of selected topics in auditing, such as the environment of auditing, the auditor's legal liability, problems of internal auditing, moral and ethical judgments. Prerequisites: 431, good standing in Accountancy Program.

490—1 to 8 INDEPENDENT STUDY IN ACCOUNTING. Investigation of 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 eight credit hours so long as no topic is repeated. Prerequisites: consent of instructor, department chairperson and good standing in Accountancy Program.

ADMINISTRATIVE SERVICES

310—4 WORD PROCESSING OPERATIONS. An analysis of and skill development in word processing including input, output, revision, distribution, and storage. Exposure to organization and control, job responsibilities, and career areas in word processing. Prerequisite: one quarter of typewriting or typing at least 30 wpm.

311—4 ADVANCED WORD PROCESSING OPERATIONS. An analysis of and skill development in advanced word processing operations including system and equipment considerations, dictionary creation/maintenance, automated spelling and grammar checks, transcription from machine dictation, creation and manipulation of data bases, merging capabilities, and integration of data processing and word processing. Prerequisite: 310.

426—4 ANALYZING INFORMATION AND ADMINISTRATIVE SUPPORT SYSTEMS. An analysis of administrative support and information systems including data entry, data processing, transactive processing, communications, clerical services, reprographics, word processing, mail services, records management. The development of skill in using analysis tools such as task lists, work distribution charts, decision tables, playscript, flow charts, forms analysis, work simplification, layout flow analysis, and cost measures. Emphasis on field projects in which tools are used to analyze real information and support systems.

427—4 INFORMATION STORAGE AND RETRIEVAL SYSTEMS. The requisites for records administration. The value of files and their creation, control, retention, and disposition. Applications to such records as medical, legal, educational. Prerequisite: 426 or equivalent.

428—4 SYSTEMS AND PROCEDURES. A problems approach to the office systems-procedures function in the modern business firm; seminar and laboratory work on improvement of systems and procedures, administrative information and paperwork engineering; theory of office-systems design; systems administration and work simplification. Prerequisite: 426 or consent of instructor.

429—4 INTERNSHIP IN ADMINISTRATIVE SERVICES. Applications of analysis tools acquired in 426, 427, and 428 to real business situations under the supervision of administrative services personnel in area business firms. Must spend a minimum of 10 contact hours per week for the quarter in one or more administrative services units. Preparation of a report in which a specific problem associated with a unit is identified and analyzed and recommendations delineated. Group seminars are held biweekly for the exchange of views on problems identified and recommended solutions. Administrative services personnel from area firms are invited to participate. Prerequisites: 426, 427, 428 or their equivalent, consent of instructor.

430—4 WORD PROCESSING SYSTEMS. The analysis and design of word processing systems for integrated and non-integrated offices including the creation, transcription, editing, reproduction, distribution, and storing of information. Includes management strategies for organizing, staffing, procedures, work measurement, layout, equipment, feasibility, integration of WP and DP, and costs of current systems and management strategies. Prerequisites: MIS 200 and 381.

BUSINESS EDUCATION

201—4 BEGINNING TYPEWRITING. Mastery of the keyboard, speed and accuracy in the touch operation of the typewriter, and skill and knowledge needed for vocational and personal uses. May not be taken for credit if have had previous high school or other formal instruction in typewriting.

202—4 INTERMEDIATE TYPEWRITING. Mastery of the keyboard, speed and accuracy in the touch operation of the typewriter, and skill and knowledge needed for vocational and personal uses. Prerequisites: 201 or one semester of other formal instruction in typewriting, ability to type at least 30 words per minute.

221—12 (4,4,4) SHORTHAND AND TRANSCRIPTION. Study of Gregg shorthand theory and the development of skill and knowledge required for dictation and transcription. (a) Prerequisite: may not be taken for credit by students who have had previous high school or other formal instruction in shorthand. (b) Prerequisite: 221a or one semester of other formal instruction in shorthand-transcription. (c) Prerequisite: 221b or two semesters of other formal instruction in shorthand-transcription and the ability to take new-matter dictation at 60 words per minute for three minutes.

222—4 FORKNER SHORTHAND FOR PERSONAL USE. Designed to provide students with skill in using Forkner shorthand to record course and library notes, term paper ideas, and other school and personal communications. May not be taken for credit by students with credit in 242 or 262.

225—8 (4,4) MACHINE SHORTHAND. The development and application of skill in the use of machine shorthand. Students wishing to further skills should follow 225b with 221c. Prerequisite for (a): 201 or equivalent; for (b): 202 or equivalent.

230—4 SECRETARIAL/CLERICAL SKILLS. Designed to supply workers with secretarial/clerical skills in the areas of composing letters, report writing, editing, grammar and spelling skills, and word division rules, capitalization rules, and number rules, machine transcription, and word processing. Prerequisite: two quarters of typing or typing speed of 40 wpm.

242—4 FORKNER SHORTHAND FOR COMMUNICATIONS SPECIALISTS. Designed to provide majors in TV, radio, journalism, and other communication specialties with skill in using Forkner shorthand to record notes of interviews, speeches, programs, and to record ideas swiftly. May not be taken for credit by students with credit in 222 or 262.

262—4 FORKNER SHORTHAND. The development of dictation and transcription skills in Forkner shorthand. Designed for preparation of secretarial or business teaching careers. Students wishing to further skills should follow 262 with 221b. May not be taken for credit if credit in 222 or 242. Prerequisite: 201 or equivalent.

324a—4 ADVANCED SHORTHAND AND TRANSCRIPTION I. The development of high-level dictation and transcription skill and knowledge. Prerequisites: 22lc or three semesters of other formal instruction in shorthand-transcription and the ability to transcribe on the typewriter new-matter dictation taken at a sustained rate of 80 words per minute.

327—4 ADVANCED TYPEWRITING AND OFFICE PROCEDURES. Further development of production typewriting within a study of office efficiency pertaining to administrative functions, filing procedures, word processing, dictating and transcribing equipment, copy systems, selection and utilization of information storage systems, as well as the knowledge and skills necessary for decision-making in secretarial activities. Prerequisite: 202 or equivalent.

350—4 CONSUMER INCOME MANAGEMENT. The development of concepts relative to the management of the personal financial affairs of the American consumer. Budgeting income and expenses, installment purchasing, and comparison of prices, insurance, real estate, taxation, and savings and investments.

402—4 TEACHING TYPEWRITING AND OFFICE PRACTICE. Instructional procedures, skill-building principles and techniques, selection and preparation of instructional materials, standards of achievement, and evaluation of pupil performance. Prerequisite: 327 or equivalent.

404—4 TEACHING SHORTHAND AND TRANSCRIPTION. Instructional procedures, skill-building principles and techniques, selection and preparation of instructional materials, standards of achievement, and evaluation of pupil performance. Prerequisite: 324a or equivalent.

405—4 TEACHING GENERAL BASIC BUSINESS SUBJECTS. Instructional procedures, analysis and selection of materials, preparation of teaching units, evaluation of pupil performance. Prerequisites: 350 or equivalent, Economics 201, 202.

408—4 TEACHING DATA PROCESSING AND BOOKKEEPING. Instructional procedures, analysis and selection of materials, preparation of a teaching unit in data processing, and evaluation of pupil performance. Prerequisites: Accounting 201, 202, Management Information Systems 200 or equivalent.

414—4 ORGANIZATION AND ADMINISTRATION OF COOPERATIVE VOCATIONAL EDUCATION PROGRAMS. Philosophy and objectives of cooperative vocational programs, methods of selecting students and work stations, placing and supervising students on part-time jobs, preparation of instructional materials, job analyses, conducting related information courses, evaluating workers and work stations, advisory committees, and public relations aspects of cooperative programs.

415—6 SUPERVISED BUSINESS EXPERIENCE AND RELATED STUDY. Classroom study of the principles and problems of coordinating in-school and cooperative vocational business education programs, with analysis and evaluation of on-the-job experience of the members of the class in relation to their future work as coordinators and vocational teachers.

416—4 COOPERATIVE WORK EXPERIENCE COORDINATION TECHNIQUES. Development of techniques for initiation, implementation, and operation of cooperative work experience coordination including student diagnosis, community relations, press and communication relations, interdisciplinary relations and activities, student evaluation, follow-up studies of programs, and current issues in vocational education. Prerequisite: 414 or equivalent with consent of instructor.

490—1 to 4 INDEPENDENT STUDY IN BUSINESS EDUCATION. An investigation of topical areas in greater depth than regularly titled courses permit. Individual or small group readings and projects. May be repeated for total of 4 hours. Prerequisite: consent of instructor or department chairperson.

ECONOMICS

201—4 PRINCIPLES OF MICROECONOMICS. Principles and characteristics of the market economy. Household and firm behavior, supply and demand, markets for goods and resources, market structure, and the regulation of business and labor. Prerequisite: GSM 144 or equivalent with grade of C or better.

202—4 PRINCIPLES OF MACROECONOMICS. Introduction to the measurement and determination of the quantity of goods and services produced by the U.S. economy and the level of employment and prices. The role of the government in determining the rates of unemployment and inflation through its spending, taxes, control of the money supply, and income policies. Prerequisite: GSM 144 or consent of instructor.

305—4 ENGINEERING ECONOMICS. Economic decisions in engineering. Economic principles applied to design of materials, method of production, location, use of machines, employment of personnel, choices of long-run investments, and other considerations. Prerequisites: 201, Math 260a.

321—4 ECONOMIC HISTORY OF THE UNITED STATES. European and colonial backgrounds of American economic history; industrialization and economic growth, 1790-1865; transition from an agricultural to industrial economy, 1865-1920; the 1920's, the Great Depression and the New Deal; challenges of the post-war economy. Prerequisites: 201, 202.

327—4 SOCIAL ECONOMICS: ISSUES IN INCOME DISTRIBUTION, EMPLOYMENT AND SOCIAL POLICY. An introduction to the economic factors affecting income distribution, the level of employment, and occupational structure of the U.S. and other economics. Policies to alter income distribution and employment patterns are discussed with emphasis upon the performance of present public assistance programs. Recommended for social work students. Prerequisites: GSS 150, Economics 201, 202.

331—4 LABOR ECONOMICS. Theories of labor force participation, wage determination, and employment; theories of unemployment and economic insecurity; trade unionism; collective bargaining and public policy. Prerequisites: 201, 202.

343—4 MONEY AND BANKING. Study of the relationships between money, credit, prices, and macroeconomic activity; money creation; the role of the Federal Reserve; monetary and fiscal policy; international aspects. Prerequisites: 201 and 202.

345—4 ECONOMICS OF THE PUBLIC SECTOR: NATIONAL. The role of government in the economy, optimum levels of public activities, government budgets, and national income; financing of government expenditures, principles of taxation, examination of the role of fiscal policy. Prerequisites: 201, 202.

400—4 QUANTITATIVE METHODS FOR ECONOMIC AND BUSINESS ANALYSIS. Applications of mathematical tools to economic analysis with emphasis on learning to use calculus and linear algebra in economic models. A systematic survey of mathematical economic models, including optimization, static equilibria, comparative statics, activity analysis (linear pro-

gramming), and the theory and application of input-output models. Prerequisites: 201 and 202 or equivalent.

401—4 INTERMEDIATE MICROECONOMIC THEORY. Determination of prices and quantities in markets for goods and services. Theories of consumer behavior, exchange cost structures, and factor payments. Firm behavior in alternative market structures. Prerequisite: 201.

402—4 INTERMEDIATE MACROECONOMIC THEORY. Classical, Keynesian, and post-Keynesian theories of inflation, employment and the determination of national income. Survey of recent macroeconomic stabilization policy and performance. Prerequisite: 202.

415—4 ECONOMETRICS I. Statistical inference and hypothesis testing. The simple linear regression model. Multivariate regression, relaxation of the classical assumptions, problems of specification, and prediction. An introduction to estimation of simultaneous equations. Prerequisite: MS 251 or equivalent or consent of instructor.

417—4 ECONOMIC FORECASTING. Survey of methods used in macroeconomic forecasting and market forecasts for firms, industries, sectors, or regions. Techniques include econometrics, time-series, indicators, surveys, and input-output analysis. Prerequisites: MS 251 and either Econ 343 or Econ 402 or equivalent; basic knowledge of regression analysis recommended.

421—4 ECONOMIC HISTORY OF EUROPE. Sources of European economic growth before the Industrial Revolution. Development of European agriculture, industry, finance, and international trade after 1750. Prerequisites: 201 and 202.

423—4 HISTORY OF ECONOMIC THOUGHT. Contributions of political and economic philosophers and schools of thought from mercantilism to J. M. Keynes, with emphasis on the development of economic ideas and their influence on contemporary economic theory and national policy. Prerequisites: 201 and 202.

425—4 COMPARATIVE ECONOMIC SYSTEMS. An extensive comparison of the nature and performance of capitalism, communism, socialism, facism, and other economic systems. Prerequisites: 201 and 202.

431—4 LABOR AND PUBLIC POLICY. The government's role in influencing and regulating labor markets and labor behavior; legislation governing conditions within the firm and the labor markets; legislation affecting the growth of the labor market. Prerequisite: 331.

432—4 COLLECTIVE BARGAINING AND DISPUTE SETTLEMENT. An analysis of the collective bargaining process and conflict resolution. Theoretical bargaining models, union governance, and jurisdiction, wages, employment conditions, and the effect of bargaining power in the settlement of labor disputes. Prerequisite: 431 or consent of instructor.

435—4 INDUSTRIAL ORGANIZATION AND PUBLIC POLICY. Analysis of the economic implications of alternative market structures. Investigation of the impact of concentration, economies of scale, advertising, and conglomerates on business behavior and public welfare. Policy issues include regulation, antitrust, and public enterprise. Study and evaluation of current issues in market structure, antitrust policy, and regulation. Prerequisite: 401 or equivalent, or consent of instructor.

443—4 ADVANCED MONEY AND BANKING. Role of money and credit in U.S. economy; the commercial banking market structure and commercial banking operations; nonbanking financial intermediaries, financial markets and the commercial banking system; issues regarding structure, service, and monetary management functions of Federal Reserve System; current approaches to monetary theory and policy; international monetary problems. Prerequisite: 343.

445—4 ECONOMICS OF THE PUBLIC SECTOR: STATE AND LOCAL. Economic functions of government at the state and local levels; analysis of public expenditure and taxation, intergovernmental fiscal relations, budgeting techniques, public choice. Prerequisites: 201 and 202, or consent of instructor.

451—4 AN INTRODUCTION TO URBAN ECONOMICS. Causes of urban growth and analysis of the spatial pattern of economic activity in urban areas; the implications of these for public policy responses to urban problems of housing segregation and racial discrimination, urban transportation and urban environmental pollution. Prerequisite: 401; 400 and 415 suggested.

453—4 LOCATION OF ECONOMIC ACTIVITY. The impact of space upon economic analysis including such topics as the location of economic activity, regional economic development, and the theoretical and practical problems encountered in the planning of land use. Prerequisite: 401; 400 and 415 suggested.

461—4 INTERNATIONAL ECONOMICS. The causes and effects of international trade. The effect on resource allocation, the price level, income and employment. Policy questions including trade barriers and free trade areas. The international monetary system. Prerequisite: 401; 343 or 402 suggested.

463—4 INTRODUCTION TO ECONOMIC DEVELOPMENT. Theory and problems associated with increasing incomes of the less developed countries. Emphasis on the changes in the internal economic structure that must be made for development to be sustained. Prerequisites: 201 and 202.

490—1 to 8 INDEPENDENT STUDY IN ECONOMICS. An investigation of topical areas in greater depth than regularly titled courses permit. Individual or small group readings or research projects are pursued under the supervision of a member of the economics faculty. May be repeated by permission of the department chairperson up to a total of 8 credit hours. Prerequisite: consent of instructor and department chairperson.

FINANCE

320—4 CORPORATION FINANCE. A study of the principal duties of corporate financial officers and the problems of administrative financial management of business. Topics include planning, budgeting and control, external sources of capital. Prerequisites: Accounting 202, Economics 201, 202.

420—4 PROBLEMS IN CORPORATION FINANCE. Application of principles of finance to specific cases. Development of analytical ability and fuller comprehension of the nature of financial problems as encountered in business and industry by combining specific cases and collateral readings. Prerequisite: 320.

430—4 INVESTMENTS. A survey of the investment field in theory and practice. Study of the state and federal agencies concerned with regulation of the issuance and exchange of securities in the interest of the investing public. The analysis of the particular types of investment securities and the bases for investment decisions and the management of investment portfolios. Prerequisite: 320.

435—4 REAL ESTATE FINANCE AND INVESTMENT. A systematic investigation of the basic aspects of income-producing real estate. Various types of property and approaches to the real estate field will be explored. The emphasis is on investment and financing decision-making. The decision models and methodology of finance theory will be relied on throughout the course. Prerequisite: 320 or equivalent.

440—4 FINANCIAL INSTITUTIONS. A study of the evolution, functions, and practices of the many types of financial intermediaries, especially which have come into prominence since World War II. Particular attention to commerce and government. Prerequisite: 320.

445—4 FINANCIAL MARKETS. The study and analysis of the functioning of domestic money and capital markets, including analysis of the possible impact of recent structural and regulatory changes on the flow of funds and interest rates in these markets. The course examines the factors affecting the determinants of the demand for and supply of long-term and short-term funds. Prerequisite: 320 or equivalent.

450—4 INTERNATIONAL FINANCE. An introduction to international financial markets and the economic forces affecting them. Topics to be covered include foreign exchange markets, the balance of payments under different international monetary systems, the analysis of firm short-term investments, and the financing of long-term investments within the international context. Prerequisite: 320 or equivalent.

490—1 to 8 INDEPENDENT STUDY IN FINANCE. An investigation of topical areas in greater depth than regularly titled courses permit. Individual or small group readings or research projects are pursued under the supervision of a member of the economics faculty. May be repeated by permission of the department chairperson up to a total of 8 credit hours. Prerequisite: consent of instructor and department chairperson.

MANAGEMENT

140—4 INTRODUCTION TO BUSINESS. An overview of the basic nature of business in an essentially market-disciplined economic system. Emphasis on the interdisciplinary nature of business and the broad administrative principles governing organized human endeavor. The systems approach is stressed. Introduction to business and economic terminology and to the case method of developing analytical ability. Prerequisite: Junior and senior business majors are not eligible to take this course.

242—4 CONTRACTS AND AGENCY LAW. Study/discussion of the terminology, definitions, and principles of contract law applicable to the contractive problems in the operation of a business, including the relevant provisions of the uniform commercial code. The application of the principles of agency law by the entrepreneur in operating his firm, and his legal liability to his agency and third parties with whom he deals. Prerequisite: junior standing.

290—4 BUSINESS COMMUNICATION. Improvement of the understanding of the vital role of effective communication in business and development of skill in business writing with emphasis on the preparation of reports. Refinement of the skill of listening plus consideration of the quality of speech appropriate for use in business situations. Opportunities to learn to interpret data and present information in a logically organized and acceptable form. Prerequisite: completion of General Studies Skills requirements.

340—4 MANAGEMENT FUNDAMENTALS. Development of the understanding of organizations and of an appreciation of the decision-making skills required of a manager. Examination of all concepts of management and the basic functions—planning, organizing, motivating, and controlling. Emphasizes the reasons for change and progression in managerial philosophy and the role of values as well as the manager's affinity for risk. Prerequisite: junior standing.

341—4 ORGANIZATIONAL BEHAVIOR. Development of the student's knowledge and skill in the application of behavioral science theories and concepts to organizational processes and problems. Emphasis on intrapersonal, interpersonal, small group, intergroup, managerial, and total organizational issues and problems. Prerequisites: 290, 340.

430—4 PERSONNEL ADMINISTRATION. Overview of the personnel function in today's corporate environment, including present theories and future trends; selection, training, labor relations, compensation, as well as EEO, discrimination, OSHA, and ERISA. Provides a practical overview of personnel administration for all levels of line as well as staff personnel. Prerequisite: 340, 341 or consent of instructor.

431—4 MANAGERIAL LEADERSHIP PROCESSES. The leadership function in various organizations and stituations; methods to negotiate influence and increase effectiveness. Both individual and team building processes are developed through cases and/or field study and/or class exercises. Prerequisite: 340, 341, or consent of instructor.

432—4 MANAGERIAL DECISION MAKING PROCESSES. Selected behavioral aspects of Managerial Decision-Making processes in organizations; problems and issues in organizational change which are related to the behavioral aspects of individual and team problem identification and problem solving processes. Student knowledge and skill in decision-making and organizational change processes will be enhanced through both individual and team projects. Prerequisite: 340, 341 or consent of instructor.

433—4 ORGANIZATION THEORY AND DESIGN. A capstone course to develop an understanding of the interrelationships between human, technological, managerial, and environmental factors as these factors influence organizational design. The objective is to explore the dimensions of effective organizational designs through analysis of theoretical models, case studies, and empirical studies. Prerequisites: 340, 341 or consent of instructor.

434—4 MANAGEMENT OF HUMAN RESOURCES. This senior seminar in the concentration of manpower/industrial relations focuses attention on contemporary issues in the area of manpower utilization. Attention to selection, EEOC, interviewing, manpower planning, OSHA, labor-management conflict, and pensions. Prerequisites: 340, 341, 430 or consent of instructor.

435—4 PERSONNEL PLANNING AND SELECTION. Theory and practice of employment, placement, and personnel planning; human resource planning and development; equal employment opportunity/affirmative action programming. Compliance with the legal requirements and selection validation approaches are presented. Heavy attention is given to recruitment and selection. Prerequisite: 430 or consent of instructor.

436—4 COMPENSATION AND BENEFIT ADMINISTRATION. Development and administration of wage and salary programs. Topics include motivation theory, factors influencing compensation levels, job evaluation, forms of compensation, including incentive plans and fringe benefits, special issues of managerial compensation, and problems of compensation control. Major emphasis is given to the role of compensation in attracting, retaining, and motivating employees. Prerequisite: 430 or consent of instructor.

437—4 PERFORMANCE AND PRODUCTIVITY. Seminar dealing with the multiple elements accounting for the decline of U.S. productivity; measurement techniques as a diagnostic instrument for productivity and performance improvement. Involves a full array of policy options at the firm level to improve efficiency of enterprise. Prerequisite: 430 or consent of instructor.

440—4 THE LEGAL ENVIRONMENT OF BUSINESS. Develops an understanding of how the philosophical background of the business environment of the U.S. originated. Analyzes the nature of the U.S. economy from the standpoint of economic theory in order to illustrate the theoretical desirability of keeping it as competitive as possible. For this reason, the roles of the Federal and State Governments in aiding the private sector to achieve this goal through the use of antitrust laws, regulatory agencies, and the general provision of public goods and services form a significant part of the material. Prerequisites: 340, 341, Economics 201, 202, or consent of instructor, and senior standing.

441—4 BUSINESS POLICY. Development of a top-management view leading to the formulation of general policies to be followed by the organization. Determination of objectives, the development of plans for their achievement, organizing administrative personnel to carry them out, implementation of programs, measurement of results, and reappraisal of objectives, plans, and action-patterns in the light of evolving situations. Prerequisites: 341, 440 or consent of instructor, and final quarter standing.

441—1 to 8 BUSINESS POLICY MANAGEMENT PROBLEMS LABORATORY. Promotes application of business knowledge/skills to the analysis of actual complex business problems. Students learn to discover and feasibility test the full range of strategies, policies, and practices used by goal-oriented organizations. Extensive use of a local "data bank" firm plus case studies. Satisfies 4 units of electives plus 441 requirement. Prerequisites: senior business major, consent of instructor.

475—4 to 16 ORGANIZING AND OPERATING A SMALL BUSINESS. Management of a small business, covering topics such as task organization in an informal climate, risk-taking, intra- and inter-personal stress, and emphasizing individualized projects and problems. Graduate students limited to 4 hours credit. Prerequisites: 340, 341, Accounting 201, and senior standing or consent of instructor.

490—1 to 8 INDEPENDENT STUDY OF BUSINESS ADMINISTRATION. An investigation of topical areas in greater depth than regularly titled courses permit. Individual or small group readings or research projects under the direction of a faculty member of the department. May be repeated by permission up to a total of 8 credit hours. Prerequisite: consent of instructor.

MANAGEMENT INFORMATION SYSTEMS

200—4 BUSINESS DATA PROCESSING APPLICATIONS. Exposure to and experience with a variety of commercially available computer hardware and software techniques with emphasis on using them to aid resolution of real problems in business and business courses.

201—24 (4,4,4,4,4,4) COMPUTER PROGRAMMING. An

introduction to computer programming in a specific language utilizing concepts of listing with heading and totals; computations; comparisons; control breaks; tables and/or arrays; and file processing. Students design, write, debug, and process business-oriented programs on the computer in (a) COBOL; (b) BASIC; (c) RPG; (d) PL/I; (e) BAL; or (f) PASCAL. Prerequisite: 200.

281—4 SYSTEMS ANALYSIS AND DESIGN. Introduction to the structures of the systems analysis and design cycle. Theoretical aspects will be coupled with applications to case problems using the tools and techniques of analysis and design. Prerequisite: 200 or introductory course in computers.

301—4 ADVANCED PROGRAMMING USING FILE TECHNIQUES. Advanced programming concepts dealing with arranging, creating, and/or changing data base files on the computer. Students design, write, debug, and process programs on the computer normally in COBOL. A minimum grade of C from MIS 201a or instructor permission is recommended to take this course. Prerequisite: 201a.

381—4 MANAGEMENT INFORMATION SYSTEMS. Study of the application of principles of systems analysis and systems design to business problems. Attention to the complexities involved in the simultaneous design and integration of production, marketing, and other sub-systems. Prerequisite: 200 or concurrent enrollment.

480—4 to 8 SENIOR INTERNSHIP SEMINAR. Synthesis and application of appropriate material from other courses to realistic problems in a simulated working environment. Not available for graduate credit. May be repeated by permission to total of 8 credit hours. Prerequisites: senior standing, consent of instructor.

481—4 COMPUTER PROGRAMMING PROJECTS. The application of programming concepts, file techniques, and systems techniques to a major programming project for the design and writing of a business-oriented system of programs to accomplish designated tasks. A minimum grade of B from MIS 301 is recommended. Prerequisites: 301 and 281/381 or equivalent.

482—4 APPLIED OPERATING SYSTEMS. Examination of the purpose and structure of the class of software called operating systems and their attendant job control languages as seen from the user's point of view. Levels of sophistication and necessary hardware support configurations will be discussed. Prerequisite: 301 or equivalent.

483—SMALL COMPUTER SYSTEMS AND DISTRIBUTED DATA PROCESSING. An analysis of applications of micro- and mini-systems as sole machines in small businesses and as a means of distributing computing power in major corporations. Prerequisite: 281 or 381 or equivalent.

484—4 EDP AUDITING CONTROLS AND CONCEPTS. A study of the administrative procedures, organization controls, documentation standards, and audit trails necessary to insure proper operations of the data processing function. Students will design audit trails for systems, including computer audit programs and procedures. Prerequisites: 281/381 and Accounting 210/310 or equivalent.

485—4 SIMULATION AND MODELING TECHNIQUES. Integration of analysis and simulation modeling. Development of simulation models and use of simulation techniques in problem solving. Prerequisites: 281/381 and MS251 or equivalent.

486—4 DATA BASE AND COMMUNICATION SYSTEMS. An overview of basic terminology and the concepts of data base systems and communication systems. Students will view typical systems and propose improvements based on theoretical concepts. Prerequisites: 281/381 and 301 or equivalent.

489—4 INFORMATION SYSTEMS ADMINISTRATION. A study of the structure and administration of the organizational entities involved in information systems. Special attention will be given to the aspects of multi-discipline project management and management of service operations in a rapid change high technology environment. Prerequisites: 381 or 281 or equivalent and consent of instructor.

490—1 to 8 INDEPENDENT STUDY IN MANAGEMENT INFORMATION SYSTEMS. An investigation of special topical areas. Individual or small group readings or projects are required. May be repeated by permission to a total of 8 hours. Prerequisites: consent of instructor and department chairperson.

495—1 to 4 SEMINAR: MANAGEMENT INFORMATION SYSTEMS. Pertinent issues related to managerial aspects of the computer field. Selected topics, such as Programming Strategies, Job Control Language, Structured Design, etc., will be offered. May be repeated to a total of eight credit hours without repeating topic. Prerequisite: consent of instructor.

MANAGEMENT SCIENCE

251—4 STATISTICAL ANALYSIS FOR BUSINESS DECISIONS. A continuation of statistical concepts as applied to business, including analysis of variance, correlation and regression analysis, stochastic processes, and probability distributions. Prerequisite: GSM 244.

312—4 STATISTICAL ANALYSIS OF BUSINESS ORIENTED PROBLEMS. Sample design and computer software applications to topics covered in intermediate statistics, with emphasis on problems definition, data collection and analysis in business and economics. Prerequisite: 251.

314—4 INTRODUCTION TO DEMAND FORECASTING. An introduction to several commonly used methodologies in business for estimating the demand for the output of the organization. Moving averages, exponential smoothing, proba-

bility models, regression analysis. Methods for evaluating forecast techniques. Analysis of trend and seasonal factors. The use of index numbers. Prerequisite: 251.

320—4 INTRODUCTION TO OPTIMIZATION MODELS. Introduces optimization models, with emphasis on differential calculus and linear programming. Focus on recognizing appropriate applications and evaluating and interpreting the solutions, with emphasis on business and economic related problems. Prerequisite: GSM 144.

402—1 to 4 SEMINAR IN MANAGEMENT SCIENCE. Seminars on varied topics devoted to interpretation and application of quantitative and nonquantitative models to organizational situations. Emphasis on the relation of management objectives to programmed and nonprogrammed management decision information systems. May be repeated to total of eight credit hours without repeating topic. Prerequisite: consent of instructor.

490—1 to 8 INDEPENDENT STUDY IN MANAGEMENT SCIENCE. An investigation of topical areas in greater depth than regularly titled courses permit. Individual or small group readings or research projects. May be repeated by permission up to a total of 8 credit hours. Prerequisite: consent of instructor and department chairperson.

MARKETING

370—4 MARKETING AND ITS ENVIRONMENTS. A macro view of marketing which encompasses an interdisciplinary approach to the analysis and interpretation of consumer buying habits and motives and the resultant purchases of goods and services. The purchaser's psychological, economic, and sociocultural actions and reactions are stressed as they relate to a better understanding of consumption.

371—4 PRINCIPLES OF MARKETING MANAGEMENT. A micro view of marketing which provides an introductory survey of the problems encountered by the marketing executive and the analytical and evaluative systems available which can be used to improve operating efficiency. Emphasis on the use of marketing management factors in the areas of markets, products, distribution, price, and promotion. Prerequisite: 370.

377—4 MARKETING RESEARCH. A development of the concepts necessary for understanding and performing research primarily in the marketing area of business. The basic procedures and theories underlying research are investigated, evaluated and applied to marketing decision-making. Market, advertising, and sales research. Prerequisites: 371, Management Science 251.

470—4 MARKETING LOGISTICS AND DISTRIBUTION. Study, analysis and prescription of systems of managing the flow of raw materials, parts, semi-manufactured and finished goods from their sources to the ultimate consumer. Capabilities of channel members, including storage facilities and their connecting transportation linkages are reviewed, leading to comprehensive system design. Prerequisite: 377 or equivalent.

471—4 ADVERTISING POLICY AND MANAGEMENT. Advertising strategy, planning, and research and their relationship to other marketing tools. Emphasis on problems faced by marketing and business executives in administering and advertising effort. Prerequisite: 377.

472—4 SALES POLICY AND MANAGEMENT. An examination of the organization of the sales effort and of functions of salesmen and sales managers (including all echelons from the general marketing managers to the territory salesmen). Problem areas such as sales department organization, recruitment of salesmen and their motivation and supervision, design and administration of sales territories, appraisal of salesmen's performance. Prerequisite: 377.

474—4 RETAIL MANAGEMENT AND PROMOTION. Functions, organization, and management of retail enterprises; impacts of recent and contemporary forces. Detailed study of merchandising and promotional activities. Retailing careers and appropriate preparation. Prerequisite: 377.

475—4 CONSUMER BEHAVIOR. An analysis of consumer motivation, buying behavior, market adjustment, and product innovation including a survey of explanatory theories of consumer market behavior and producer reactions. Behavioral aspects of the marketing process from the producer to ultimate user, or consumer. Fundamentals of product planning development, engineering, and promotion as part of the total marketing program. Prerequisite: 377 or equivalent.

476—4 INTERNATIONAL MARKETING. The significance of international markets to American firms. Tariffs, social and cultural restrictions, economic and political environments, and legal restrictions. The international distribution system, international pricing decisions, multinational product planning, communications decisions and international marketing research. Prerequisite: 377 or equivalent.

478—4 INTERMEDIATE MARKETING RESEARCH AND DATA ANALYSIS. Advanced consideration of statistical research techniques for analyzing marketing models. Prerequisite: 377.

480—4 ADVANCED MARKETING MANAGEMENT. Development of student's ability to identify marketing problems, investigate alternative solutions, and render decisions. Should be final marketing course taken by undergraduate marketing major. Prerequisites: 377 or equivalent, senior standing.

490—1 to 8 INDEPENDENT STUDY IN MARKETING. An investigation of topical areas in greater depth than regularly titled courses permit. Individual or small group readings or research projects under the direction of a faculty member of the department. May be repeated by permission up to a total of 8 credit hours. Prerequisite: consent of instructor and department chairperson.

PRODUCTION

315—4 PRODUCTION AND OPERATIONS MANAGEMENT MODELS AND SYSTEMS. A study of the basic systems and models of production and operations management. The objectives and relationships of materials management systems including purchasing, production planning, inventory control, and transportation as well as quality control, cost control, and work measurement systems. Basic planning and control models and decision rules. Emphasis on the impingement of real world conditions on such systems and the necessity of integrating such systems. Prerequisite: Management Science 311 or equivalent.

410—4 QUALITY CONTROL SYSTEMS. The study of quality control, product liability control, and reliability systems as well as decision making techniques. Quality specification and design, process quality planning and control, material quality planning and control, and product performance subsystems. X and R charts, sequential sampling plans and continuous sampling techniques. Prerequisite: Management Science 251 or equivalent.

461—4 CAPACITY MANAGEMENT. A study of process technology (macro), capacity planning and control, master production scheduling, work measurement, and priority planning and control. Prerequisite: MS 251, PROD 315, and MS 320 or MS 502 and PROD 522 or consent of instructor.

462—4 INVENTORY MANAGEMENT. Study of aggregate level, joint replenishment, and individual item management; computerized systems for independent and dependent demand. MS 251, PROD 315, and MS 320 or MS 502 and PROD 522 or consent of instructor.

463—4 AUTOMATION AND CAM SYSTEMS. Study of automation, high volume discrete parts production, numerical control manufacturing, CAD/CAM, group technology, and cellular manufacturing. Prerequisites: MS 251, PROD 315, and MS 320 or MS 502 and PROD 522 or consent of instructor.

468—4 POM POLICY/STRATEGY. A study of corporate strategy, operations strategy and their relationship including process technology, product positioning, quality, productivity, and aggregate planning, with emphasis on trade offs. Prerequisites: 461, 462 and 463, or 463 and 522.

490—1 to 8 INDEPENDENT STUDY IN PRODUCTION AND OPERATIONS MANAGEMENT. An investigation of topical areas in greater depth than regularly titled courses permit. Individual or small group readings of projects. May be repeated by permission up to total of 8 credit hours. Prerequisites: consent of instructor and department chairperson.

COLLOQUIUM

300—1 to 4 STUDENT COLLOQUIUM. Student-initiated, student-developed, student-run experimental colloquia. Credit offerings for innovative and experimental student-run courses not otherwise available in the University curriculum. Prerequisite: sophomore standing.

SCHOOL OF EDUCATION

ADULT EDUCATION

490—4 INTRODUCTION TO ADULT AND CONTINUING EDUCATION. An orientation to the nature of the field and major areas of professional practice. Examines basic concepts and issues and analyzes various program areas and institutional settings.

495—1 to 8 SELECTED TOPICS. Varied content related to adult and continuing education. To be offered from time to time as need exists and as faculty interest and time permit. May be repeated until a maximum of 16 hours have been earned provided no topic repeats itself.

COUNSELOR EDUCATION

422—4 EDUCATIONAL MEASUREMENTS. Study of the philosophy and techniques of measurements. Special attention to statistical foundations of and use of teacher-made tests. Prerequisite: consent of instructor.

442—4 INTRODUCTION TO GUIDANCE. Introductory course on student personnel services. Survey of philosophy principles and organization of guidance services. NOT FOR GRADUATE CREDIT.

483—4 COMMUNITY PROGRAMS FOR THE PREVENTION OF JUVENILE DELINQUENCY. Analysis of delinquency prevention in community programs administered by the public schools, social welfare, governmental agencies. A study of the various categories of juvenile delinquency is applied to a critique of existing programs and to the development of experimental programs. The roles of professional workers pertinent to such programs is delineated with special reference to the public school administration, counselor, the social workers, the court, probation officers, and police. Prerequisite: consent of instructor.

EDUCATION

305—4 EDUCATIONAL PSYCHOLOGY. Study of the learner and the learning process. Includes study of behavior, discipline, development, the school environment, application of learning theories, and methods of assessment. Prerequisite: GSS 260.

491—2 to 4 INTRODUCTION TO MICRO COMPUTERS IN EDUCATION. Emphasizes the use of the micro computer for instruction. Students will become familiar with appropriate hardware (equipment) and appropriate software (programs) and their use in the educational setting. The student will be introduced to beginning programming and will do some elementary programming. May be repeated to a maximum of 4 hours so long as topics differ.

492—8 (4,4) PROGRAMMING MICRO COMPUTERS FOR COMPUTER ASSISTED INSTRUCTION. Designed to provide the student with the opportunity to develop skills in programming, design, development, style, and packaging computer assisted instruction programs for the micro computer. A. Programming Skills. B. Computer Assisted Instruction.

ELEMENTARY EDUCATION

051—4 READING SKILLS DEVELOPMENT. Designed to aid students who are deficient in basic reading ability. Major attention to comprehension and word-attack skills. To be taught on Pass/No Credit and PR bases.

200—2 INTRODUCTION TO ELEMENTARY EDUCATION. First course in the elementary education sequence. Acquaints the student with the role of the teacher and enables student to assess his or her own interests, skills, and abilities as related to that role. Satisfactory performance is required for admission to the teacher education program. Prerequisite: student must have accumulated 64 quarter hours and have a 3.4 G.P.A.

201—4 UNDERSTANDING THE PRE-PRIMARY CHILD. An introductory study of the characteristics of infants, toddlers, and young children (birth through six) with emphasis on study and observation in both informal and formal settings.

202—4 LEADERSHIP ROLES IN EARLY CHILDHOOD EDUCATION. Opportunities to explore interpersonal relationships via examination of values, beliefs, attitudes, and goals. Communications skills and role relationships: teacher vis-a-vis children, colleagues, and administrators.

314—4 ELEMENTARY SCHOOL METHODS. The fundamental principles of education, the interpretation of current educational theory and practice, the processes of teaching and learning involved in elementary education. Field experience in public schools is required. Prerequisites: 200, admission to the program, concurrent enrollment in 337, 343, and 365. Registration by permit only.

317—4 PRE-KINDERGARTEN METHODS. Instructional strategies appropriate for pre-school children, with emphasis on interrelatedness of sensorimotor, conceptual, and social development. Learning objectives in language, numbers, science, and social studies in the context of creative activities such as art, dramatics, storytelling, poetry, and music. Prerequisite: 200 or consent of instructor, 201.

337-4 READING IN THE ELEMENTARY SCHOOLS. The principles of reading, factors that condition reading, together with grade placement of aims and materials; diagnostic and remedial treatment. Field experiences in public schools are required. Prerequisites: 200, admission to the program, concurrent enrollment in 314, 343, and 365. Registration by permit only.

338—4 CORRECTIVE PROCEDURES IN READING. Techniques and materials for diagnosing and correcting reading disabilities with emphasis on meeting instructional needs of each individual in the classroom. Involvement in laboratory experiences with disabled readers. Prerequisites: completion of Field Experience I, concurrent enrollment in 415, 442, and 445. Registration by permit only.

343—4 SOCIAL STUDIES IN THE ELEMENTARY SCHOOL. Organization of materials for teaching purposes, techniques of classroom presentation, bibliographies or materials, use of audio and visual aids to instruction, and techniques for evaluating student progress. Readings, lectures, and discussions related to required teaching experience. Field experiences in public schools are required. Prerequisites: admission to the program, concurrent enrollment in 314, 337, 365. Registration by permit only.

365—4 LEARNING THEORIES AND THE ELEMENTARY SCHOOL CHILD. Principles of learning applied to the mastery of materials used in elementary school subjects. Field experiences in public schools are required. Prerequisites: 200, admission to the program, concurrent enrollment in 314, 337, and 343. Registration by permit only.

410—4 PRINCIPLES OF PRE-PRIMARY EDUCATION. Examination of research and other materials dealing with intervention for strategies for preschool children. Principles governing the stimulation of readiness for school experiences and related strategies both for preschool children and of parent involvement.

412—4 EARLY CHILDHOOD CURRICULUM. A study of the theory, design, organization, implementation, and evaluation of early childhood curriculum. Prerequisite: 317 or consent of instructor.

413—4 CHILDREN'S LITERATURE. Emphasizes types of literature, analysis of literary qualities, and selection and presentation of literature for children. Prerequisites: 200, admission to the program or graduate standing.

415—4 TEACHING MATHEMATICS IN THE ELEMENTARY SCHOOL. Items to be taught include the grade placement of content, newer instructional practices and materials of instruction, and means of evaluating achievement. Field experiences in public schools are required. Prerequisites: completion of Field Experience I, concurrent enrollment in 338, 442, and 445. Registration by permit only.

420—4 DEVELOPMENT AND TRENDS IN EARLY CHILDHOOD EDUCATION. Exploration of the history, philosophy, and current trends underlying strategies for teaching the young child. Prerequisite: 201 or 410.

421—4 CHILD, FAMILY, AND COMMUNITY RELATIONSHIPS. Designed to expose early childhood education personnel (preschool, primary) to parent involvement strategies and community agencies as they relate to the goals of early childhood education programs. Prerequisite: 201 or 410.

422—4 HEALTH AND NUTRITION FOR THE YOUNG CHILD. An understanding of nutrition principles related to the development of the young child. Included is a practicum integrating nutrition and food services with the educational curriculum. Prerequisite: 201 or 410.

433—4 SELECTED TOPICS IN ELEMENTARY EDUCATION. (a) Curriculum, (b) Language Arts, (c) Science, (d) Reading, (e) Social Studies, (f) Mathematics, (g) Early Childhood Education, (h) Elementary Organization and Supervision, (i) Open Education. Each segment carries four credit hours and each segment may be repeated to a maximum of 12 hours. Prerequisite: consent of instructor.

442—4 TEACHING SCIENCE IN THE ELEMENTARY SCHOOL. Study of content and methods of elementary school science. Field experiences in public schools are required. Prerequisites: completion of Field Experience I, concurrent enrollment in 338, 415, 445. Registration by permit only.

445—4 LANGUAGE ARTS IN THE ELEMENTARY SCHOOL. Current practices in the teaching of the language arts other than reading. Attention to evaluation of teaching materials in these areas. Field experiences in public schools are required. Prerequisites: completion of Field Experience I, concurrent enrollment in 338, 415, and 442. Registration by permit only.

450—4 to 16 EARLY CHILDHOOD STUDENT TEACHING. Not for graduate credit. Prerequisites: 16 hours of Early Childhood course work to include Ed. El. 317. Registration by permit only.

451a—16 ELEMENTARY STUDENT TEACHING. NOT FOR GRADUATE CREDIT. Prerequisite: completion of Field Experience II. Registration by permit only.

451b—4 to 16 ELEMENTARY STUDENT TEACHING: ART. Prerequisites: NOT FOR GRADUATE CREDIT. Registration by permit only.

451c—4 to 16 ELEMENTARY STUDENT TEACHING: MUSIC. Prerequisites: NOT FOR GRADUATE CREDIT. Registration by permit only.

451d—8 to 16 ELEMENTARY STUDENT TEACHING: PHYSICAL EDUCATION. Prerequisite: NOT FOR GRADUATE CREDIT. Registration by permit only.

470—4 SEX EDUCATION. (Same as Health Education 470.) An examination of individual, family, school, and community concerns and approaches to sex education. Physiological, psychosocial, and environmental factors affecting sexuality will be explored in relation to the learning experience. Open to teachers, nurses, counselors and other individuals interested in various aspects of sex education in the United States. Prerequisite: Health Education 201 or consent of instructor.

490—1 to 8 INDEPENDENT PROJECTS: INDEPENDENT READINGS AND PROJECTS IN ELEMENTARY EDUCATION. (a) Curriculum, (b) language arts, (c) science, (d) reading, (e) social studies, (f) mathematics, (g) early childhood education, (h) elementary organization and supervision, (i) individually guided education, (j) environmental education, (k) metric education. Prerequisite: consent of instructor.

FOUNDATIONS OF EDUCATION

355—4 PHILOSOPHY OF EDUCATION. The philosophical principles of education and the educational theories and agencies involved in the work of the schools.

406—4 ANTHROPOLOGY AND EDUCATION. The dynamics of enculturation as they affect formal education and the interrelations between education and other parts of the culture. Prerequisite: GSS 260.

451—4 SEXISM AND EDUCATION. An examination of policies and practices in education with regard to the issues of sexism and sex-role stereotyping, discrimination against students and school staff based upon sex; bias in curricular materials; attitudes and behavior of school personnel; sex discrimination in higher education; the role of education in promoting sex equality, goals and strategies for change.

490—4 to 12 INTERCULTURAL STUDY IN EDUCATION. Selected aspects of patterns of education examined in their social matrix. By means of field studies, conferences, lectures, or seminars, the student is helped to gain a mature understanding of selected cultures and subcultures, to evaluate critically American educational patterns in light of alternatives, and to develop fresh curricular approaches in the area of intercultural understandings through an examination of cultural patterns. May be repeated to a maximum of 12 hours credit so long as the target culture selected for study is not repeated.

HEALTH EDUCATION

201—3 HEALTHFUL LIVING. Personal and community health. Presents scientific health information as a basis for developing wholesome health attitudes and practices.

205—4 PRINCIPLES AND FOUNDATIONS OF HEALTH EDUCATION. Introduction to philosophy and history of health education as well as functions of the school health department and voluntary agency interaction in the health education program. Prerequisite for all 300-level courses and above.

250—4 MOOD MODIFIERS. An in-depth study of drug and non-drug alternatives that modify mood and behavior. The emphasis is on factors influencing use, psychological effects, legal control, and teaching strategies. Prerequisite: 201 or consent of instructor.

300—4 INTRODUCTION TO EPIDEMIOLOGY. The study of causes, prevention, and control of communicable, chronic, and

degenerative diseases in various community settings. Prerequisite: 201 or consent of instructor.

302—4 DRIVER EDUCATION AND TRAINING. Preparation of the college student for teaching driver education and training in the secondary school. Prerequisite: a valid driver's license.

313s—4 PRINCIPLES OF ACCIDENT PREVENTION. Presents an analysis of the causes of a variety of accidents including home, school, occupational, and recreational. Emphasis will be placed on safety procedures related to the reduction and/or prevention of accidents. Experiences will be provided in methods of safety education.

334s—4 FIRST AID. An American National Red Cross Advanced First Aid course with lectures, demonstrations, and practical application. The completion of the course leads to certification in both Advanced First Aid and Cardio-Pulmonary Resuscitation (CPR).

350—4 HEALTH EDUCATION IN THE ELEMENTARY SCHOOL. In-depth study of the elementary teacher's role in all phases of the school health program including appraisal and screening, referral, safety, health planning, curriculum integration and teaching strategies. Prerequisite: 201 or consent of instructor.

355—4 INTRODUCTION TO COMMUNITY HEALTH. An examination of the health educator as he/she relates to the role and function of local, state, and national health agencies in their effort to meet community health needs and solve community health problems. Prerequisite: 201 or consent of instructor.

360—4 NUTRITION, EXERCISE, AND WEIGHT CONTROL. Presents the relationship among nutritional needs, exercise, and weight control. Specific emphasis will be placed on nutrition and exercise as preventative measures with respect to obesity, diabetes, heart disease, cancer, and other health problems. An examination of teaching concerns and approaches will also be explored. Prerequisite: 201 or consent of instructor.

400—4 HEALTH APPRAISAL OF SCHOOL CHILDREN.

410—4 ENVIRONMENTAL HEALTH EDUCATION. A study of people's relationship with their environment, and the impact this relationship has on the status of one's health. This study includes individual and community roles in the promotion of environmental health. Prerequisite: 201.

415s—3 WORKSHOP IN DRIVER EDUCATION AND TRAFFIC SAFETY. Summer course designed for pre-service teachers of driver education and traffic safety. Individual and group problems are treated. Lectures by safety authorities, demonstrations, field trips, audio-visual materials, and individually supervised research in special problem areas. Prerequisite: 302 or equivalent.

443s—4 METHODS AND MATERIALS IN DRIVER EDUCATION.

445s—2 DRIVER SIMULATION. For in-service and pre-service teachers and supervisors of driver and traffic safety education. A program enabling teachers to instruct a large number of students in correct driving procedures and orient students to emergency situations too hazardous to duplicate on the highway. Prerequisite: 443s.

460—4 METHODS AND MATERIALS IN SECONDARY SCHOOL HEALTH EDUCATION.

462—1 to 4 SPECIAL TOPICS IN HEALTH EDUCATION. A seminar dealing with a relevant health issue, with topic and credit hours to be announced at time of offering. May be repeated to a maximum of four hours so long as no topic is repeated. Prerequisite: 201 or consent of instructor.

463—4 CONSUMER HEALTH. An examination of consumer health issues related to the individual, community, and society.

464—4 DEATH EDUCATION. A course for parents, teachers, counselors, nurses, clinicians, and others who are directly or indirectly involved with helping people deal with topics of death, dying, and bereavement. The class will include an exploration of one's own attitudes, professional concerns, resources, and approaches to death education. Students are encouraged to complete GIS 342 prior to enrollment. Prerequisite: 201 or consent of instructor.

465—4 CURRICULUM DEVELOPMENT IN HEALTH EDUCATION. This course includes organizational strategies, needs, assessment, critical appraisal of current curriculum approaches, utilization of resources, objectives, content, implementation, and evaluation techniques in a simulated school setting. Prerequisites: 201, 205 and junior status; or consent of instructor.

470—4 SEX EDUCATION. (See Elementary Education 470.)

471—4 THE SCHOOL HEALTH PROGRAM. An in-depth study of the principles of administration and organization of the three phases of the total school health program. This includes health services, environment, and the health instruction program with regard to the role assumed by the health educator, utilization of resources, and promotion of health in students, teachers and the community. Prerequisites: 201, 205 and junior status; or consent of instructor.

480s—4 WORKSHOP IN SAFETY EDUCATION. Summer course for in-service teachers, nurses, administrators, advanced students, and others interested in safety education as it applies to the public school and the community. Individual problems, lectures, demonstrations, films, field trips, and individual group study in special areas of interest. Prerequisite: 313 or 323 or consent of instructor.

485s—4 CURRICULUM DEVELOPMENT IN DRIVER EDUCATION. The structure, content and approaches of curriculum development as applied to traffic safety based upon the

Highway Transportation System operation task analysis, with appropriate learning activities. Prerequisite: 302.

INSTRUCTIONAL TECHNOLOGY

401—4 INSTRUCTIONAL MEDIA SERVICES. An overview of instructional media services in relation to the educational objectives of elementary and secondary schools and community college programs: organization, supervision, finance, housing, equipment, standards and evaluation.

402—4 MEDIA SELECTION. Principles for selection and evaluation of print and nonprint media; use of standard selection aids, and review, writing of annotations; policies governing the building and maintenance of a collection.

403—4 INSTRUCTIONAL MEDIA FOR CHILDREN AND YOUNG ADULTS. Study of the aids, methods, and criteria for the selection and use of books and other instructional materials for students in grades K-12. Prerequisite: 402 or consent of instructor.

407—4 BASIC REFERENCE SOURCES. Evaluation, selection, and use of reference sources for elementary and secondary school libraries. Principles and methods of reference service.

408—4 INTRODUCTION TO CATALOGING AND CLASSIFICATION. Underlying principles, existing theories, practical applications and experience in the cataloging and classification of book type materials.

417—4 AUDIO-VISUAL METHODS IN EDUCATION. Selection and utilization of instructional materials in the learning environment, elementary through adult levels. Audio and visual materials and procedures are emphasized with some attention given to bibliographies and reference books for teachers.

430—2 BASIC AUDIO-VISUAL MAINTENANCE TECHNIQUES. Basic instruction in simple maintenance techniques required to keep audio-visual equipment operating in instructional situations. Useful in media centers without services of an audio-visual technician. Laboratory type course with short lectures.

440—2 PHOTOGRAPHY FOR TEACHERS. Techniques of picture-taking and the preparation of color slides of community resources for use in classroom instruction and for school public relations.

445—4 PREPARATION OF TEACHER-MADE MATERIALS. Design and development of instructional materials for communication including opaque materials, overhead projectuals, mounted visuals, display materials, lettering materials and other graphics. Laboratory fee. Prerequisite: 417 or consent of instructor.

447—2 AUDIO PROCESSES IN CLASSROOM LEARNING. Sound theory, sound control, sound reproductions, and listening skill development in the learning process. Theory and practice are handled together. Prerequisite: 417 or consent of instructor.

450—4 INSTRUCTIONAL PHOTOGRAPHIC PROCESSES. Designed for professional educators involved in the production and use of photographic materials. Emphasis on photographic processes and their application to the development of instructional materials. Prerequisite: senior standing in education.

458—4 THE MEDIUM OF THE MOTION PICTURE. A study of the full range of expression by motion pictures including the documentary, theatrical, educational, experimental, and industrial films. Representative films are screened.

460—4 TELEVISION IN THE CLASSROOM. Instructional television programming and its value to the student and the teacher in the learning environment. Instructional sequences are produced with video equipment.

490—1 to 8 SEMINAR: SELECTED TOPICS IN INSTRUCTIONAL TECHNOLOGY. Varied content. Topics selected from instructional technology field which are considered innovative and of immediate concern to existing educational needs. May be repeated so long as no topic repeats itself. Prerequisite: senior standing.

PHYSICAL EDUCATION

All courses are open to both men and women. Courses numbered 102 through 199 may be taken on a Pass/Fail option or taken to receive a letter grade.

102—1 PHYSICAL FITNESS.

104—1 (1 per activity) INDIVIDUAL AND TEAM ACTIVITY. (c) Basketball, (j) Softball, (n) Cross Country, (r) Racquetball, (u) Wrestling, (x) Handball.

112—1 BASIC BODY MOVEMENT.

115—3 (1,1,1) RESTRICTED PHYSICAL EDUCATION.

116—(1 per activity) SWIMMING. (a) Beginning Swimming, (b) Intermediate Swimming.

116d—1 LIFE SAVING AND WATER SAFETY. Theory and practice of techniques involved in water safety. Personal safety and rescue methods for use in, on, and about the water. Leads to American Red Cross Senior Life Saving Certificate. Prerequisites: proficiency test, preliminary swimming.

117—(1 per activity) DANCE. (a) Square, (b) Folk, (c) Social, (d) Beginning Contemporary, (g) Modern Jazz Dance.

118—(1 per activity) INDIVIDUAL AND TEAM ACTIVITY. (a) Archery, (b) Badminton, (d) Bowling, (e) Golf, (f) Billiards, (h) Tennis, (i) Volleyball, (l) Sailing, (m) Fencing, (r) Stunts and Tumbling, (s) Gymnastics. (w) Track and Field, (z) Recreational Sports.

300—10 (2,2,2,2,2) TECHNIQUES FOR MEN AND WOMEN. (b) Tumbling and Gymnastics, (f) Archery and Flag Football, (g) Fitness and Track and Field, (h) Basketball and Tennis, (i) Volleyball and Golf. Prerequisite: declared major in physical education or consent of instructor.

301—8 (2,2,2,2) TECHNIQUES FOR MEN AND WOMEN. (a) Soccer and Field Hockey. (g) Modern Dance. (h) Softball and Wrestling. (i) Bowling and Field Sports. Prerequisite: declared major in physical education or consent of instructor.

302—8 (2,2,2,2) TECHNIQUES FOR MEN AND WOMEN. (a) Basic Rhythms, Folk Dancing and Square Dancing. (e) Beginning and Intermediate Swimming. (f) Advanced Swimming and Senior Life Saving. (g) Fencing and Badminton. Prerequisite: primary or secondary concentration in physical education.

303—8 (4,4) HOMOKINETICS. (a) Structural and functional basis of human performance. (b) Mechanics applied to physical performance; analysis of selected motor activities; application of physical principles to specific instructional problems. Prerequisite: (a) course in general biology; (b) 303a, four activity courses.

304a—4 BASIC CONCEPTS OF PHYSICAL EDUCATION. Provides a background for the understanding of the history, principles, and scientific bases for physical education. Designed to orient the beginning student of physical education about the profession. Prerequisite: concurrent enrollment with 304b.

304b—2 BASIC CONCEPTS OF MOVEMENT. An introductory course designed to expose the student to a wide variety of fundamental stability, locomotive and manipulative movement patterns and their relationship to movement skills and abilities within the physical education curriculum. Prerequisite: concurrent enrollment with 304a.

305—4 PHYSICAL EDUCATION FOR THE ATYPICAL STUDENT. The recognition of physical deviations and the provisions of special or modified physical education or recreational activities for such students. Prerequisite: 303a.

323—3 (1,1,1) OFFICIATING TECHNIQUES. Study of rules and their interpretation; requirements for ratings given by the United States Field Hockey Association and the National Association of Girls' and Women's Sports. Officiating practice required. (a) Fall: field hockey and soccer. (b) Winter: basketball. (c) Spring: volleyball and softball.

350—4 METHODS AND MATERIALS FOR TEACHING PHYSICAL EDUCATION ACTIVITIES IN THE ELEMENTARY SCHOOL. The organization and conduct of the program, program planning, evaluation of materials, observation and practice in creative rhythms, singing games, folk dancing, and games of low organization. (Required for elementary education.)

382—4 METHODS AND MATERIALS FOR TEACHING SECONDARY PHYSICAL EDUCATION. Conduct of programs in physical education for grades 7-12. Emphasis on teaching methods and materials for the instructional program. Attention to routine procedures and common problems related to teaching. Prerequisite: six 300-level activity courses.

383—3 OUTDOOR AND INDOOR GROUP GAMES. Prepares student to develop a program of outdoor and indoor group games for the elementary level. Emphasis on techniques, fundamentals, and strategy. Stresses the use of lead-up games in the program.

384—2 RHYTHMICAL ACTIVITIES. Deals with all phases of the rhythmical program, teaching techniques, analysis of problems, evaluation techniques. Includes experience in working with children. Prerequisite: 302a or equivalent.

387—2 DEVELOPMENTAL SKILLS. Stresses basic developmental skills that should be included in physical education programs for the elementary school. Emphasis upon progression from gross skills to refined skills. Prerequisite: consent of instructor.

388—2 SELF-TESTING ACTIVITIES. Prepares the student to develop programs of self testing skills. Stresses knowledge of problems, techniques, materials, safety factors, and evaluation procedures. Includes experience with children. Prerequisite: 118s or 300b.

389—2 to 6 AFFILIATION IN PHYSICAL EDUCATION. Observing and assisting instructor in planning, scheduling, and conducting a physical education program by working in area schools. May be repeated for maximum of 6 hours credit. Prerequisite: consent of instructor.

390—2 EVALUATION TECHNIQUES IN THE ELEMENTARY SCHOOL PHYSICAL EDUCATION PROGRAM. A study of the methods and concepts in measuring a child's growth and development and physical fitness index with emphasis on analyzing various skill tests and their application to the child. Prerequisite: 350.

400—16 (2,2,2,2,2,2,2,2) COACHING. Advanced theory and practice relating to skills, strategies, conditioning, organization, and administration of the principles underlying participation in interscholastic (a) soccer, (b) baseball, (c) basketball, (d) wrestling, (e) cross country, (f) track and field, (g) golf, (h) tennis. Prerequisite: related activity course.

402—4 ORGANIZATION AND ADMINISTRATION OF INTRAMURAL AND EXTRAMURAL ACTIVITIES. Planning intramural programs of sports. Planning and coordinating extramural activities commonly associated with physical education.

404—4 WORKSHOP IN DANCE FOR IN-SERVICE TEACHERS. History of dance, values of dance, interpretation of music for dance, teaching techniques and facilities, and fundamental dance movements leading to knowledge and command of dance skills.

410—4 ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION PROGRAMS. The nature of the administrative process; analysis of resources in program planning; policies and procedures for implementation of programs; line and staff relationships; budget and finance; facility use; legal considerations. Prerequisite: senior standing or consent of instructor.

420—4 PHYSIOLOGICAL EFFECTS OF MOTOR ACTIVITY. The general physiological effects of motor activity upon the structure and function of body organs; specific effects of exercise on the muscular system. Prerequisite: 303a or equivalent.

425—4 CARE AND PREVENTION OF ATHLETIC INJURIES. An introduction to the various athletic injuries. Considerable attention to those injuries which commonly occur to athletes. Prerequisite: 303a or equivalent.

427—4 PHYSICAL EDUCATION AND RECREATION FOR THE HANDICAPPED. (Same as Special Education 427.) Characteristics of handicapped children as they affect the feasibility of physical education and recreation activities. Values of specific activities for certain types of children and methods and materials for teaching physical education and recreation skills. Emphasis on activities suitable to classroom, home, and institution. Prerequisite: Counselor Education 305.

470—4 MEASUREMENT AND EVALUATION IN PHYSICAL EDUCATION. Test and norm construction use of tests as diagnostic, prognostic, and instructional tools, evaluation of curricula, courses, and methods, analysis of test results; survey of common standardized tests in physical education and related aspects of human performance adaptation of tests to meet specific needs.

473—4 THEORY OF COACHING. Principles and theory of coaching interscholastic athletics. Emphasis on psychology of coaching, organization and selection of teams, training techniques and coaching methods.

476—2 to 4 TEACHING ATHLETIC SKILLS. Modern techniques of teaching skills, conditioning, and strategies in activities such as soccer, tennis, and track and field; for prospective Physical Educators and coaches. May be repeated as desired so long as no activity is duplicated. The maximum hours credited to degree requirements may not exceed the number of hours specified by the student's program of study.

499—2 to 4 INDIVIDUAL RESEARCH. The selection, investigation, and writing of a research paper under the supervision of instructor.

PSYCHOLOGY

300a—4 FOUNDATIONS OF PSYCHOLOGY. An in-depth survey of the following content areas: history, psychological methods and techniques, biological foundations of behavior, personality, psychopathology, development, social psychology, motivation and learning.

300b—4 INTRODUCTION TO STATISTICS. Basic methods for organizing and describing psychological data are presented along with correlation concepts. An introduction to hypothesis testing and statistical inference. Three lecture and two laboratory hours per week. Prerequisite: 300a for psychology majors, consent of instructor for non-majors.

300c—5 METHODS OF PSYCHOLOGICAL ENQUIRY. A survey of laboratory, field, and social techniques that psychologists use to study behavior. Four lecture, two laboratory hours per week. Prerequisites: 300a, 300b.

301—4 CHILD PSYCHOLOGY. A study of the biological and psychological development of the child from birth through puberty, and of relevant research methods and results. Prerequisite: 300a or GSS 260.

303—4 ADOLESCENT PSYCHOLOGY. Examines the physical and psychological development of the adolescent and the relevance of childhood development to adolescent problems. Prerequisite: 300a or GSS 260.

304—4 PSYCHOLOGY OF MATURITY AND OLD AGE. A consideration of psychological factors in later maturity and old age and their concomitant problems, both individual and societal. Prerequisite: 300a or GSS 260.

305—4 INTRODUCTION TO PERSONALITY DYNAMICS. Exploration of human motivations, personality patterns, and ways of coping with the stresses of modern life. Prerequisite: 300a or GSS 260.

307—4 SOCIAL PSYCHOLOGY. Introduction to the study of the individual's interaction with his social environment. Considers problems of social learning, attitude formation, communication, social influence processes, and group behavior. Prerequisite: 300a or GSS 260.

308—4 SOCIAL PSYCHOLOGY OF NONVERBAL BEHAVIOR. A systematic introduction to the study of nonverbal behavior in generalized settings. Contributions from anthropology, psychology, speech, and other areas are integrated to provide an opportunity for increased sensitivity to student's own and other's nonverbal behavior. Prerequisite: 300a or GSS 260.

311—4 EXPERIMENTAL PSYCHOLOGY: LEARNING. Investigates the processes governing behavioral change. Emphasizes experimental studies of conditioning, memory, and forgetting. Laboratory work includes the design and conduct of experiments with humans and animals. Lecture and laboratory. Prerequisite: 300a or consent of instructor; 300c recommended.

312—4 EXPERIMENTAL PSYCHOLOGY: PERCEPTION. Investigates the variables influencing an organism's stimulation by his environment. The structure and operation of the sense

organs as well as complex perceptual phenomena are examined in lectures and laboratory. Prerequisites: 300a, 300b, 300c.

313—4 EXPERIMENTAL PSYCHOLOGY: MOTIVATION. An examination of both biological and social variables influencing the activation, direction, and maintainance of behavior. Laboratory work examines the effects of motivation upon behavior. Prerequisites: 300a, 300b, 300c.

314—4 EXPERIMENTAL PSYCHOLOGY: COMPARATIVE AND PHYSIOLOGICAL. An examination of the physiological and phylogenic variables affecting behavior. The laboratory involves work with different types of organisms emphasizing physiological concomitants of behavior. Lecture and laboratory. Prerequisite: 300a or consent of instructor.

320—4 INDUSTRIAL PSYCHOLOGY. A study of functions of psychology as a science and as a profession in contemporary business and industry. Prerequisite: 300a or GSS 260.

404—4 CONTEMPORARY THEORIES OF LEARNING, PERCEPTION, AND MOTIVATION. An examination of different behavior theories in the areas of learning, motivation, and perception. Theories that are of contemporary significance and are comprehensive in nature are emphasized. Prerequisite: One of 311, 312, 313, or consent of instructor.

405—4 PSYCHOLOGY OF WOMEN. The psychological and cultural history of women, sexuality of women, various relevant psychological theories of socialization, psychopathology in women and related current issues. Laboratory includes emphasis on techniques for awareness and personal change. Prerequisite: 300a or GSS 260 and advanced standing.

409—4 HISTORY AND SYSTEMS. Study of the important antecedents of contemporary scientific psychology. Considers issues, conceptual developments, and research advances, and presents the major schools and systems. Prerequisite: 300a or GSS 260.

410—4 PROFESSIONAL ISSUES IN TEACHING PSYCHOLOGY. A survey of professional trends in the teaching of psychology at secondary, college, and graduate levels. Compares different models for teaching psychology and acquaints students with library, laboratory, and testing resources. Prerequisite: advanced standing.

414—4 ALTERED STATES OF CONSCIOUSNESS. Use of known principles of sensation, perception, and neuropsychology to explain phenomena of normal and altered states of consciousness; e.g., meditation, hypnosis, and biofeedback. Class discussion supplemented by films and demonstrations. Prerequisite: 300a or GSS 260.

415—4 ENVIRONMENTAL PSYCHOLOGY. (Same as Environmental Studies 415.) Surveys man-environment relationships from a psychological perspective. Selected topics such as environmental perception, attitudes, spatial behavior, stress, and habitat needs are examined. Some attention to psychological methods of research and problem solving. Prerequisite: 300a or consent of instructor.

420—4 BEHAVIOR MODIFICATION. An examination of the learning principles, evaluation methods and techniques of managing and modifying human behavior. The learning principles consist largely of knowledge based on the scientific inquiry of operant and respondant conditioning. Prerequisite: 300a or GSS 260.

421—4 PSYCHOLOGICAL TESTS AND MEASUREMENTS. Principles of psychological measurement, including errors of measurement, techniques of estimating reliability and validity, techniques of test construction, and problems in assessment and prediction. The laboratory includes the use of selected instruments. Lecture and laboratory. Prerequisite: 300b.

430—4 APPLIED BEHAVIOR ANALYSIS. Development of skills of applying behavior management principles to human behavior. Principles such as shaping, reinforcement, stimulus control and punishment developed in laboratory and applied settings. Prerequisite: 420.

431—4 PSYCHOPATHOLOGY. Classification, description, etiology and treatment of the disorders of personality organization and behavioral integration. Observations in a state mental hospital setting. Prerequisite: 305 or consent of instructor.

432—4 MENTAL HYGIENE. An integration of psychological knowledge and principles concerning factors and conditions affecting the individual which tend to facilitate or determine health.

437—4 THE PSYCHOLOGICAL INTERVIEW. Development of basic skills and techniques of interviewing. Consideration of various types and theories of interview and interview data interpretation and evaluation. Prerequisite: 305 or 307.

440—4 THEORIES OF PERSONALITY. A review and critical evaluation of major personality theories and supporting evidence. Prerequisite: 305 or consent of instructor.

451—4 ADVANCED CHILD PSYCHOLOGY. An examination of concepts, methods, and problems of human development with consideration of both its psychological and psychosocial aspects. Prerequisite: 301 or 303 or graduate standing.

461—4 ADVANCED SOCIAL PSYCHOLOGY. Examines current areas of interest in the study of social behavior: language, communication, social influence, attitude change, interpersonal perception, etc. Emphasis on the individual in the social context. Prerequisite: 307 or consent of instructor.

465—4 GROUP DYNAMICS AND INDIVIDUAL BEHAVIOR. Examination of research and theory in the area of small-group interaction. Examines such topics as group structure and function, group problem-solving, leadership, etc. Prerequisite: 305 or graduate standing.

468—4 PSYCHOLOGY OF HUMAN SEXUALITY. Explores the psychological aspects of human sexuality. Topics include crosscultural sexuality, sexuality in childhood and adolescence, adult sexuality, and roles, typical sexual behavior, special forms of sexual expression, and sexual dysfunction, as well as other areas. Prerequisite: consent of instructor.

473—4 PERSONNEL PSYCHOLOGY. Psychological methods in selection, placement, evaluation, and criterion development. Emphasis on principles and techniques with some examples of application to decision-making in business and industry. Prerequisite: 320 or consent of instructor.

474—4 ORGANIZATIONAL PSYCHOLOGY. Organizational and individual interaction influence on behavior and how these affect job satisfaction, motivation, performance, and the psychological climate in the work setting. Prerequisite: 320 or consent of instructor.

479—4 PSYCHOLOGY OF INDUSTRIAL CONFLICT. Consideration of social and psychological factors underlying controversies between workers and management. Prerequisite: 320 or consent of instructor.

487—4 PSYCHOLOGY OF AGING. An in-depth examination of psychological factors involved in adjustment to the aging process. Special problems such as adjustment to retirement, leisure time, widowhood, aloneness and death and dying, as well as evaluation techniques and general principles of treatment and prevention. Prerequisites: 304 or graduate standing.

488—4 COMPUTER SOFTWARE FOR PSYCHOLOGICAL RESEARCH. Introduces programs for psychological data file management and statistical computation. Emphasizes the selection of appropriate analyses and reports for psychological interpretation. Prerequisite: 300b or equivalent.

490—1 to 8 INDEPENDENT PROJECTS. Independent readings, projects or field experiences in psychology. May be repeated for credit. Only 12 hours may be applied toward a major or 4 hours to a minor in psychology. Prerequisite: consent of instructor and chairperson.

495—1 to 4 SEMINAR: SELECTED TOPICS. Varied content. To be offered from time to time as need exists and as faculty interest and time permit. May be repeated for a total of 16 hours so long as no topic is repeated. Prerequisite: consent of instructor.

497—8 (1-4) HONORS SEMINAR IN PSYCHOLOGY. A seminar in subject matter beyond the areas covered regularly by the standard curriculum. Subject matter may vary with each offering. May be repeated for up to 8 hours credit so long as no topic is repeated. NOT FOR GRADUATE CREDIT. Prerequisite: admission to the Psychology Honors Program.

498—0 HONORS COORDINATING SEMINAR. Coordinating seminar for the Psychology Honors Program. Students in the Honors Program develop and report on their individual and group involvement in honors level work. The course carries no credit. Prerequisite: admission to the Psychology Honors Program.

499—2 to 6 PSYCHOLOGY SENIOR HONORS PAPER. Completion of an independent project during the student's senior year, under the supervision of a committee of three faculty members. At least the chairman of the committee must be a member of the faculty of the Psychology Department. NOT FOR GRADUATE CREDIT. Prerequisites: senior standing, admission to the Psychology Honors Program.

RECREATION

100—4 INTRODUCTION TO RECREATION. The philosophy and history of recreation. Emphasis on principles and standards conducive to sound program development.

200—4 PROGRAMS IN RECREATION. An introduction to the various recreational media. Considerable attention to those programs commonly found in a leisure-oriented society. Prerequisite: 100.

312—2 to 6 PLAYGROUND LEADERSHIP. Field experiences. Prerequisite: consent of instructor.

348—3 RECREATION LEADERSHIP. Leadership functions and skills related to recreational settings.

349—2 CAMPING EDUCATION. Designed to give the potential camp counselor an understanding of the camp, its physical set-up, equipment, and necessary routines; its personnel, purpose, traditions, and possibilities.

365—3 ORGANIZATION AND ADMINISTRATION OF COMMUNITY RECREATION. The social, economic, and governmental structure of the community; establishing the community recreation program; problems of facilities, equipment, finance, promotion; selecting and supervising personnel; integration with associated programs. Prerequisite: consent of instructor.

389—4 to 6 AFFILIATION IN RECREATION. A field experience for recreation majors to observe and assist in an approved recreational program in the area under professional supervision. Prerequisite: consent of instructor.

390—4 RECREATIONAL PLANNING. Analysis of planning principles and standards for areas and facilities associated with recreation programs. Attention to general building features as well as special requirements. Prerequisite: 200.

400—16 INTERNSHIP IN RECREATION. Participation as full-time intern for one quarter in one or more recreational agencies. Under University and agency supervision, the intern engages in planning, administering, and implementing recreational activities. Not offered for graduate credit. Prerequisite: 390.

410—4 PROBLEMS IN RECREATION. Analysis of specific contemporary factors relating to relevant economic, political, sociological, and psychological problems. Prerequisite: 390.

420—3 PARKS AND RECREATION LAW. Interpretation and application of local, state, and federal statutes pertaining to recreation programs operated by public and quasi-public agencies. Emphasis on personal negligence, liability, and governmental immunity. Prerequisite: 390.

SECONDARY EDUCATION

215—4 INTRODUCTION TO SECONDARY EDUCATION. Through three types of settings—field experiences and on campus and off campus seminars—students are given the opportunity to explore, experience, and study teaching as a profession. Required of all students before they may be considered for admission into secondary teacher education.

315—5 HIGH SCHOOL METHODS. Study and discussion in various types of procedures used for effective classroom teaching. The problem approach and unit method are stressed. Participation in microteaching laboratory. Prerequisites: Counselor Education 305, Foundations of Education 355.

352—4 to 16 SECONDARY STUDENT TEACHING. Practice of teaching in junior and senior high school subjects in the student teacher's area of concentration. The application of theory to practice as it applies to the teacher's responsibility in the secondary education classroom and the school as a whole. These experiences to be arranged under the direction of a University supervisor in cooperation with a qualified and experienced public school teacher.

401—33 (8,9,16) SECONDARY EDUCATION TEACHER TRAINING SYSTEM. The preparation of secondary school teachers through a systems approach with emphasis on field experiences conducted in Teacher Learning Centers. Alternative learning experiences provided according to needs of students and profession. Must be taken in sequence or consent of department chairman. Not for graduate credit. Prerequisites: 215, admission into secondary education.

407—4 THE MIDDLE AND JUNIOR HIGH SCHOOL. Designed to help prospective middle and junior high school teachers understand the background and present status of these schools. The development, population, curriculum purposes, and methods of the schools with a major emphasis on curriculum.

440—4 TEACHING READING IN THE SECONDARY SCHOOL. A foundation course in how to teach reading in junior and senior high school; developmental and corrective reading programs, appraisal of reading abilities; methods and materials of instruction. Prerequisite: 315.

481—4 DRUG USE AND ABUSE. Relevant background information for teachers, curriculum development specialists, administrators, and others who are interested in the problems in drug use and abuse as they relate to students at the secondary school level and above.

495—1 to 8 SELECTED TOPICS. Varied content. To be offered from time to time as need exists and as faculty interest and time permit. May be repeated until a maximum of 16 hours have been earned provided no topic repeats itself. Prerequisite: consent of instructor.

SPECIAL EDUCATION

400—4 THE EXCEPTIONAL CHILD. An introductory overview of the physical, emotional, and social traits of all types of exceptional children. Effects of handicaps in learning situations and methods of differentiation, as well as techniques for rehabilitation. Not for graduate credit.

410a—4 PROBLEMS AND CHARACTERISTICS OF BEHAVIOR DISORDERED CHILDREN. A review and study of the concepts of screening, assessment, placement, programming, and behavior management as they relate to the education of children with behavior disorders. Emphasis on increasing the student's knowledge concerning behaviorally disordered children. Prerequisite: 400 or concurrent enrollment.

410b—4 PROBLEMS AND CHARACTERISTICS OF THE MENTALLY RETARDED CHILD. Educationally significant characteristics including cognitive, emotional, and sociological considerations. Problems of definition, screening, diagnosis, classification systems, and classroom management. Prerequisite: 400 or concurrent enrollment.

410c—4 PROBLEMS AND CHARACTERISTICS OF THE GIFTED CHILD. Designed to help teachers in the identification of, and programming for, gifted talented children.

410f—4 PROBLEMS AND CHARACTERISTICS OF THE SOCIALLY MALADJUSTED CHILD. Definition and characteristics of the socially maladjusted, as related to problems of identification and classroom practice. A developmental approach to causes and to recommended practice at preschool, elementary, and secondary levels. Prerequisite: 400 or concurrent enrollment.

410g—4 PROBLEMS AND CHARACTERISTICS OF THE LEARNING DISABLED CHILD. Study of the child with a wide discrepancy between ability and achievement, accompanied by serious educational maladjustment. Emphasis on definition, identification, diagnosis, individualized remedial programs and placement. Prerequisite: 400 or concurrent enrollment.

411—4 ASSESSMENT OF EXCEPTIONAL CHILDREN. Assessment techniques, theories, methods, and instruments used with exceptional children; introduction to the use and application of these techniques to case study practices. Prerequisite: 410g.

413a—4 DIRECTED OBSERVATION OF EMOTIONALLY DISTURBED CHILDREN. Student observation and participation in group and individual work with mentally retarded children. Often taken concurrently with 410b. Prerequisite: consent of department chairperson.

420a—4 METHODS AND MATERIALS FOR CHILDREN WITH LEARNING AND/OR BEHAVIORAL PROBLEMS. Methods and materials needed in teaching children with learning and/or behavioral problems in special education programs. Prerequisite: 411.

420b—4 METHODS AND MATERIALS IN THE EDUCATION OF THE EDUCABLE MENTALLY HANDICAPPED. Methods and materials needed in teaching educable mentally handicapped children. Prerequisite: 411.

420c—4 METHODS AND MATERIALS IN THE EDUCATION OF THE GIFTED. Methods and materials needed in teaching gifted children.

427—4 PHYSICAL EDUCATION AND RECREATION FOR THE HANDICAPPED. (See Physical Education 427.)

430—4 BEHAVIOR MANAGEMENT IN SPECIAL EDUCATION. The application of biophysical, psychodynamic, ecological, and learning theories to the management of the behavior of exceptional children. Prerequisite: 400.

440—4 PRESCHOOL EDUCATION FOR EXCEPTIONAL CHILDREN. A survey of preschool programs for the exceptional child. Investigation of theories of child development as related to special education. Observation experience with preschool exceptional children. Prerequisite: any Special Education 410.

441—4 PRESCRIPTIVE TEACHING—PRESCHOOL EXCEPTIONAL CHILDREN. The use of formal and informal instruments in the assessment of academic, cognitive, and perceptual-motor development of preschool exceptional children. Emphasis on diagnosis and remediation. Participation experiences with preschool exceptional children and parent involvement. Prerequisite: 440.

470—4 SECONDARY SCHOOL PROGRAMS FOR EXCEPTIONAL CHILDREN. Organizational, administrative, and curricular aspects of programs for exceptional children at the secondary level. Emphasizes adjustments needed because of intellectual, behavioral, physical, or learning disabilities. Stresses work-study programs. Prerequisite: 400.

480r-4 INTRODUCTION TO REHABILITATION. A survey of the philosophy, procedures, and practices underlying the rehabilitation movement, including the history and legislation that have contributed to its rapid development.

481—4 SEMINAR IN THE INSTRUCTION OF EXCEPTIONAL CHILDREN AND ADOLESCENTS. A concluding and synthesizing seminar for students seeking to be classroom and/or resource room teachers of exceptional children. Focus is on the applied aspects of assessment, prescriptive teaching, teaching evaluation, individual and group behavior management techniques, instructional methodologies, and instructional materials. Prerequisite: concurrent enrollment in 353.

496—1 to 8 READINGS AND INDEPENDENT STUDY IN SPECIAL EDUCATION. Study of highly specific problem area in the education of exceptional children. Open only to selected seniors and graduate students. Topic and conditions of study must be approved via contract. Hours may be repeated, with a maximum of 8 hours applicable to a degree. Prerequisite: consent of instructor.

498—8 (4,4) SEMINAR: SELECTED TOPICS IN SPECIAL EDUCATION. Special education concepts, teaching strategies, and current concerns to various educational personnel. Course may be repeated, with a maximum of 8 hours applicable to a degree so long as no topic is repeated. Prerequisite: consent of instructor.

499—32 (16, 8, 8) SPECIAL EDUCATION STUDENT TEACHING. The practice of teaching, under the immediate supervision of critic teacher and the general supervision of a University instructor. Involves lesson preparation and planning of instruction. Students may take up to 32 hours of student teaching. This first student teaching experience must be 16 quarter hours. Second and third student teachings are for 8 hours each. NOT FOR GRADUATE CREDIT.

SCHOOL OF ENGINEERING

CONSTRUCTION

101—1 INTRODUCTION TO CONSTRUCTION. An introduction to the construction industry, its history and its role in today's society.

102—4 GRAPHICAL COMPUTER TECHNIQUES FOR CONSTRUCTION. An introduction to graphical and computer techniques specifically applied to the construction industry. Introduction to computer programming and use of the computer in planning, scheduling and data processing. Graphical techniques used for resource scheduling, records and project productivity. Prerequisites: 101, Engineering 101.

201—4 CONSTRUCTION MATERIALS AND METHODS I. An introduction to the primary types of materials used in construction including asphalt, plastics, portland cement, steel, wood and glass. Examination of their molecular structure and factors affecting strength. Laboratory included. Prerequisite: Chemistry 110a.

202—4 CONSTRUCTION MATERIALS AND METHODS II. The methods and equipment for handling and storage of materials. Construction procedures used with these materials. Prerequisite: 201.

264—4 CONSTRUCTION LAYOUT AND MEASUREMENTS. Surveying techniques for construction ground control and facility layout. Both vertical and horizontal controls. Prerequisite: Engineering 263.

301—4 SOILS. Introduction to the geological distribution, physical properties and behavior of soils. Classification and testing of soils. Laboratory included. Prerequisite: Engineering 270 or concurrent enrollment.

302—4 WATER RESOURCES. Introduction to basic hydraulic and hydrology concepts. Determination of flow and drainage areas. Effects of water on construction procedures. Utilization of maps and air photos in hydrology studies. Laboratory included. Prerequisites: 102, 301.

321—3 ELECTRICAL SYSTEMS. Use of basic electrical theory for 60 cycle AC systems. Electrical systems and distribution for facilities. Electrical systems and distribution during construction including safety considerations, wiring and energy consumption. Prerequisite: Physics 211.

331—3 HVAC SYSTEMS. Introduction to heating, air-conditioning and ventilation systems. Requirements during construction as well as for the completed facility. Prerequisite: Physics 211.

332—3 MECHANICAL SYSTEMS. Introduction to mechanical systems and distribution. Requirements during construction as well as for the completed facility. Prerequisite: Physics 211.

341—4 PLANS AND SPECIFICATIONS. Reading and interpreting plans and specifications. Standard construction specifications such as ASTM, AISC, and ACI are used. Introduction to take-off methods for use in estimating. Laboratory included. Prerequisites: 202, 321 and 332 or concurrent enrollment.

351—4 INTRODUCTION TO CONCRETE AND TIMBER STRUCTURES. Elementary analysis of statically determinate structures. Design considerations for structural steel elements including familiarization with various design codes. Prerequisite: Engineering 270.

352—4 INTRODUCTION TO STEEL STRUCTURES. Elementary analysis of statically determinate structures. Design considerations for structural steel elements including familiarization with various design codes. Prerequisite: Engineering 270.

375—2 JUNIOR SEMINAR. Pre-project management and project management in the construction industry. Guest lecturers from the construction industry and allied fields. Prerequisite: junior standing.

395—2 to 8 READINGS IN CONSTRUCTION. Supervised reading in selected construction subjects. Prerequisites: junior or senior standing and consent of Department Chairperson.

403—4 CONSTRUCTION OPERATIONS. Planning and scheduling construction projects including resource and manpower allocation. Introduction and use of CPM and PERT methods. Progress reports and records. Prerequisites: 102, 341.

411—4 CONSTRUCTION CONTRACTS. Legal aspects of contracts and bidding. Types of construction contracts and documents including bonds. Safety during construction phase. Local, state, and federal regulations including OSHA rules and regulations. Prerequisites: Economics 310, Management 342 or concurrent enrollment.

441—4 SITE INVESTIGATION. Determination of access routes, haul roads and site topography. Sources of utility information, use of existing maps and air photos in site evaluation. Requirements for on-site support facilities including storage, electric, water and sanitary requirements. Prerequisites: 302, 341.

451—4 ESTIMATING AND BIDDING. Methods and procedures for estimating and bidding construction projects. Use of take-off quantities, productivity, and material costs in estimating and bidding. Prerequisites: 341, 403, Economics 310, Finance 320 or concurrent enrollment.

461—4 MATERIALS SAMPLING AND TESTING. Procedures and methods used to sample and test materials including standard methods such as ASTM and ACI standards. Statistical procedures. Laboratory included. Prerequisite: 202.

462—4 CONSTRUCTION EQUIPMENT. The types of construction equipment with methods for selection and evaluation of performance including basic principles used to determine size and energy requirements. Prerequisites: 403, Engineering 270.

463—4 CONCRETE PROPERTIES. Relations between microstructure and microproperties, mechanism of fracture, shrinkage and creep, new types of concrete, effects of environment and mixtures will be discussed. Individual research project is required. NOT FOR GRADUATE CREDIT. Prerequisite: 351 or consent of instructor.

464—4 CONSTRUCTION MONITORING AND CONTROL. Job inspection, quality control, time and motion studies, progress reports, records and employee relations. Prerequisites: 341, 403, Economics 310.

475—3 SENIOR SEMINAR. Record keeping, quality control, construction contracts, permits and safety. Guest lecturers from the construction industry and allied fields. NOT FOR GRADUATE CREDIT. Prerequisite: senior standing.

ENGINEERING

101a,b—5 (2,3) ENGINEERING GRAPHICS. (a) Principles of Graphic Communications. Sketching for shape description, pictorial projection, multiviews, various types of sectional views, auxiliary views, geometric construction. The student

must supply his or her own drafting instruments. (b) Shop processes, dimensioning, axonometric drawing, tolerances, fasteners, and the complete detail and assembly drawing of a jig or fixture for an assigned problem.

110—0 FRESHMAN SEMINAR. Introduction to engineering; description of major areas of engineering activity; discussion of available curricula at this University; procedures of the University and the School of Engineering. Team-taught by members of School of Engineering with invited lecturers from industry and other departments. Pass-No Credit grading only.

200—4 INTRODUCTION TO ELECTRICAL CIRCUITS. Steady state dc and ac circuit analysis. Ohm's Law, Kirchhoff's Laws, Network Theorems (Thevenin, Norton, Superposition and Maximum Power Transfer). Loop and Nodal Analysis. Steady state analysis of circuits with sinusoidal excitation using phasor domain concepts. Power, power factor and rms value. Single phase and three phase circuits. Prerequisites: Physics 211, MSCS 172, MSCS 305 or concurrent enrollment.

260a,b—8 (4,4) ENGINEERING MECHANICS. (a) Static equilibrium conditions for external and internal force and moment systems. First and second moments of lines, areas, and volumes. (b) Kinematics and kinetics of particles and rigid bodies. Newton's laws, momentum, and energy methods. Vector algebra and calculus used throughout. Prerequisites for a: Physics 211a; for b: 260a.

263—3 SURVEYING I. Fundamentals of plane surveying, use of surveying instruments, basic field operations, and computations. Laboratory included. Prerequisites: 101a, Phys 211a.

270—4 MECHANICS OF SOLIDS. Elastic deformations and stresses in two dimensional structural elements due to axial, bending, shear, and torsion loads. Stress-strain relationships, Mohr's Circle. Prerequisite: 260a.

300—4 THERMODYNAMICS AND HEAT TRANSFER. Element of classical thermodynamics, including the first and second laws of thermodynamics, equations of state in graphical, tabular, and equation form, and selected applications. Introduction to conduction, convection, and radiation heat transfer. Prerequisite: pre-engineering.

301—3 (1,1,1) JUNIOR ELECTRICAL ENGINEERING LABORATORY. Laboratory experiments which exemplify the material covered in junior electronics engineering courses. Characteristics of active devices and their uses, laboratory procedures, and measurement techniques. Prerequisites: for a: 326 or concurrent enrollment; for b: 301a, 327 or concurrent enrollment; for c: 301b.

303a,b,c—3 (1,1,1) INDUSTRIAL ENGINEERING LABORATORY. (a) Testing of mechanical properties of materials, harness testing, tensile and compression testing, notch toughness evaluation, torsion and bending. Introduction to metrology and analysis of measurement errors. Introduction to mechanic tools, lathe, milling and drilling machines, (b) Data Analysis, histograms, mean, mode, variance calculations, curve fitting, random sampling, central limit theorem, regression analysis, analysis of variance, quality control by attributes and by variables, MILSTD 105-D, use of SPSS and BMD programs. (c) Introduction to work analysis, operations and flow process charts, man-machine charts, flow diagram and plant layout, stopwatch study, performance rating, synthetic time data, work sampling, value analysis and cost estimation, human factors engineering. Prerequisites: (a) concurrent enrollment in 332; (b) concurrent enrollment in 410; (c) 471 or concurrent enrollment.

314—4 SOIL MECHANICS. Study of the theoretical and empirical principles of soil mechanics. Sampling, classification, shear strength, stresses and compressibility. Basic theories and assumptions for estimating settlement, bearing capacity, lateral earth pressures and slope stability. Laboratory included. Prerequisites: 230, 270, 316 (or concurrent enrollment in 316).

315—4 FLUID MECHANICS. Study of fluid statics; the continuity, energy, and momentum equations in integrated form; dimensional analysis; pressure flow in pipes; open channel flow; external flow and drag forces. Prerequisites: pre-engineering, MSCS305 or concurrent enrollment.

316—4 WATER RESOURCES ENGINEERING. Study of the hydrological cycle, rainfall-runoff relationships, ground water hydraulics, probability and frequency analysis, hydraulic structures, and reservoir engineering. Laboratory experiments to study the flow of fluids in conduits and in open channels. Prerequisites: 315, 319 or concurrent enrollment.

319—4 INTRODUCTION TO SYSTEMS ENGINEERING. Introduction to network analysis, linear programming, critical path scheduling, decision analysis, and linear regression, with emphasis on application in the areas of construction, environmental, structural and transportation engineering. Prerequisites: pre-engineering, 200, 270 (or concurrent enrollment in 270).

320—3 ELECTRONIC CIRCUITS. Active networks including physics of tubes and transistors, biasing of active devices, simple amplifier circuits, R-C coupled amplifiers, basic oscillators, feedback circuits. Not for electronic engineering concentrations. Prerequisite: pre-engineering.

321—1 ELECTRONIC CIRCUITS LABORATORY. Laboratory study of active networks illustrating principles discussed in 320. Prerequisite: 320 or concurrent enrollment.

322—3 ELECTRICAL MACHINES, CONTROL AND POWER. Three-phase power distribution, transformers, induction, synchronous and d/c motors, their operation and characteristics and control. Prerequisite: pre-engineering.

323—1 ELECTRICAL MACHINES AND INSTRUMENTATION LABORATORY. Laboratory experiments dealing with electrical machines and control illustrating principles discussed in 322. Prerequisite: 322 or concurrent enrollment.

326—3 DIGITAL ELECTRONIC CIRCUITS. Digital circuits and systems, using BJTs and FETs. Brief introduction to semiconductor device (diode and transistor) characteristics; AND, OR, NOT, NAND, NOR gates; various types of logic; combinational digital systems (binary adders, ROM, etc.); sequential digital systems (S-R, J-K, R and D-type flip-flops). Prerequisites: pre-engineering; 301a or concurrent enrollment.

327—3 LINEAR ELECTRONIC CIRCUITS. The course is concerned with analog electronics. The major topics covered are: 1) diode circuits (rectifying, clipping, clamping, function-generating); 2) BJT and FET transistors as circuit elements; 3) bias stability considerations; 4) small-signal mid-frequency analysis of common-emitter, common collector configurations of BJT and analogous forms of FET; 5) multiple-stage circuits; 6) applications of operational amplifiers; 7) low and high-frequency responses of transistor amplifiers.

328—3 APPLICATIONS OF INTEGRATED CIRCUITS. This course presents a study of advanced electronic circuits, with special emphasis on use of data sheets of currently used integrated circuits. Study is to include: operational amplifiers, feedback amplifier frequency response, operational amplifier compensation, operational amplifier systems, waveform generators using integrated circuit timers, oscillators and power supplies. Prerequisites: 327, 353 or concurrent enrollment.

330—8 (4,4) ENGINEERING ELECTROMAGNETICS. (a) The experimental laws of electromagnetcs are applied to obtain electric fields and magnetic fields resulting from static charge distributions and steady currents. The point form and integral form of Maxwell's equations are introduced and their applications to the formulation and the solution of problems is stressed. The concept of scalar electric and magnetic potentials is applied in obtaining solutions to certain class of problems. (b) Wave equations in the time domain and the phasor domain are formulated and their solutions are discussed. Propagation and reflection of plane waves in semi-infinite mediums are examined. Lumped parameter model for transmission lines is developed. Steady state and transient analysis of transmission lines are performed. Methods of analysis of the propagation of electromagnetic energy in rectangular wave guides is introduced. Formulation and solution of problems relating to the radiation of electromagnetic energy from elemental antennas and antenna arrays are considered. Prerequisites: (a) 350; (b) 330a.

332—4 MANUFACTURING PROCESSES AND MATERIALS. Introduction to manufacturing processes such as casting, powder metallurgy, metal forming, cold and hot working of metals, properties of engineering materials, selection of materials for manufacturing, introductory metallurgy including heat treatment of alloys, iron, and steels, welding, brazing, soldering and related welding processes. Prerequisite: pre-engineering.

340—8 (4,4) STRUCTURAL ANALYSIS I, II. (a) Analysis of statically determinate structures; influence lines and loading criteria for beams, trusses, and framed structures subjected to fixed and moving loads; computation of deformations by energy and geometric techniques; flexibility method of indeterminate structural analysis. (b) Classical stiffness methods of indeterminate structural analysis; slope-deflection and moment-distribution; influence lines for indeterminate structures: introduction to matrix stiffness methods. Must be taken in sequence. Prerequisites: pre-engineering, 270, MSCS 305.

341—4 PRINCIPLES OF ELECTRO-MECHANICAL ENERGY CONVERSION. The analysis and design of electromagnets and transformers are discussed. The basic principles of torque and force calculation for electromechanical energy conversion from the energy balance point of view is discussed. Lumped parameter models of energy conversion devices are developed. The steady state operational characteristics of A.C. and D.C. gnerators and motors are studied. Prerequisite: 330a.

348—4 INTRODUCTION TO INDUSTRIAL ENGINEERING. Introduction to industrial engineering, role of IE in manufacturing as well as retail industries, scientific management, plant location, site selection, plant layout, time and motion study methods improvement, resource allocation, transportation and assignment models, break-even analysis, time-value of money, productivity, wage-incentive systems, forecasting, resource scheduling using network methods, job sequencing. Prerequisite: pre-engineering.

350—4 CIRCUIT ANALYSIS. This course introduces the student to the solution of linear, time invariant, lumped parameter circuits. The major topics include: solution of first and second order circuits; zero input and zero state responses; the convolution integral; graphs and Tellegen's Theorem; node and mesh analysis in matrix form; Laplace Transform solutions of circuits; applications of network theorems, two port parameters. Prerequisites: pre-engineering; 200, MSCS 305.

351—4 LINEAR SYSTEMS AND ANALYSIS. The student is introduced to methods for input-output analysis of continuous and discrete linear, time invariant systems. Major topics include the application of the following to linear systems analysis: the convolution integral, Fourier series and transforms; Z transforms. Prerequisite: 350.

352—4 STOCHASTIC PROCESSES. Introduction to probability, random variables, and stochastic processes with emphasis on engineering applications. Power spectrum of stationary random signals and noise and the response of linear systems to random inputs. Prerequisite: 351.

353—4 LINEAR SYSTEMS ANALYSIS II. This course presents an introduction to linear systems analysis with applications in feedback control systems. Techniques studied will include: signal flow graphs, second-order systems, steady-state errors, state-space representation, state-space solutions, Root-locus, Bode plots, introduction to the Nyquist criterion, discretization of continuous systems and simulation. Prerequisites: 351, MSCS 305.

370—4 ENGINEERING MATERIALS. Quantitative and qual-

itative behavior of materials as related to the physical and chemical structure of solids. Laboratory determination of mechanical properties of materials. Prerequisites: pre-engineering, 270.

376—4 TRANSPORTATION ENGINEERING. Selected topics in air, highway, rail, water, and pipeline transportation. Introduction to planning and design of transportation facilities (geometric and structural). Prerequisites: 263, 319.

380—4 ENVIRONMENTAL ENGINEERING. Water Supply and Treatment. Planning and design of water supplies, distribution systems, and treatment systems. Prerequisite: 316.

382—4 DIGITAL LOGIC DESIGN. The devices necessary for the design of a microprocessor system are studied—codes, arithmetic and logic devices, memory elements, and combinatorial devices. The design of a sequential controller and a programmed microprocessor system are introduced. Selected projects which enhance conceptual ideas are performed. Prerequisite: 326.

395—2 to 8 READINGS IN ENGINEERING. Supervised reading in selected subjects. Prerequisites: junior or senior standing, concentration in engineering, consent of department chairperson.

401—2 (1,1) SENIOR ELECTRONIC ENGINEERING LABORATORY. Laboratory experiments which exemplify the material covered in junior and senior engineering courses. Introduction to advanced measurements techniques. NOT FOR GRADUATE CREDIT. Must be taken in sequence. Prerequisite: 301c.

402—4 PHYSICAL ELECTRONICS. Physical analyses of solid-state devices, including quantum mechanics and atomic structure; intrinsic and extrinsic semi conductors; diode and transistor (FET and BJT) physics; drift and diffusion in solids; lasers; p-npn devices. Prerequisites: 330a, Physics 302a,b.

406—4 DIGITAL SIGNAL PROCESSING. Discrete-time signals and systems; z-transforms; discrete fourier transform; flow graphs and filter implementation; FIR IIR filter design; introduction to FFT. Prerequisite: 353 or equivalent.

410—4 DESIGN OF QUALITY CONTROL SYSTEMS. The application of statistical methods to quality control. Emphasis on the integration of control charts, sampling plans and other techniques into the design of quality control systems. Prerequisites: pre-engineering, MSCS 380.

415—4 FOUNDATION ENGINEERING. Application of the fundamental principles of soil mechanics in the design and analysis of foundations (shallow and deep), retaining walls, cofferdams, pavements and earth embankments. Estimates of bearing capacity, settlement and slope stability values. NOT FOR GRADUATE CREDIT. Prerequisite: 314.

416—4 ADVANCED FLUID MECHANICS. Study of the continuity, energy, and momentum equations in differential form and their application to boundary layer flow, potential flow, compressible flow, and turbulent flow. Prerequisite: 315.

422—4 SOLAR ENGINEERING. Principles of solar thermal engineering, including nature and quantity of solar radiation, methods of solar thermal collection, determination of space heating requirements, and overall analysis and design of solar space heating and solar water heating systems. Prerequisites: 300, 315.

425—4 ELECTRON DEVICES. Fabrication methods, characteristics, and analysis of selected solid state devices (BJTs, FETs Tunnel Diodes, Optoelectronic Devices, CCDs, etc.). Prerequisite: 402.

426—4 INTEGRATED CIRCUITS APPLICATIONS. The study of applications of analog and digital integrated circuits. Consideration of the building blocks of analog integrated circuits. The characteristics of digital logic families such as noise, speed, power requirements, logic levels and loading rules. Prerequisite: 327 or equivalent.

432—4 ADVANCED MANUFACTURING ENGINEERING. Metal cutting theory. Machining processes such as turning, milling, boring, drilling, broaching. Mass production techniques. Design of jigs and fixtures, computer aided design (CAD), computer aided manufacturing (CAM) N-C machines, use of group technology in a manufacturing facility. NOT FOR GRADUATE CREDIT. Prerequisite: 332.

435—4 ANALYSIS OF POWER SYSTEMS. Component modelling and representation: numerical methods for solving non-linear algebraic equiations; load-flow analysis; fault analysis. Prerequisites: 341, 353.

440—4 STEEL STRUCTURES. Fundamentals of structural steel design by "allowable stress" and "maximum strength" methods. Familiarization with various steel design codes. NOT FOR GRADUATE CREDIT. Prerequisites: 340a, 370.

442—4 CONCRETE STRUCTURES. Investigation and design of reinforced concrete structural elements (beams, columns, slabs, footings). Emphasis on ultimate strength, time dependent behavior, and code requirements. NOT FOR GRADUATE CREDIT. Prerequisites: 340a, 370.

443—4 ENGINEERING DESIGN. Principles of engineering design. Individual laboratory projects of a research, design, or development nature to study the principles of engineering systems or components. NOT FOR GRADUATE CREDIT. Prerequisite: senior standing or consent of department chairperson.

444—3 ELECTRICAL ENGINEERING DESIGN. Elements of Design in Electrical Engineering. The student will be required to complete several "paper designs" selected from the various areas of Electrical Engineering. The final examination will

consist of the design of a project selected by the student with approval of the Engineering Faculty. This design will be used as the basis of the project in Engr. 445, Electrical Engineering Design Laboratory. NOT FOR GRADUATE CREDIT. Prerequisites: pre-engineering and senior standing.

445—1 ELECTRICAL ENGINEERING DESIGN LABORATORY. The design generated for final examination in 444 is constructed and tested. Student works in consultation with one of the members of the faculty. For certain projects, computer simulation may be used to supplement or even replace construction and testing of the design. NOT FOR GRADUATE CREDIT. Prerequisite: 444.

447—4 PRESTRESSED CONCRETE STRUCTURES. Investigation and design of prestressed concrete structural elements (beams, continuous beams, and slabs). Code design requirements are emphasized. Prerequisite: 442 or consent of instructor.

450—3 to 6 TOPICS IN ENGINEERING. A selected topic of special interest; the title includes the name of the topic (e.g., "Topics in Engineering: Urban Systems"). May be repeated to a maximum of 8 hours so long as no topic is repeated. Prerequisite: consent of instructor.

458—4 OPERATIONS RESEARCH—DETERMINISTIC MODELS. (Same as Mathematics 440.) Introduction to linear programming, problem formulation, simplex algorithm, transportation and assignment problems, duality theory and its economic interpretation, application of L.P. models to industrial problems, sensitivity, dynamic programming. Prerequisite: pre-engineering or consent of instructor.

460—4 OPERATIONS RESEARCH—STOCHASTIC MODELS. (Same as Mathematics 441.) Probabalistic models, elementary queuing theory with single or multiple server systems, use of queues in the facility designs, elementary decisions theory, Markov processes and decision making. Prerequisites: pre-engineering, MSCS 380, or MSCS 480a.

463—4 TRANSPORTATION SITE SELECTION. Engineering techniques in transportation facilities site selection including highway route surveying. Introduction to Photogrammetry and use of air photos to identify and evaluate engineering controls and constraints in site selection. Geometric design criteria as applied to transportation facilities. Laboratory included. Prerequisites: 314, 376.

465—4 CONTROL SYSTEMS. Analysis and design of linear feedback control systems using both classical and modern techniques. Performance characteristics based on steady state, transient, and stability considerations. Design of some representative control systems using Root-Locus, Bode and state variable feedback techniques is performed. Prerequisite: 353.

471—4 METHODS DESIGN AND WORK MEASUREMENT. Design of work systems, methods, and techniques employed in the measurement of work. Emphasizes current philosophy underlying improvement of work methods and procedures used to measure work performed. Four major areas are covered: methods design, standardizing the operation, work measurement, and training the operator. A number of projects correlating with the course materials are assigned. Prerequisites: 348, MSCS 380.

472—4 PRODUCTION PLANNING AND CONTROL. Analyzes and describes the recurrent problems of managing the flows of materials, services, and information produced in response to changes in market demand. Emphasizes the top-level decisions necessary to plan and control operations so that customers are served on time and penalty costs are minimized, as well as the decisions made by middle and first line managers in regard to scheduling and controlling, purchasing, production, and distribution. Selected decision-making techniques are analyzed and evaluated from the production manager's point of view. Prerequisite: 471.

474—4 OPERATIONS RESEARCH—SIMULATION. (Same as Mathematics 442.) Inventory theory, simulation models, generation of random variables, discrete event simulation using GPSS, continuous event simulation using CSMP. Prerequisites: pre-engineering and MSCS 380, or MSCS 480a.

475—4 URBAN TRANSPORTATION. Introduction to systems engineering, deterministic models (linear programming, transportation networks, and critical path scheduling). Trip generation, trip distribution, traffic assignment procedures, traffic analysis and traffic engineering procedures as utilized in urban transportation planning. Prerequisite: 376.

476—4 HUMAN FACTORS ENGINEERING. Study of human factors engineering and their impact on the design of product, work space arrangement. Analysis of man-machine system to increase the productivity and meet the physiological and psychological needs of those involved in the system. NOT FOR GRADUATE CREDIT. Prerequisite: 471.

477—4 CONSTRUCTION ENGINEERING. Application of engineering principles to modern methods of construction, construction planning, scheduling by critical path method, contract documents, economics, estimating and bidding, construction materials. NOT FOR GRADUATE CREDIT. Prerequisites: 314, 319, Economics 305.

478—4 TRANSPORTATION ENGINEERING—FACILITIES DESIGN. Design criteria and methods for airfields, highways, railroads and waterways. Emphasis on the geometrical design of the facility and the structural design of the load carrying element. Human factors are discussed considering their effects on physical design criteria. Prerequisites: 376, 314 and 463 or equivalent.

479—4 FACILITY LAYOUT AND PLANNING. Emphasis on integrating available resources to achieve an efficient production facility. Problems of plant location and material handling are also stressed. Prerequisite: 471.

480—4 ENVIRONMENTAL ENGINEERING UNIT OPERATIONS. Selected topics from analytical and physical chemistry as applied to the examination and treatment of water and wastewater. Principles of unit operations. Basic principles and theory of chemical reactors. Supplemental laboratory exercises and demonstrations of laboratory techniques. Prerequisite: 380.

482—4 MICROPROCESSORS. Study of architecture and basic elements of single board microcomputer systems. Study of several types (6800, 8080, 6502) with demonstrations and projects. Software and hardware designs for microprocessor control of external circuits. Prerequisite: 382 or equivalent.

483—4 DIGITAL PROCESSOR PROGRAMMING. Software requirements for general purposes, stored program digital processors. Machine instructions and information format required to transfer data of specific I/O devices, execute memory and register transfers, perform logical and mathematical operations, employ memory protect and interrupts and sense and display errors. Machine and source languages, assemblers, translators and compilers, loaders and system operation of a typical processor. Projects with interpretive and interactive programming, debugging, diagnostics and I/O utility programs for actual processors. Prerequisite: 382 or equivalent.

485—4 COMMUNICATION SYSTEMS. Basic elements of communications systems, including: digital communication systems including quantization noise, sampling and waveshaping; modulation, including amplitude, exponential and pulse; noise performance, including matched filters and probability of error determination. Prerequisites: 351, 352.

488—4 ADVANCED MECHANICS OF DEFORMABLE BODIES. Introduction to energy principles and their application. Problems in plane stress and strain. Beams on elastic foundations. Theories of failure. Introduction to plates and shells. Prerequisite: 340b or consent of instructor.

489—8 (4,4) ENVIRONMENTAL ENGINEERING DESIGN I, II. Water and wastewater treatment plant design. a) Design of sewers, sedimentation systems, filtration systems, and chlorination systems; b) Design of biological wastewater treatment systems: activated sludge, stabilization lagoons, anaerobic digestion, and trickling filters. Prerequisite: 480.

490—4 MICROWAVE CIRCUIT DESIGN. Introduction to microwave circuit design emphasizing microstrip line as the transmission medium. Matrix methods of transmission line analysis; behavior of microstrip line at microwave frequencies; analysis of parallel-coupled lines; design of some representative networks. Prerequisite: 330b.

496—4 TRANSPORTATION ENGINEERING — GEOMETRIC DESIGN. Geometric design criteria for ground transportation systems. The influence of the operator (or passengers), vehicle, travelway, and their interactions on the geometric properties and the effects of the various geometric parameters on each of them. Prerequisite: 478 or equivalent.

SCHOOL OF FINE ARTS AND COMMUNICATONS

ART AND DESIGN

Fees are assessed for all studio courses. These fees, if any, are noted at the end of each course description. Fees are billed at the beginning of the quarter. Fees are paid at the Bursar's Office.

Students dropping classes after the second week of the quarter will not be eligible for a cancellation of studio fees.

Art Education Courses: 289, 300, 364, 365, 408, 450, 451, 452, 460, 466.
Art History Courses: 225, 424, 447, 448, 449, 469, 470, 473, 481, 483; GHA 310, 311, 312, 315, 316, 317.
Studio Courses: 050, 051, 100, 202, 302, 305, 310, 312, 325, 331, 341, 358, 377, 384, 386, 393, 401, 402, 410, 412, 416, 417, 418, 420, 422, 430, 441, 484.

050—3 AVOCATIONAL PAINTING. An exploration of painting and drawing media for the interested non-major. Emphasis upon individual development of understanding and appreciation of painting media through direct experience in the practice of painting. May be repeated. Three hours credit applicable to degree except in art and design and teacher education. Fee: $7.98.

051—3 AVOCATIONAL CERAMICS. An introduction to ceramics for non-art majors. May be repeated up to 12 hours. Three hours credit applicable to degree except in art and design and teacher education. Fee: $19.98.

100—15 (3,3,3,3,3) BASIC STUDIO. (a) Drawing I. Introduction to some of the various approaches to drawing, utilizing a variety of media. (b) Visual Organization I. Introduction to and exploration of art concepts and form with emphasis on color. Work in two dimensions. (c) Drawing II. Continuation of (a) with emphasis on development of ideas. (d) Visual Organization II. Continuation of (b) with emphasis on three dimensions. (e) Life Drawing. A study of the human figure, utilizing a variety of media and further development of ideas and composition as they relate to the human figure. Must be taken in sequence. Fee: a, b, c, d, e—$7.98 per course.

202—24 (3,3,3,3,3,3,3,3) INTERMEDIATE STUDIO. (a) Sculpture. This course will provide a basic technical and conceptual approach to sculpture. Such processes as casting, carving, welding and construction can be explored. Stress is placed on personal expression and understanding the nature of sculptural development. (b) Printmaking. Introduction to fundamental printmaking techniques in relief and intaglio methods and multiple color printing. (c) Ceramics. Working with clay as an art medium. The student will also develop skills with glazing and firing, employing basic technique and technology while pursuing personal approaches and ideas. (d) Painting. Introduction to and exploration of oils as a medium of expression. (e)

Drawing. Exploration of various approaches to drawing and composition including some figure work. (f) Design. Problem solving relative to two-dimensional visual design, exploring a variety of tools and media stressing the organization and structure of creative design. (g) Watercolor. Introduction to and exploration of tools and media and their application. (h) Weaving/Textiles. Introduction to beginning weaving, off-loom fibers and fabrics. Techniques include primitive weaving, wrapping, stitchery, quilting, tie-dye and bleach-out. Need not be taken in sequence. Prerequisite: sophomore standing or consent of instructor. Fee: a, b, c: $19.98; d, e, f, g, h: $7.98.

225—9 (3,3,3) HISTORY OF WORLD ART. A study of painting, sculpture, and architecture from prehistoric to modern times. Emphasis on the major periods and great styles in relation to their geographical and social backgrounds. (Open to all students.) (a) The art and architecture of ancient and classical man. (b) Art of the medieval epoch and Renaissance. (c) Art from Renaissance to the present.

289—3 PRACTICUM IN ART EDUCATION. An introduction to the profession of art education in the elementary and secondary schools. Readings, discussions, observations and involvement with children in selected public/private schools. Clinical experience required. Prerequisite: third quarter freshman.

300—9 (3,3,3) ART EDUCATION IN THE ELEMENTARY SCHOOLS. For students preparing to teach in elementary schools. A study of objectives, theory, and practice of art activities for grades K-6; includes clinical experience in selected schools. (a) Exploration and experimentation of a variety of materials used in the teaching of art. (b) The development of motivational and instructional materials used in the teaching of art concepts. (c) Materials and methods for teaching art on the elementary level from the art specialist's perspective. Prerequisite: junior standing or permission of instructor. Fee: $7.98.

302—12 (3,3,3,3) BASIC STILL PHOTOGRAPHY. An introduction to basic still, black and white photography as an art form, including the history and aesthetics of photography. Students must provide their own cameras, light meters, film, and photographic paper. This course includes darkroom experience. (a) Basic Processes; Intermediate Controls, (b) Lighting; Advanced Controls, (c) Non-silver Processes; Zone System, (d) Alternative Photographic Processes. Must be taken in sequence. Fee: $7.98.

304—1 SEMINAR I. Preparation for professional career as an artist-teacher at the college or university level. An acquaintance with practical problems, including job analysis, job application, exhibiting, galleries, studio development and general problems confronting those who pursue college or university teaching careers. Prerequisite: upper-class student pursuing BFA degree or consent of instructor.

305—3 to 6 CERAMICS. Continued study of the clay medium as a means of expression. A more advanced study incorporating additional areas of technical and aesthetic development. May be repeated to a maximum of 12 hours. Must have consent of instructors to take more than three quarter hours per quarter. Prerequisite: 202c. Fee: $19.98.

310—3 to 6 PAINTING. Intensive study of painting as a medium of expression. Individual rather than group problems are engaged. May be repeated to a maximum of 12 hours. Prerequisite: 202—9, including 202d. Fee: $7.98.

312a,b,c—9 (3,3,3) ADVERTISING AND GRAPHIC DESIGN I, II, III. (a) I: The basic tools of the advertising designer. Introduction to styles of type, lettering techniques, layout problems, and reproduction processes for advertisements and illustrations in papers, magazines, posters, television, and pamphlets. Creative exercises in designing with type and illustrations. (b) II: Includes indication techniques for layouts in television and print media, incorporating illustration, photography, and typography. (c) III: Emphasizes the development of intermediate skills in preparing art for reproduction. Intern experiences are encouraged. Prerequisites: 200—9, including 202f, plus 302a or equivalent. Fee: $19.98.

325—3 to 6 STUDIO. No more than 6 hours per quarter. May be repeated to a maximum of 12 hours. Prerequisites: 9 hours in medium of choice (except where courses do not exist), consent of instructor. Fee: $7.98.

331—3 to 6 ADVANCED DRAWING. Exploration of various drawing techniques and media while intensively studying the human figure in environments. May be repeated to a maximum of 12 hours. Prerequisite: 9 hours of drawing or consent of instructor. Fee: $7.98.

341—6 (3,3) INTRODUCTION TO CARTOONING AND ILLUSTRATION. An introduction to various aspects of cartooning and commercial illustration. (a) Emphasis on cartooning and development of the graphic story (i.e., "comic strip"), includes lettering techniques, introduction to photomechanical processes, and preparation of artwork for reproduction. (b) Exploration of story and advertising illustration. Introduction to illustration techniques. Prerequisites: 100—15, 202b, d, e, f, or consent of instructor.

358—12 (3,3,3,3) PRINTMAKING. (a) Relief. A study of the materials, tools, and methods used in relief printing. (b) Intaglio. Fundamental etching, engraving, collographic, and embossing processes. (c) Serigraphy. An investigation of the various stencil processes used in screen printing. (d) Lithography. A study of the basic theories and processes of stone printing. Each part may be repeated once. Prerequisite: 202—9, including 202b. Fee: $19.98.

364—3 CURRICULUM DEVELOPMENT IN ELEMENTARY AND SECONDARY SCHOOL ART EDUCATION. The development of art programs emphasizing the scope and sequence of major goals, activities, and strategies important to the creative growth of children and youth. Prerequisite: junior standing or permission of instructor.

365—3 ART EDUCATION IN THE SECONDARY SCHOOLS. This is a course for education students specializing in art. A teaching methodology course dealing with projects designed to develop awareness of technical and aesthetic needs of youth. The course will cover reading, discussion, planning and teaching with an emphasis on studio and art appreciation. Includes clinical experience at a selected high school.

377—9 (3,3,3) MULTIMEDIA. (a) Qualities of materials; (b) process and systems; (c) four dimensional work. Should be taken in sequence. Prerequisite: 100—15 or consent of instructor. Fee: $7.98.

384—3 to 6 FIBER/FABRIC. Beginning and advanced problems in frame and floor loom weaving, off-loom fiber techniques, batik, printing, and quilting. May be repeated to a maximum of 12 hours. Prerequisite: 202—9. Fee: $7.98.

386—3 to 6 JEWELRY AND DESIGN IN METALS. The basic processes involved in forming and finishing art objects of metal as well as the lost wax process of casting metal via vacuum, centrifugal, gravity and steam techniques are investigated. May be repeated to a maximum of 12 hours. Prerequisite: 202—9. Fee: $7.98.

393—12 (3,3,3,3) SCULPTURE. Problems in modeling, carving, casting, and construction. Prerequisite: 202—9, including 202a. Fee: $19.98.

401—3 to 6 RESEARCH IN PAINTING. May be repeated to a maximum of 12 hours. Prerequisite: 310—12. Fee: $7.98.

402—3 to 6 RESEARCH IN SCULPTURE. An exploration of current trends in sculpture-making, with an emphasis on the interaction of technique and idea. May be repeated for a total of 12 hours credit. Prerequisite: 393—12. Fee: $19.98.

405—3 SEMINAR II. Preparation for a professional career as an artist or artist-teacher at the college or university level with emphasis on changes in the professional artworld. Includes career analysis, portfolio preparation, museum and gallery relation and general problems confronting those who pursue careers in higher education. Course activities coordinated with the visiting artists' program. Prerequisite: 304 for undergraduates.

408—12 (3,3,3,3) ART EDUCATION FOR ELEMENTARY TEACHERS. (a) Art Education for the Handicapped. An investigation of the needs and characteristics of the special child and the related art curriculum. The "special child" includes the mentally, physically, and emotionally handicapped. (b) Development of Motivational and Instructional Materials for Art Education. The development of motivational and instructional materials used in the teaching of art concepts. Emphasis on designing learning centers, kits, and games, and other instructional materials for use in the classroom. (c) Methods and Materials for the Classroom Teacher. Integrating art for the classroom teacher in the elementary curriculum. A survey of appropriate curriculum models. (d) Crafts in the Elementary School. A study and experimentation in the use of the crafts in the elementary school and other educational and recreational programs. Emphasis on two and three dimensional activities which have application in the traditional and nontraditional program. A wide variety of media is explored. Prerequisites: (a) 300a; (b,c) 300a, student teaching, consent of instructor. Fee: $7.98.

410—3 to 6 RESEARCH IN PRINTMAKING. May be repeated to a maximum of 12 hours. Prerequisite: 358—12. Fee: $19.98.

412—3 to 6 RESEARCH IN DESIGN. Individual research in technical and conceptual problems in graphic design. May be repeated for a total of 12 hours credit. Prerequisites: 302—9, 312—9, 341—3 or equivalent and/or consent of instructor.

416—3 to 6 GLASSWORKING. Techniques and assignments in basic methods of forming hot and cold glass. The development of creative ideas related to the use of glass as an art medium. May be repeated for total of 12 hours credit.

417—3 to 6 MULTIMEDIA II. Studio exploration of nontraditional art forms, including conceptual art, artists' events, visual performance art, installation pieces, and work incorporating change. Consideration of documentation by visual, verbal, or other means, including video. May be repeated for a total of 12 hours credit. Prerequisite: 377—6 or consent of instructor. Fee: $7.98.

418—3 METALSMITHING AND DESIGN. Traditional methods of forging metal with forge, hammer, and anvil are explored with emphasis toward application of these skills to the creation of sculpture. Prerequisite: 386—9 or 393 or consent of instructor.

420—3 to 6 RESEARCH IN CERAMICS. Supervised research in specific areas of technical and aesthetic interest. May be repeated for a total of 12 hours credit. Prerequisite: 305—12 or consent of instructor. Fee: $19.98.

422—3 to 6 RESEARCH IN PHOTOGRAPHY. Advanced pre-professional studio practice for fine arts and/or commercial photography. May be repeated for a total of 12 hours credit. Prerequisites: 302 - 12 quarter hour credits or equivalent and consent of instructor.

424—9 (3,3,3) BAROQUE AND ROCOCO ART. A study of the visual arts throughout Europe during the seventeenth and eighteenth centuries. (a) Southern European Baroque. The requirements of the Catholic Counter-Reformation and its influence on painting, sculpture, and architecture in Italy and Spain. (b) Northern European Baroque. The spirit of the Baroque in Catholic Flanders, the Protestant Baroque of the Dutch Republic and French Classicism. (c) Eighteenth Century, Rococo, rationalist, romantic, and middle class styles during the

eighteenth century, examined against the revolutionary shift from Baroque to modern society. May be taken independently. Prerequisite: 225—9 or consent of instructor.

430—3 to 6 STUDIES IN ART I. Advanced work in area of specialization or work under the joint supervision of the respective areas: art education, ceramics, drawing, fiber/fabric, graphic design, jewelry, multi-media, painting, photography, printmaking sculpture, or glassworking. May be repeated to a maximum of 12 hours. Prerequisites: art major with senior or graduate standing and consent of instructor(s). Fee: $19.98.

441—3 to 6 STUDIO IN DRAWING. Open only to junior, senior, and graduate levels. May be repeated to a maximum of 12 hours. Prerequisite: 12 hours of 300-level art. Fee: $7.98.

447a, b, c—9 (3,3,3) ANCIENT ART. (a) Prehistoric times through Egypt and Mesopotamia, (b) Aegean and Greek civilizations, (c) Etruscan and Roman civilizations. Prerequisite: 225—9 and/or consent of instructor.

448—9 (3,3,3) EARLY CHRISTIAN AND MEDIAEVAL ART. (a) Early Christian and Byzantine Art. A survey of problems related to art and architecture produced in Christian communities and under the aegis of the Byzantine Empire until the fall of Constantinople. (b) Early Mediaeval and Romanesque Art. A study of the development of architecture and art in Europe from the fall of the Roman Empire to the formulation of the Gothic style. (c) Gothic Art. A survey of major developments in architecture, sculpture, and painting in Europe from the earliest formulation of Gothic style to its decline in the Renaissance period. Prerequisite: 225a—3 or consent of instructor.

449—9 (3,3,3) RENAISSANCE ART. Architecture, sculpture, and painting from the waning of the Middle Ages to the beginnings of the Baroque period. (a) The Renaissance in Northern Europe. (b) The Renaissance in Italy and the south. (c) Mannerism in Europe. May be taken independently. Prerequisite: 225—9 or consent of instructor.

450—3 EARLY CHILDHOOD ART EDUCATION. Exploration and experimentation of the uses of art education practices in early childhood education. Methods and materials based on developmental needs. Prerequisite: 300a or consent of instructor.

451—3 ART EDUCATION IN CORRECTIONS. Introduction to the uses of art education in correctional settings such as prisons, county jails, and detention centers and the application of art education methods and practices to these selected populations in specific correctional institutions. Prerequisite: senior status.

452—3 ART EDUCATION FOR OLDER ADULTS. Introduction to the use of art education for older adults. Attention to physical, artistic and creative development as well as specific instructional approaches with media for the older learner will be explored. Prerequisite: senior status.

460—9 (3,3,3) RESEARCH IN ART EDUCATION. (a) Introduction to Styles and Topics of Research in Art Education. Review, analysis and criticism of current research in the field. (b) Readings in Selected Area of Research. Selection of a topic and development into a research study is explored through periodicals, books, and abstracts. (c) Design of Original Research Problems. Selection of a research assignment in one of the following areas: analyzing works of art in relation to another variable, curriculum development models, human development in the arts, alternative art programs. Prerequisite: (a) graduate standing or consent of instructor; (b) 460a; (c) 460b.

466—3 STUDIO IN ART EDUCATION. A studio course for art and elementary education majors as well as public school teachers. Explores concepts, techniques, and processes for such media as drawing, painting, weaving, ceramics, and sculpture, emphasizing their use in the classroom. Each medium studied in a separate three hour unit. May be repeated to a maximum of twelve hours so long as no medium is repeated. Prerequisites: admittance to Teacher Education Program, 300a and/or 365, student teaching. Fee: $7.98.

469—9 (3,3,3) THE ART OF AFRICA, OCEANIA, AND THE AMERICAS. (a) African Art. A study of the major stylistic regions of Sub-Saharan Africa with emphasis on the archaeological record, particularly as it relates to the Nok, Ife, and Benin Cultures. (c) Pre-Columbian Indian Art of the Americas. A study of the arts of the peoples of Mexico, Central and South America before the arrival of Columbus. (d) Post-Columbian Indian Art of the Americas. A summation of the decline of Mexican, Central, and South American cultures after European contact; the major focus is on the cultures and stylistic regions of North America. Prerequisite: 225—9 and/or consent of instructor.

470—3 TOPICS IN ART HISTORY. A course with variable content which may include (1) seminars on a specific artist, e.g., Michelangelo, Rembrandt; (2) investigations of branches of art historical inquiry, i.e., iconography, historiography, connoisseurship; (3) examinations of major trends and issues in art since the 1970s, e.g., Feminism, Post-Modernism, popular arts. Course may be repeated for a maximum of 12 hours credit as long as no topic is covered twice. Prerequisite: 12 hours of art history and/or consent of instructor.

473—9 (3,3,3,) WOMEN IN ART. (a) Survey of women artists from the Middle Ages through World War I, including consideration of the social, economic, and political environments in which these women worked. (b) Survey of women artists from World War I through the 1970's, including an examination of the position of women artists in the historical framework and consideration of the impact of the Feminist Movement. (c) Seminar with variable content, focusing on such topics as Feminist politics, approaches to education, impact of Feminism on Regionalism, etc. 473c may be repeated for a maximum of 6 hours credit, so long as topics are not repeated. Prerequisite: 225 or consent of instructor. Must be taken in sequence.

481—9 (3,3,3) OBJECTIVES OF MODERN ART. A survey of the principal movements and theoretical ideas manifest in late

nineteenth and twentieth-century art. Examination of the literature as it attempts to define the various developments in visual and plastic arts. (a) The Nineteenth Century, (b) 1900-1941, (c) 1941-Present. May be taken independently. Prerequisite: 225—9 or consent of instructor.

483—3 RESEARCH IN ART HISTORY. Individual research in the painting, sculpture, architecture, and related arts of the various periods. May be repeated to maximum of 12 hours. Prerequisite: 225—9 and/or consent of instructor.

484—3 to 6 RESEARCH IN WEAVING/TEXTILES. Independent and individual research in technical and conceptual problems in weaving and textiles. May be repeated to maximum of 12 hours. Prerequisites: 202h, 384. Fee: $7.98.

498—3 to 6 INTERNSHIP IN ARTS. Special and pertinent involvement in a work, study, or research activity designed and supervised by selected faculty members and a cooperating institution or organization. May be repeated to a maximum of 12 hours. Prerequisite: advanced undergraduate or graduate standing.

499—1 to 6 SENIOR THESIS. The nature of the final thesis is determined in respect to the student's major studio area and is directed by the student's major adviser. NOT FOR GRADUATE CREDIT. Prerequisites: senior classification, consent of department. Open to B.F.A. candidates only.

JOURNALISM

101—4 JOURNALISM AND THE DAY'S NEWS. Study of the role of the press in modern society by surveying print and broadcast and how they cover the day's news; interpretation of the day's events in response to information and commentary from the media; attention to the development of mass media. A discussion centered course.

103—4 NEWS. Study of the newspaper story with experience in reporting, writing, and rewriting news; the fundamentals of copyreading.

201—4 NEWS WRITING AND EDITING. Advanced experience in reporting and writing the news for newspapers and magazines, public relations, and corporate and institutional publications. Prerequisite: 103.

202—4 LANGUAGE AND STYLE OF JOURNALISM. Study of the style, language and special writing techniques of journalism. Prerequisite: 103.

210—4 INTRODUCTION TO PHOTOJOURNALISM. Experience with cameras used in journalism; darkroom techniques; study of elements of good news and feature photography, weekly assignments covering news stories with camera; exercises in photo editing. Still photography, black and white. Laboratory hours required. Prerequisites: 103, consent of instructor.

212—4 EDITING OF PHOTOGRAPHS AND ARTWORK. Assignment of illustration of newspaper and magazine stories; evaluation of photographs and artwork; selection, editing, and production of such artwork; study of values of photography; practical exercises in editing and displaying photography. Laboratory hours required. Prerequisite: 103.

303—8 (4,4) NEWS EDITING AND DESIGN. (a) Advanced copy editing, headlining and makeup for newpapers, magazines and public relations; stress on simulating procedures of professional publication; role and performance of editors; creative editing; (b) Publication design and graphic arts. Weekly laboratory sessions required. Prerequisite: 201.

310—4 ADVANCED PHOTOGRAPHY IN MASS COMMUNICATIONS. Studio photography. Aesthetics of photojournalism. Documentary photography. Creative darkroom experience. How to see and use color. Shooting color positives. Prerequisite: 210.

320—4 DEPTH REPORTING AND WRITING. Reporting contemporary events, problems, and issues in greater depth than required in 103 and 201; studying techniques for writing the long news story; interpretive and investigative reporting; analyzing and backgrounding the news; planning, reporting, and writing the series of articles. Prerequisite: 201 or Television-Radio 302.

321—4 COMMUNITY REPORTING. Advanced practice in reporting and writing news related to government, politics, law enforcement, educational institutions and the courts within various Metro-East and St. Louis communities. Class lectures, field trips and conferences with visiting experts will provide a closer look at city hall, the county courthouse, the federal building, state, federal and municipal police agencies, and federal and state courts. Prerequisite: 201.

330—4 EDITORIALS. The work and the responsibility of the editor, editorial writer, and broadcast commentator with emphasis on persuasive writing and thinking. Problems, methods, policies, and styles of persuasion as they are applicable to editorials.

340—4 THE LAW OF JOURNALISM. A study of the historical development and current status of the law as it relates to reporters, editors, and other practitioners in journalism. Emphasis is on analysis of statutory and case law for meaning and for practical impact on the journalist. Among the areas examined are libel, invasion of privacy, obscenity, free-press-fair trial, newsmen's privilege, copyright and advertising.

344—4 THE CONTRIBUTIONS OF JOURNALISM TO LITERATURE. A study of the newspaper and magazine writings of such American authors as Ernest Hemingway, Mark Twain, William Cullen Bryant, Theodore Dreiser, and Stephen Crane; a study of the contemporary press for instances where writing exceeds everyday standards and may approach the status of literature; a look at history to determine where journalists—writers, photographers, cartoonists—have contributed to literature and art.

345—4 HISTORY OF MASS COMMUNICATIONS. Development of American journalism with emphases upon the struggle for freedom of the press; outstanding men and institutions of mass communications; and social, political, and technological influences on and by print and broadcast journalism.

346—4 HISTORY AND PHILOSOPHY OF PHOTOJOURNALISM. Studying visual communicators from Matthew Brady and Lewis Hine to Henri Cartier-Bresson and W. Eugene Smith to understand the growth of photographic communication in the mass media and to gain insight into the motives behind photojournalism.

352—4 MAGAZINE ARTICLE WRITING AND PRODUCTION. The nature of magazine operation as it applies to the staff member and the free lance writer; studies of nonfiction magazine articles with submission by students of articles for publication; experience in magazine editing and production. Prerequisites: 103, 391, or consent of instructor.

361—1 to 4 CONTEMPORARY READINGS IN JOURNALISM. Reading of new books about mass communications and meeting with assigned instructor to discuss responses to them. Final paper required. May be repeated for 8 hours credit. Prerequisite: consent of instructor.

362—1 to 4 INDEPENDENT STUDIES IN JOURNALISM. Selecting an area of journalism for reading and research, presenting a final written report to a faculty member who approves the plan for study and agrees to be consultant to the student. May be repeated for total of 8 hours credit. Prerequisite: consent of instructor.

370—4 PRINCIPLES OF ADVERTISING. Advertising fundamentals in relation to modern business activities; economic and social aspects, research media, appeals, production, schedules.

375—4 ADVERTISING COPYWRITING. Processes and practices in the preparation of copy and layouts in the production of advertising for the print media. Prerequisite: 370 or Television-Radio 303.

380—8 (4,4) MASS COMMUNICATIONS AND PUBLIC RELATIONS. How reporting, writing, editing, photography, graphic arts, and broadcasting apply to public relations. (a) Study of principles and basic practices of public relations. (b) Public relations case studies.

381—4 BUSINESS AND INDUSTRIAL PUBLICATIONS. The role of trade, company and institutional newspapers and magazines; how they function, how they are staffed, and how they are produced; relationship of management and administration to editorial policies. Articles will be written by students for submission to these specialized publications. Prerequisites: 103, and consent of instructor.

391—4 FEATURE WRITING. How to plan and write features and special articles for newspapers, magazines and public relations.

402—2 to 8 CAMPUS PUBLICATIONS PRACTICUM. Study, observation, and participation in production of the J-Student, Focus magazine, Journalism Monograph, and other journalism laboratory or student publications and/or participation in a comparable professional setting, with number of credit hours to be determined by agreement of instructor and adviser in concentration. Prerequisite: consent of instructor.

410—5 INTERNSHIP IN JOURNALISM. Professional experience with local media in the various phases of journalism, under joint supervision of members of the journalism faculty and of the media. Prerequisites: journalism 400-level reporting, advertising or photography coursework; consent of director of journalism.

435—4 SEMINAR IN PUBLICATIONS MANAGEMENT. A study of advertising, business and circulation phases of newspaper and magazine production with the aid of guest speakers and instructors; observation of professional techniques and operations; assignments in solving management problems.

480—1 to 4 JOURNALISM PROBLEMS AND POLICIES. Students and faculty initiate significant topics drawn from journalism; members of class investigate topics, making reports in oral and written form. Prerequisite: junior standing in mass communications.

481—4 SPECIALIZED JOURNALISM. Study of and experience with areas of specialized journalism, like sports, science, education, critical writing for mass media, technical writing, investigative journalism, precision reportage, ecology, urban affairs, agency advertising, ad campaigns. Each offering designates one of these areas for study. May be repeated for credit. Prerequisite: consent of instructor.

482—4 SPECIAL STUDIES IN PHOTOJOURNALISM. Students and faculty choose an area in photojournalism for special study (i.e., photo essay, special reproduction techniques) and then combine theory and experience to solve problems in that area. May be repeated to include total of 8 hours credit. Prerequisites: 210, consent of instructor.

MUSIC

040—1 CLASS APPLIED MUSIC. Class applied lessons are designed as a preparation for individual private applied instruction. Students will participate in group and individual lessons to assimilate fundamental techniques and basic psychomotor skills on their instrument for the purpose of qualifying them for enrollment at the 140-level. May be repeated for a maximum of three quarters.

101—3 (1,1,1) CLASS APPLIED PIANO. Minimum instruction for passing proficiency examination in piano which is required for all music concentrations. Must be taken in sequence.

103a,b,c—9 (3,3,3) PRE-THEORY OF MUSIC. A study of music reading literacy, dealing with the fundamentals of pitch and rhythm organization and notation. Must be taken in sequence.

104—4 FOUNDATIONS OF MUSIC. An overview of the principles and procedures applicable to the reading, writing, and perception of music including rhythm, pitch, notation, scales, keys, intervals, chord structures, symbols and performance terms, with reference to their application to musical form and design.

105—12 (4,4,4) THEORY OF MUSIC. Fundamentals of music through sight singing, dictation, written and keyboard harmony. Must be taken in sequence. Prerequisite: piano proficiency or concurrent enrollment in 101.

111—2 (1,1) CLASS APPLIED STRINGS. Practical training in basic principles of playing violin, viola, cello, and string bass. Introductory techniques and methods for teaching these instruments in elementary and secondary schools.

112—2 (1,1) CLASS APPLIED WOODWINDS. Practical training in basic principles of playing woodwind instruments of the band and orchestra. Introductory techniques and methods for teaching these instruments in elementary and secondary schools. (a) Clarinet, saxophone. (b) Flute, oboe, bassoon. Must be taken in sequence.

113—2 (1,1) CLASS APPLIED BRASS. Practical training in basic principles of playing brass instruments of the band and orchestra. Introductory techniques and methods for teaching these instruments in elementary and secondary schools.

114—1 CLASS APPLIED PERCUSSION. Practical training in basic principles of playing percussion instruments of the band and orchestra. Introductory techniques and methods for teaching these instruments in elementary and secondary schools.

115—3 (1,1,1) CLASS APPLIED VOICE. Training in the basic principles of correct singing and diction. Introductory techniques and methods for teaching singing in the elementary and secondary schools. Must be taken in sequence.

140, 240, 340, 440—2 or 4 PRIVATE APPLIED MUSIC. Offered at five levels in the areas listed below. Credits given at 2 or 4 hours on each level. Consult with adviser for details of credit and requirements. May be repeated for three quarters at each level. Students with a concentration in Performance usually take 4 hours. Concentration in Music Education and all secondary concentrations usually take 2 hours. Prerequisite for 140: music concentration or secondary concentration or consent of music faculty. Prerequisite for higher levels: three quarters at the previous level on the same instrument or consent of instructor.

a. Violin
b. Viola
c. Cello
d. String Bass
e. Flute
f. Oboe
g. Clarinet
h. Bassoon
i. Saxophone
j. Percussion
k. Piano
l. French Horn
m. Trumpet
n. Trombone
o. Tuba
p. Baritone
q. Voice
r. Organ
s. Harpsichord
t. Harp
u. Classical Guitar

141, 241, 341, 441—2 or 4 PRIVATE APPLIED MUSIC: JAZZ. Individual instruction in performance of various jazz styles. Offered at four levels in the areas listed below. Credit is given at 2 or 4 hours on each level. Consult with adviser for details of credit and requirements. May be repeated for three quarters at each level. Students majoring in Performance usually take 4 hours; Music Education majors and Music minors usually take 2 hours. 441 courses are not for graduate credit. Prerequisite for 141: admission as Music major or minor and audition. Prerequisite for higher levels: three quarters at the previous level on the same instrument, and consent of instructor.

a. Jazz Piano
b. Jazz Percussion
c. Jazz Guitar
d. Jazz Bass
e. Jazz Saxophone
f. Jazz Voice

144—1 UNIVERSITY CHORUS. May be repeated.

165—3 (1,1,1) PIANO PRACTICUM. Keyboard harmony, sight reading, score reading, transposition, analysis at keyboard, improvisation, and harmonic examination of keyboard forms and techniques. May be repeated for credit up to 3 hours.

200—3 FUNDAMENTALS OF MUSIC. Rudiments of music for those with little or no musical background. Recommended as a course preliminary to 300 (not for music concentrations). May be taken concurrently with 101.

201—3 (1,1,1) CLASS APPLIED PIANO. Minimum instruction for passing piano proficiency examination which is required of all music concentrations. Must be taken in sequence.

205—12 (4,4,4) THEORY OF MUSIC. Advanced harmonic techniques, modulation, altered chords, chromatic harmony, counterpoint, and introduction to contemporary harmonic principles. Must be taken in sequence. Prerequisite: 105c.

219a,b,c—9 (3,3,3) LYRIC DICTION. Concentrated study of (a) French, (b) German, and (c) Italian lyric diction utilizing solo vocal literature; emphasis on the IPA, diacritical marks, vowels, consonants, semiconsonants, diphthongs, and syllabification; concomitant analytical study of formal style. May be taken in any sequence. Prerequisite: consent of instructor.

222—1 UNIVERSITY BAND. May be repeated.

231a,b,c—3 (1,1,1) JAZZ KEYBOARD THEORY. The examination and reproduction of jazz harmonic structures, utilizing the piano as the means of expression and standard jazz tunes

as practice materials. Must be taken in sequence. Prerequisites: 101c, 105c.

233—1 JAZZ LAB I. May be repeated. Prerequisite: consent of instructor.

240—2 to 4 PRIVATE APPLIED MUSIC. (See 140.)

241—2 or 4 PRIVATE APPLIED MUSIC: JAZZ. (See 141.)

244—1 COMMUNITY CHORAL SOCIETY. May be repeated.

301—9 (3,3,3) MUSIC EDUCATION. (a) Music in the elementary school curriculum, grades K-6. Analysis of instructional materials, development of rhythmic and melodic expressions, creative, instrumental, listening activities. Creating a musical environment in the classroom. (b) Junior high school: curriculum, organization, and administration of choral, instrumental, and general music classes; resource units; the adolescent voice. (c) senior high school: curriculum, organization and administration of choral, instrumental, and general music classes. May be taken in any sequence. For music concentration only.

309—9 (3,3,3) ORCHESTRATION. The techniques of writing for orchestral instruments. Must be taken in sequence. Prerequisite: 205c.

312—9 (3,3,3) COMPOSITION. Original composition in the smaller forms. Must be taken in sequence. Prerequisite: 205c or consent of instructor.

318—6 (3,3) CONDUCTING. (a) general fundamental conducting patterns, size of beats, use of each hand; conducting experience with laboratory groups both choral and instrumental; discussion and study of musical terminology. (b) Choral and instrumental: continued conducting experience through laboratory group; study of rehearsal techniques, balance, blend, and the relationship of parts to the total ensemble; evaluation and analysis of literature suitable for school groups of all levels of ability. Must be taken in sequence.

322—1 SYMPHONIC BAND. May be repeated. Prerequisite: by audition.

326—9 (3,3,3) ANALYSIS. Analysis of the important musical forms and styles. Must be taken in sequence. Prerequisite: 205c.

330—6 (2,2,2) JAZZ IMPROVISATION. Theory and techniques of jazz improvisation, with emphasis on functional harmony, melodic form, special scales, tune studies, ear training, and development of style. Prerequisite: consent of instructor.

331a,b,c—3 (1,1,1) JAZZ KEYBOARD THEORY. The examination and reproduction of jazz harmonic structures, utilizing the piano as the means of expression and standard jazz tunes as practice materials. Must be taken in sequence. Prerequisite: 231c or consent of instructor.

333—1 JAZZ COMBO. May be repeated. Prerequisite: by audition.

337—4 ANALYSIS OF JAZZ STYLES. Comprehensive course for music majors incorporating the examination and analysis of the work of important jazz innovators. The course will involve historial research, transcription and analysis of the particular styles of the jazz innovators selected for study. Prerequisites: 205c, GHA 338.

340—2 or 4 PRIVATE APPLIED MUSIC. (See 140.)

341—2 or 4 PRIVATE APPLIED MUSIC: JAZZ. (See 141.)

355—4 (1,1,1,1) CHAMBER MUSIC ENSEMBLES. (a) Brass, (b) Woodwinds, (c) Strings, (d) Percussion. May be taken in any sequence. Any part may be repeated for 12 quarters. Prerequisite: consent of instructor.

357—9 (3,3,3) MUSIC HISTORY AND LITERATURE. Prerequisite: GHA 230.

365—1 PIANO ENSEMBLE. Piano four hands, two pianos; piano and voice; piano and other instruments. May be repeated for credit at discretion of instructor.

377—1 UNIVERSITY SYMPHONY ORCHESTRA. May be repeated. Prerequisite: by audition.

401—3 PSYCHO-PHYSIOLOGY OF MUSIC. The essential human capacities, their relationship to musical potentials and development as well as with the acoustical foundations of the world of music.

409—6 (2,2,2) JAZZ ARRANGING. Designed to provide the student with the basic skills to arrange music for three jazz idioms: combo, big band, and studio orchestra. Areas of emphasis will include rhythm section continuity, orchestration, stylistic variety, the concept of tension and release, the examination of representative scores. A writing project will be required for each course section. Relevant provisions of copyright law will be presented. NOT FOR GRADUATE CREDIT. Prerequisite: 231c or consent of instructor.

411—12 (3,3,3,3) MUSIC LITERATURE. (a) Symphonic Literature. Development of the symphony and the symphonic poems to 1900. (b) Choral Literature. The literature of the larger vocal forms such as the cantata and oratorio to 1900. (c) Chamber Music Literature. Chamber music literature from the Renaissance to the present. (d) Special Areas. Study of a particular period, composer, style, or medium.

412—9 (3,3,3) COMPOSITION. Original composition in the larger forms for various media. Must be taken in sequence. Prerequisite: 312c or consent of instructor.

413—9 (3,3,3) PIANO LITERATURE. A survey of repertory for piano; methods of teaching the techniques of such literature. Taught in sequence. May be repeated to a maximum of 9 hours so long as no topic is repeated. Prerequisite: 340k.

420—1 MUSIC EDUCATION PRACTICUM. A shop-laboratory course dealing with the selection, adjustments, maintenance, and repair of musical instruments.

422—1 WIND ENSEMBLE. May be repeated. Prerequisites: by audition, concurrent enrollment in 222 or 322.

430—6 (3,3) ADVANCED IMPROVISATION. Involves the examination and performance of a variety of jazz structures, with special emphasis on the affective nature of improvisation. Such concepts as real-time composition and the Leonard Meyer analytical approach are incorporated to improve the aesthetic quality of improvised solos. It is assumed that the principles of note-selection, time-feel, phrasing, and articulation as developed in 330 (Jazz Improvisation) have been successfully assimilated. NOT FOR GRADUATE CREDIT. Prerequisite: 330c or equivalent.

433—1 CONCERT JAZZ BAND. May be repeated. Prerequisite: by audition.

436—3 JAZZ EDUCATION. Jazz Education is designed to provide the student with the knowledge of basic skills necessary to teach jazz at elementary, secondary, and college levels, both group and individual instruction. Prerequisite: consent of instructor.

440—2 or 4 PRIVATE APPLIED MUSIC. (See 140.)

441—2 or 4 PRIVATE APPLIED MUSIC: JAZZ. (See 141.) NOT FOR GRADUATE CREDIT.

442—9 (3,3,3) COUNTERPOINT. (a) Sixteenth-century counterpoint; (b) eighteenth-century counterpoint; (c) larger contrapuntal forms with emphasis on fugue. Prerequisite: 205c.

444—1 CONCERT CHORALE. May be repeated. Prerequisite: by audition.

451—3 TEACHING GENERAL CLASSROOM MUSIC.

455—2 to 6 ELEMENTARY MUSIC EDUCATION WORKSHOP.

460—6 (2,2,2) PRACTICUM IN OPERA. Skills, techniques, and literature used in the performance and production of operatic scenes, chamber operas, and operettas. Prerequisites: audition, 6 hours in applied theater.

461—9 (3,3,3) TEACHING TECHNIQUES AND MATERIALS. (a) Methods, (b) materials, (c) observation and teaching. Designed to meet the needs of applied students in which the problems of private studio teaching and college-level teaching are discussed. Must be taken in sequence. Prerequisite: 340k.

465—3 DEVELOPMENT AND TEACHING OF STRINGS. Place and function of string education in the elementary and secondary schools. Techniques of heterogeneous and homogeneous string teaching. Developing and sustaining interest in the string program. Resource aids. May be repeated for a total of 9 hours credit. Prerequisite: senior standing.

477—1 CHAMBER ORCHESTRA. May be repeated. Prerequisite: by audition.

481—1 to 3 READINGS IN MUSIC THEORY.

482—1 to 3 READINGS IN MUSIC HISTORY AND LITERATURE.

483—1 to 3 READINGS IN MUSIC EDUCATION.

499—1 to 3 INDEPENDENT STUDY. The capable student engages in original investigation with faculty specialists. May be repeated for credit. Prerequisite: consent of instructor.

SPEECH COMMUNICATION

200—4 PERSUASIVE SPEAKING. Designed for students who desire increased proficiency in preparation and delivery of speeches.

210—4 INTRODUCTION TO SPEECH COMMUNICATION. An introductory course designed to acquaint students with the discipline of speech communication. Topics will include the historical foundations of the discipline, the major interest areas and methods of inquiry in the field, and career opportunities for speech communication professionals. Prerequisite: GSK 123 or equivalent.

223—4 ADVANCED INTERPERSONAL COMMUNICATION. An examination of personal growth potential inherent in everyday informal relationships. Focus on interpersonal needs, values, perceptions, expressions of identity, emotions, evaluation, power, etc. Graded on a pass/no credit basis. Prerequisite: GSK 123 or equivalent.

300—4 COMMUNICATION IN INTERVIEWING AND COUNSELING. Survey of the communicative aspects of interviewing and counseling, the causes of failure in such situations, and the roles that speech communication can play in re-establishing contact. Practice with critiqued video playbacks featured. For students entering fields of education, counseling, social work, personnel management, and law.

301—4 PRINCIPLES OF SMALL GROUP COMMUNICATION. Principles and methods of group discussion. Current problems used as focus for exploring group behavior.

302—4 DEBATE THEORY AND PRACTICE. This course is

an introduction to debate theories and performance, emphasizing skills in research and analysis, reasoning and the use of evidence, affirmative and negative case building techniques and strategies, and refutation techniques.

303—4 COMMUNICATION IN BUSINESS AND ORGANIZATIONS. A survey of non-written business communication from a managerial perspective, focusing on: the organizational communication environment; the systemic, dyadic, group, employee, and the public communication processes; and techniques and application of successful business communication. Prerequisite: GSK 123 or equivalent.

309—1 to 8 INDEPENDENT PROJECTS IN SPEECH COMMUNICATION. Independent projects in human 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 maximum of 8 hours cumulative. Prerequisite: by permit only.

310—4 INTERRACIAL COMMUNICATION. Focus on personal dimensions of intergroup communication, especially the interaction of black and white Americans. Prerequisite: GSK 123.

313—4 INTRODUCTION TO PUBLIC RELATIONS. An introductory public relations course for majors in any academic area. Designed to develop an understanding for and appreciation of the PR function in society. Focus on presentational skills in oral, written, and visual modes of public relations. Lectures, PR simulations, and guest practitioners.

330—4 THEORIES OF COMMUNICATION. An introduction to models of and approaches to the process of communication. Multidisciplinary content. A foundation course on which a later, more advanced study of communication strategies and effects is built.

403—4 ADVANCED STUDY OF COMMUNICATION IN BUSINESS. A study of organizational variables which affect communication patterns; systems, channels, and networks of internal communication; communication problems in business organizations and suggested solutions; organizational communication research methods; training in the evaluation of communication effectiveness, diagnosis of weakness and implementation of recommendations. Prerequisite: 303, 330 or consent of instructor.

409—4 SENIOR SEMINAR IN SPEECH COMMUNICATION. For speech concentrations. Designed to tie together the entire undergraduate program in speech communication. Emphasis on the field of speech in academic, social, and career settings. NOT FOR GRADUATE CREDIT. Prerequisites: 24 hours in speech, senior standing.

410—4 CRITICISM OF PUBLIC COMMUNICATION. An introduction to various methodologies and viewpoints in speech criticism as a prelude to the formation of student-developed concepts of the critical act. The role of speech criticism as a force in society. Prerequisite: GSK 123.

419—4 SPECIAL TOPICS IN SPEECH COMMUNICATION. A variable content course that focuses on the impact of contemporary culture and society, art, media, and values in the definition and development of communication relationships. Emphasis is on pertinent contemporary problems. May be repeated for total of 12 hours so long as no topic is covered twice. Prerequisite: consent of instructor.

424—4 INNOVATIONS IN INTERPERSONAL COMMUNICATION. Designed to critique commercial courses which purport to offer increased awareness of self and/or skills in interpersonal communication. Provides a format for exploring the value of various innovative theories/approaches as they relate to the field of speech communication. Prerequisites: GSK 123 and consent of instructor.

430—4 THEORIES OF PERSUASION. A survey of prominent literature on attitude change and the varieties of social influence. Emphasis on theories supporting and generating relevant research.

431—4 PSYCHOLOGICAL ASPECTS OF SPEECH COMMUNICATION. The selection of topics and subfields within psychology which complement most closely the concerns of speech communication: e.g., the psychology of behavior, motivation, learning theory, maturation, and self-esteem.

432—4 SOCIOLOGICAL ASPECTS OF SPEECH COMMUNICATION. The selection of topics and subfields within sociology which complement most closely the concerns of speech communication: structural-functionalism, conflict theory, symbolic interaction, and exchange theory.

433—4 LANGUAGE AND SPEECH COMMUNICATION. The role and impact of language in speech communication development, processes and behavior. Emphasis on communicative barriers resulting from intracultural and intercultural differences in language usage during speech communication interactions. .

435—4 ANIMAL COMMUNICATION BEHAVIOR. An exploration of animal communication behavior among selected social species. Emphasis on the various means of communication employed, the communication function served, and on a comparison of the relative degrees of sophistication in communication behavior. Similarities to and differences from human communication. Prerequisite: consent of instructor.

460—4 ORAL COMMUNICATION IN THE ELEMENTARY SCHOOLS (K-6). Explores activities which may be incorporated into the elementary classroom to develop basic communication skills. Emphasis on the classroom as a verbal community. Recommended for elementary education concentrations and specialists.

461—4 STRATEGIES FOR TEACHING SPEECH COMMUNICATION. Philosophy of speech education and approaches for teaching speech in curricular and co-curricular settings. Meets for five hours. Prerequisite: 16 hours of speech or consent of instructor.

465—4 COMMUNICATION AND AGING. An analysis of how human communication across the life-span is affected by the aging process. Investigates research questions in human communication relating to gerontology. Prerequisite: consent of instructor.

489—1 to 12 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 12 hours, 4 of which may count toward a SpC major. NOT FOR GRADUATE CREDIT. Prerequisites: junior or senior, a major in Speech Communication, consent of faculty sponsor, and acceptance of organizational representative.

SPEECH PATHOLOGY AND AUDIOLOGY

100—0 to 2 SPEECH CLINIC. Designed for students with speech and hearing deviations who need individual help.

201—4 HUMAN COMMUNICATION AND ITS DISORDERS. Survey of the etiology, assessment, and management of communicative disorders with emphasis on the historical development of the field and on career opportunities.

231—4 PHONETICS. An introduction to the phonology of general American speech. Description and transcription of speech.

303—4 INTRODUCTION TO SPEECH AND HEARING SCIENCES. Basic orientation to physiological, acoustical, linguistic, and psychological aspects of normal human communication. Prerequisite: 231 or consent of instructor.

312—4 NORMAL LANGUAGE AND SPEECH ACQUISITION. Normal development of the linguistic code, including phonological, morphological, syntactic, and semantic attributes of human communication. Prerequisite: 231 or consent of instructor.

320—4 ANATOMY AND PHYSIOLOGY OF THE SPEECH AND HEARING MECHANISMS. Structure and functioning of the normal communication system. Prerequisite: 231 or consent of instructor.

360—4 HUMAN HEARING AND ITS DISORDERS. An orientation to the parameters of sound, psychoacoustics, anatomy, and physiology of the ear and significant aural pathologies.

400—1 to 4 INDEPENDENT STUDY IN SPEECH PATHOLOGY AND AUDIOLOGY. Activities involved are investigative, creative, or clinical. May be repeated up to 8 hours credit. Prerequisite: consent of instructor.

441—4 DISORDERS OF ARTICULATION. Basic principles of diagnosis and therapy. Clinical demonstrations and observations. Prerequisites: 201, 320.

442—4 DISORDERS OF VOICE. Basic principles of diagnosis and therapy. Clinical demonstrations and observations. Prerequisites: 201, 320.

443—4 STUTTERING. Basic principles of diagnosis and therapy. Clinical demonstrations and observations. Prerequisites: 201, 320.

444—4 LANGUAGE DISORDERS OF CHILDREN. Basic principles of diagnosis and therapy for developmental problems. Prerequisites: 312, 320.

445—4 LANGUAGE DISORDERS OF ADULTS. Basic principles of diagnosis and therapy for acquired language disorders. Prerequisites: 312, 320.

449—1 to 4 CLINICAL PRACTICE IN SPEECH PATHOLOGY. Supervised clinical practice. Fifteen clock hours of clinical activity for each hour of credit. May be repeated for a total of 6 quarter hours credit. Graded on pass/no credit basis only. Students must maintain a 3.5 grade-point average in order to enroll. Prerequisite: consent of program director and clinical supervisor.

450—4 CLINICAL PROCEDURES IN THE SCHOOLS. Orientation to speech pathology in the schools; methods, materials and organization. Prerequisite: consent of instructor.

452—4 CLINICAL PROCEDURES IN SPEECH PATHLOGY AND AUDIOLOGY. Principles underlying the clinical interview and client relationships. Procedures in obtaining, recording, and evaluating test results. Emphasis on principles of therapeutic methods. NOT FOR GRADUATE CREDIT. Prerequisite: consent of instructor.

461—4 BASIC AUDIOMETRY. Principles and techniques of pure tone and speech reception testing. Prerequisite: 360.

462—4 ADVANCED AUDIOMETRY. In-depth study of special tests for site-of-lesion and non-organic problems. Prerequisite: 461.

469—1 to 4 CLINICAL PRACTICE IN AUDIOLOGY. Supervised clinical practice in diagnosis and therapy of hearing problems. Twenty clock hours of clinical activity for each hour of credit. May be repeated up to 6 hours credit. Graded on pass/no credit basis only. Prerequisite: consent of program director and clinical supervisor.

471—4 AURAL REHABILITATION. Basic principles in the management of the hearing impaired; auditory training, speech reading, speech conservation and counseling. Prerequisite: 360.

498—4 NON-ORAL COMMUNICATION SYSTEMS. A course designed to provide information about nonspeech approaches which can be used with children and adults to augment oral speech. The course will include manual systems, communication boards, electronic devices and other communication aids/prostheses that utilize words, pictures and other symbols. Emphasis on evaluation, teaching strategies and adaptation of systems. Focus: neurologically impaired, autistic, retarded. Prerequisites: 441, 444, and 445 or consent of instructor.

TELEVISION-RADIO

100—4 PROCESS AND EFFECTS OF MASS COMMUNICATION. Through lectures, discussions and audio-visual presentations, the class will examine the history, organization, role and current status of newspapers, magazines, broadcasting, film, cable, public relations, advertising and corporate communications.

200—4 SURVEY OF BROADCASTING. A lecture course. Lectures and discussions on the history of broadcasting, network structure, the industry as a part of American business, cable television, the Federal Communications Commission and related areas.

201—4 BROADCAST WRITING. A study of the fundamentals of broadcast writing, including commercial copy, interviews, music and feature programs. Prerequisite: typing skills, mass communications major.

202—4 BROADCAST PERFORMANCE. A skills course: one lecture, four hours laboratory, intensive practice in studios. Provides extensive studio practice in all forms of broadcast talent, including both commercial and voice-over announcing, on-camera host experiences for talk and/or public affairs presentations. Students prepare their own material for studio presentation. Prerequisite: consent of instructor.

230—4 RADIO PRODUCTION. A skills/content course. One lecture/critique session, four hours laboratory. Students will prepare live and taped radio programs to include news, music shows, interviews, sound stories and a drama or documentary. Prerequisite: mass communications major and/or consent of instructor.

252—4 TELEVISION LABORATORY. A skills/content course designed to acquaint the student with basic television equipment and principles of studio operation. Emphasis on the production of laboratory programs with students participating in various activities involved in studio production. Prerequisite: 201, 230 and/or consent of instructor.

301—5 TELEVISION PRODUCTION. A skills/content course. Three lecture/critique sessions, 4-6 hours laboratory. Special emphasis on the use of scenic design and set construction, properties, lighting, special effects, graphics, costuming, make-up and acting for television. Prerequisites: 252 (with a "B") and consent of instructor.

302a—4 RADIO NEWS. Advanced course and lab. Designed to give students insight and practical overall experience in broadcast news concepts, writing, reporting, and presenting a complete radio news program (weekly). Prerequisites: 201 and/or Journalism 103.

302b—4 TELEVISION NEWS. Advanced course and lab. Designed to give students insight and overall practical experience in TV news concepts, writing, producing, reporting, and presenting a complete TV news program. All newscasts are recorded and played back for in-depth evaluation in class. Prerequisites: 302a and 252.

303—4 BROADCAST ADVERTISING. Radio and television as advertising media. Planning a campaign, production techniques, agency relationships, cost factors. Extensive preparation of commercial materials. Merchandising, promotion, interpretation of research. Prerequisite: 201 and/or consent of instructor.

359—4 DRAMATIC WRITING. A study of basic structure of broadcast drama, writing of scenes and analysis of short and long dramatic works. Term project: A play analysis paper or original short play. Individual students work in the areas of television, film, or radio. Prerequisite: 201 and/or consent of instructor.

400—4 SEMINAR IN MASS COMMUNICATIONS. Seminar for students in senior standing. Function, concepts and performance of press, radio and television in the area of information are examined and standards for evaluation developed and applied. Visits to area media and discussion with media news management executives and journalists. May not be repeated. Prerequisite: senior standing in Mass Communications or consent of instructor.

401—4 CRITICISM IN THE PUBLIC ARTS. The examination of television, radio and film programs as art forms. Comparison and contrast with other lively and fine arts. Social, moral, aesthetic and commercial evaluations. Development of critical standards through extensive study of media programs. Prerequisite: senior standing.

402—4 SEMINAR IN BROADCAST ADMINISTRATION. The class will meet with management executives from area media to discuss such subjects as management responsibility, research goals, use of capital, advertising, public broadcasting, public relations. A research paper is required. Prerequisites: senior standing, mass communications major, and consent of instructor.

404—4 RESEARCH IN BROADCASTING. The application of

research techniques in mass media. Evaluation of research. Participation in a research project designed by the class. Prerequisite: senior standing and/or consent of instructor.

405—4 THE DOCUMENTARY FILM. Survey of the development of the documentary film from the beginnings to the present. Directed readings; viewing of representative films; criticism; discussion of the documentary film movement.

406—4 SPECIAL EVENTS. Special events broadcasting on radio and television and cable. Emphasis on remote broadcasting. Training in the preparation and production of one-time and/or occasional broadcasts. Audio, videotaped program preparation. Prerequisites: junior standing, mass communications major, and consent of instructor.

407a—4 INTERNATIONAL COMMUNICATION — MEDIA IN HIGHLY INDUSTRIALIZED DEMOCRACIES (EUROPEAN). Designed to acquaint students with geo-socio-economic environment of media and the development, concepts, structure, controls, financing and programming policies of media systems in non-American, highly industrialized nations. Students will conduct comparative studies of selected foreign media systems and the U.S. system. Prerequisites: senior standing, consent of instructor.

407b—4 INTERNATIONAL COMMUNICATION — MEDIA IN COMMUNIST SYSTEMS (SOVIET, EUROPEAN). Designed to provide students an opportunity to study some basic aspects of theory and practice of mass communication in Soviet-type communist (European) systems. Special attention is given to philosophical and economic foundation of the communist concept of mass communications, the structure of communist media systems, the relationship of media to the Communist party and government, the control system and programming concepts. Prerequisites: senior standing, or consent of instructor.

407c—4 INTERNATIONAL COMMUNICATION — MEDIA IN DEVELOPING COUNTRIES. Designed to acquaint students with various aspects of radio and television broadcasting in Third World countries. Linguistic, political, economic, cultural and religious aspects of broadcasting will be studied. Prerequisites: senior standing, or consent of instructor.

408—4 TELEVISION AND RADIO REGULATIONS. Federal legislation with emphasis on Communications Act of 1934 and the regulations of the Federal Communications Commission. Examination of legal problems, key court cases in such areas as invasion of privacy, libel, Fairness Doctrine, Equal Time, copyright, cable regulation, license renewal and deregulation. Prerequisite: 200 or consent of instructor.

410—5 INTERNSHIP IN BROADCASTING. To provide a marketplace experience for students of senior standing in one of the area mass media institutions. Credit is earned through intensive work under the joint supervision of the professional host and the Director of internships. Prerequisites: mass communications major, senior standing and a 3.50 average in mass communications courses.

466—4 ADVANCED PRACTICES. Advanced work in which the student has completed all of the formal course work. Included are work in news, advertising, writing, announcing, and production-direction. May be repeated for a total of eight hours. Prerequisite: consent of instructor.

490—4 SPECIAL PROBLEMS IN MASS COMMUNICATIONS. Special projects, research, and independent study in mass communications under the guidance of a faculty supervisor. May not be repeated. Prerequisite: consent of instructor.

499—1 to 4 CONTEMPORARY READINGS IN TELEVISION-RADIO. Selected readings in-depth with a member of the faculty, with special attention to contemporary books and periodicals. May be repeated to a maximum of 4 hours. Prerequisites: consent of adviser, senior standing.

THEATER

100, 200, 300, 400—2 or 4 APPLIED THEATER. Offered at four levels in the areas listed below. Credit is given at 2 or 4 hours on each level. Consult Schedule of Classes and adviser for information regarding credit and offerings during a particular quarter. May be repeated three additional quarters at any level.

a. Acting
b. Business Management (200, 300, 400 only)
c. Costume Design-Production
d. Scene Design
e. Jazz Dance Techniques (400 level only)[1]
f. Fencing (100, 200 only)
g. Musical Theater (300, 400 only)
h. Ballet
i. Improvisation (300, 400 only)
k. Sound for Theater (200, 400 only)
l. Lighting (200, 300, 400 only)
m. Make-up
n. Rhythmic Structure (200, 400 only)
o. Dance Composition (200, 300, 400 only)
p. Rehearsal-Performance
q. Special Projects
r. Directing (300, 400 only)
s. Stagecraft (100, 200, 400 only)
t. Modern Dance Techniques (200, 300, 400 only)
u. Movement (100, 200, 400 only)
v. Voice
w. Scene Painting (200, 400 only)
x. Dunham Technique
y. Primitive Rhythms in Dance
z. Dance Rehearsal Performance (300, 400 only)

[1]May be repeated two additional times, up to a maximum of 12 hours credit. Prerequisites: advanced work in dance and consent of instructor.

200—2 or 4 APPLIED THEATER. (See 100.) Prerequisite: 100.

224—4 COMMUNICATIVE READING. Study and practice of techniques used in the oral presentation of various forms of literature: prose, poetry, and drama. Textual analysis, vocal and physical skills, and staging techniques as applied to performance situations.

300—2 or 4 APPLIED THEATER. (See 100.) Prerequisite: 200.

302—4 DANCE DESIGN. The nature of special design problems encountered in planning and executing stage environments for dance compositions. Set, costume, lighting, and make-up design. Project work includes theoretical, experimental, and practical work in the areas of classical and modern dance. Prerequisites: upperclass standing, consent of instructor.

400—2 or 4 APPLIED THEATER. (See 100.) Prerequisite: 300.

401—12 (4,4,4) HISTORY OF THE THEATER. A study of drama, performance, architecture, design, and cultural environment of (a) Primitive, Greek, Roman, Pre-Renaissance; (b) Renaissance, Neo-Classical; (c) Romantic and Modern.

402—4 (2,2) HISTORY OF DANCE. The development of dance from its beginnings to its present art form. (a) Beginnings through Renaissance. (b) Post-Renaissance to present. Need not be taken in sequence.

403—4 METHODS AND MATERIALS OF DANCE EDUCATION. Designed to acquaint the dance student with the principles and methodologies of dance instruction as related to the areas of ballet, modern, and jazz. Instructional work with the following populations: preschool, elementary, junior and senior high, and adult. Emphasis on practical problem solution. Prerequisite: upperclass standing.

404a,b—8 (4,4) FORMS OF DRAMATIC ACTION. A two-quarter sequence dealing with the principles of dramatic action as exemplified in selected plays. Emphasis on the functional relationships between theatrical process and dramatic form. (a) tragedy; (b) comedy. Prerequisites: advanced standing, consent of the instructor.

415—4 DANCE ANTHROPOLOGY. (Same as Anthropology 415.)

GENERAL STUDIES

SKILLS (GSK)

100a—1 STUDY SKILLS. An introduction to academic survival skills. This course is designed to acquaint students with the following: note taking techniques, test taking strategies, various study systems and time management, goal setting, communication and problem solving skills.

100b—1 READING SPEED AND EFFICIENCY. Designed for the person who is reading at college level who wants to further improve reading rate and efficiency. Comprehension skills, vocabulary, textbook reading efficiency, and rate will be emphasized. Prerequisite: college level reading skills.

100c—2 CAREER PLANNING AND DEVELOPMENT. The necessary factors an individual must consider in order to select and implement a career choice through a systematic analysis of self awareness, decision-making strategy, and career information.

101—4 ENGLISH COMPOSITION. Practical and efficient training in the shorter written forms: the sentence, the paragraph, the short essay.

102—4 ENGLISH COMPOSITION. Advanced practical training in college-level writing, including fundamentals of research and writing the term paper. Prerequisite: GSK 101.

123—4 ORAL COMMUNICATION OF IDEAS. The basic principles and techniques of oral communication as applied to everyday speech activities.

152—4 CRITICAL THINKING. Study and practice of critical thinking and correct problem-solving methods, with emphasis on organizing information, analyzing meaning, producing correct arguments, detecting fallacies and using rational methods of investigation.

162—4 REASONING AND PROBLEM SOLVING. Aids student in enhancing and developing basic skills in reasoning and problem solving. Application occurs throughout course.

HUMANITIES AND FINE ARTS (GHA)

101—4 INTRODUCTION TO LITERATURE. Masterpieces of literature (drama, fiction, poetry) are read and discussed to teach how to read the three genres with enjoyment and understanding. Should have completed GSK 101.

110—4 INTRODUCTION TO ART. Basic introduction to the visual arts, particularly painting, sculpture, and architecture. The primary objective is to cultivate skill and discrimination in seeing and understanding works of art from many periods.

120—4 RELIGION, REASON, AND HUMANITY. A philosophical examination of selected views on the question of a religious dimension in human experience, with emphasis on the factors involved in belief and nonbelief.

136—4 INTRODUCTION TO MUSIC HISTORY/LITERATURE. An introduction to the elements of music, and to the important composers, periods, styles, and forms of music.

140—4 AN INTRODUCTION TO MODERN FOREIGN LANGUAGE. A comparative introduction to the modern Romance, Germanic, and Slavic languages, beginning with a consideration of the hypothetical Indo-European parent-speech and its development into the "Family" including the Germanic Group, the Italian Group, and the Balto-Slavic Group.

141—4 BUILDING VOCABULARY THROUGH LATIN AND GREEK WORD ELEMENTS. Through practical exercises, learning to expand vocabularies through the system of prefix-

root-suffix word building which English has borrowed from Latin and Greek.

150—4 THEATER TODAY. Designed to familiarize the general student with the nature and function of contemporary live theater. Emphasis on the workings of theater as they are designed to elicit specific responses from audiences. Lecture/discussions, readings, viewing of plays. Objective examinations and optional research activity.

168—4 THE FINE ARTS. An introduction to five of the forms in which art can occur; the visual arts, music, dance, theater, and the media of mass communications; their differences and their similarities. Discussion not through survey but through careful examination of individual works.

202—4 THE AMERICAN CHARACTER. An attempt to define what is meant by the character of the image of Americans. Through extensive readings in the bibliography of the area offered by historians, literary figures, philosophers, anthropologists, sociologists, psychologists, etc., and through a discussion of the important themes in American history, some understanding of national consciousness can be gained.

203—4 LITERARY MASTERPIECES OF ANTIQUITY. Reading (in translation) and discussion of selected literary texts from the Greek, Roman, and Judeo-Christian traditions.

204—4 STUDIES IN SHORT FICTION. A study of the modern short story as an artistic expression, its techniques, and its versatility.

205—4 AFRO-AMERICAN LITERATURE. Reading and discussion of selected literary texts from the earliest black American writers in the 1700s to the present.

206—4 INTRODUCTION TO THE NOVEL. A study of the novel, emphasizing the technique of the novelist and his concern with continuing human problems.

207—4 CHANGE AND THE ENGLISH LANGUAGE. A survey for the general student of changes in vocabulary, meaning, and sentence patterns which have taken place in the English language. The course begins in the present and works back to early written records such as the first translation of the Bible.

209—4 CLASSICAL MYTHOLOGY AND ITS INFLUENCE. The major myths; their origin, nature, interpretations, influence, relevance, and use in the modern world.

224—4 PHILOSOPHICAL MASTERPIECES. Reading and discussion of selected philosophic masterpieces of western civilization.

230—4 MUSIC HISTORY/LITERATURE. Development of choral and instrumental music from the Renaissance to the present. Prerequisite: 136 or equivalent.

282—4 ISSUES IN FEMINISM. (Same as GSS 282.) Critical examination of the beliefs, values, and commitments of the women's movement.

303—4 FOLKLORE. The types of folklore, based on the culture-reflection approach, with extensive readings in American folklore and an introduction to European folklore; practice in collecting, classifying, and coding, and in the use of Thompson's Index.

305—4 STUDIES IN BIOGRAPHY. Reading, discussion, and evaluating various forms of biographical work in historical and literary context. Opportunity for individual work in the student's area of concentration.

306—4 INTRODUCTION TO THE BIBLE. Reading and discussion of the Old and New Testaments in English translation, informed by attention to their literary, historical, and theological contexts.

307—4 INTRODUCTION TO SHAKESPEARE. Designed to acquaint the general student with Shakespeare's life, the theater of his time, and representative plays and poems.

308—4 DETECTIVE FICTION. The development of detective fiction, from its nineteenth century beginnings to the present.

310—4 MODERN ART A: THE NINETEENTH CENTURY. A survey of important artists and movements from 1789 to 1900 with special attention to their social contexts and intellectual milieux. David, Delacroix, Ingres, Courbet, Manet, Degas, Monet, Renoir, Rodin, and others.

311—4 MODERN ART B: THE EARLY TWENTIETH CENTURY. A survey of important artists and movements from the 1880s through the 1930s with special attention to the social context and intellectual milieu. Cezanne, Seurat, Van Gogh, Matisse, Rouault, Picasso, Braque, Gabo, Mondrian, and others.

312—4 MODERN ART C: THE MID-TWENTIETH CENTURY. A survey of important artists and movements from the 1800s to the present, emphasizing the later developments. Attention to the social contexts and intellectual milieux, German expressionism, surrealism, the Bauhaus, modern architecture, and contemporary American painting and sculpture.

315—4 AMERICAN ART I. A study of the visual arts in the United States. While the emphasis is upon architecture, painting, and sculpture in the context of American social and cultural evolution, the minor arts also are placed in perspective. 315, 316, 317 may be taken in any sequence.

316—4 AMERICAN ART II. A continuation of American Art I dealing with art of the nineteenth century. 315, 316, 317 may be taken in any sequence.

317—4 AMERICAN ART III. A continuation of American Art II with emphasis on the art of the twentieth century. 315, 316,

317 may be taken in any sequence.

320—4 EXISTENTIALISM. A survey of typical existentialist writers such as Kierkegaard, Nietzsche, Jaspers, Sartre, Camus, and Marcel, focusing on such issues as liberty, the meaning of the self, finitude and death, and the meaning of religious experience.

321—4 PRAGMATISM. A critical examination of pragmatism as a contemporary perspective on life, reality, and American culture.

322—4 ETHICS. An investigation of the basic problems related to deciding how men ought to act and of modern discussions of individuals and social morality.

338—4 JAZZ. Jazz forms and styles: development, illustrations, performances.

345—12 (4,4,4) MASTERPIECES OF WORLD LITERATURE IN TRANSLATION. A study of the representative literary works of selected cultures. (a) Medieval, Renaissance and Baroque; (b) Enlightenment, Romanticism and Realism; (c) Contemporary.

354a—4 GREAT AGES OF THEATER: FROM THE GREEKS TO THE NEOCLASSICISTS. An introduction to the theatrical practices of the great ages of western theater. The Greek, Roman, medieval, Italian and English Renaissance, French neoclassical, and eighteenth century English theaters. Special attention to selected plays from each period or movement and to the ways in which these works were staged.

354b—4 GREAT AGES OF THEATER: FROM ROMANTICISM TO THE PRESENT. An introduction to the theatrical practices of the great ages of western theater. The major movements of the nineteenth and twentieth centuries: romanticism, realism, naturalism, symbolism, expressionism, absurdist, and post-absurdist. Special attention to selected plays from each period or movement and to the ways in which these works were staged.

NATURAL SCIENCE AND MATHEMATICS (GSM)

101—4 INTRODUCTION OF PHYSICAL SCIENCE. A non-mathematical study of motion, matter, electricity, magnetism, and the atom.

110—4 EARTH AND ITS GEOGRAPHIC ENVIRONMENT. An introduction to the earth's place in the solar system, the earth-sun relationships, and the earth's atmospheric activities.

111—4 EARTH AND ITS GEOLOGIC ENVIRONMENT. An introduction to deformation of the earth's crust, mountain uplift, continental drift, earthquakes, rocks and minerals, and glaciation.

120—4 CONTEMPORARY CHEMISTRY. A study of selected fundamental principles of chemistry, especially the atomic and molecular nature of matter and of the pervasive role of chemical knowledge and technology in the contemporary world.

130—4 CONTEMPORARY BIOLOGY. An examination of the major contributions of biology to an understanding of ourselves and our world. The development, nature, and human implications of the cell theory, heredity, the modern synthetic theory of evolution, population dynamics, and ecology and environmental problems. No credit will be given to students who have had Biology 200 or the equivalent.

131—2 LIFE: ECOLOGY AND DIVERSITY. A study of living organisms and the environmental factors and evolutionary mechanisms influencing their diversity and distribution. No credit will be given to students who have had Biology 200 or the equivalent.

140—8 (4,4) SURVEY OF ELEMENTARY MATHEMATICS. An introduction to some fundamental concepts in mathematics. (a) Sets, logic, systems of numeration, integers, rational numbers, real numbers. (b) Sentences in one variable, nonmetric geometry, metric geometry, probability, statistics. Prerequisites: (a) one year high school mathematics and satisfactory score on A.C.T., or consent of instructor; (b) 140a or consent of instructor.

144—5 COLLEGE ALGEBRA. A concept-oriented course intended to provide insights into basic principles and properties of elementary mathematical and algebraic structures. Designed with the needs and interests of the general student in mind. Prerequisite: one and one-half years high school algebra and one year high school geometry, or equivalent.

210—4 FOSSIL ORIGINS OF MAN. The origin, evolution, and morphology of the major invertebrate phyla and vertebrate classes that occur as fossils. The relationship of man to evolution and his paleontologic history.

212—4 CONSERVATION OF NATURAL RESOURCES. The correct use of the natural resource base of our nation.

213—4 WEATHER. A general survey of the influences of weather and climate on man's occupations and his recreation and on industries, soils, vegetation, food production, and on animals.

221—4 ENVIRONMENTAL POLLUTION. General aspects of the various types of pollution including sources, magnitude, harmful effects, and methods of controlling. Prerequisite: high school or college chemistry.

230—4 HUMAN DISEASES. A study of the various types of human diseases and of the various defense mechanisms that are available to combat these. The metabolic and cellular bases of diseases are stressed. Viral, bacterial, and parasitic diseases, cancer, inherited disorders, congenital defects, diseases of action of antibiotics and antimicrobial agents. No credit will be

given to students who have had Biology 200 or the equivalent. Prerequisite: 130.

231—4 HUMAN HEREDITY AND SOCIETY. Principles of human heredity as applied to individuals, kindreds, and populations. Genetic aspects of contemporary biological social problems. No credit will be given to students who have had Biology 200 or the equivalent. Prerequisite: one year high school biology.

232—4 PLANTS AND CIVILIZATIONS. An examination of the role of plants in man's social and economic history and of the role of man in the modification and distribution of plants. Prerequisite: one year high school biology.

233—4 HUMAN SEXUALITY AND REPRODUCTION. A discussion of sexual anatomy and physiology, normal and abnormal embryonic and fetal development; pregnancy and birth; birth control; sexual relationships, attitudes, and behavior; sexual diseases and disorders; sex and the law. Prerequisite: one year high school biology.

236—4 INTRODUCTORY HORTICULTURE. General principles of vegetable and fruit growing. Plant propagation, floriculture and ornamental plants. Three lectures, one three-hour laboratory per week.

237—4 NUTRITION. Introduction to human nutritional requirements with reference to common diets and dietary problems. The nutritional requirements of children, adults, and persons with special problems will be discussed.

244—4 STATISTICS. Insight into the basic concepts of statistics. Methods of gathering and presenting statistical data, descriptions of chance events, drawing inferences from statistical data, testing data for correlation. Designed with the needs and interests of the general student in mind. Prerequisite: GSM 144.

250—4 TECHNOLOGY AND SOCIETY. The interaction of technology and society with emphasis on: impact of technology on the social structure; whether technology is good, evil, or neutral (ethical and/or moral aspects); history of technology in relation to social development; present status in highly industrialized society, in emerging nations; technology assessment; forecasting.

300—4 THE ENERGY CRISIS AND THE ENVIRONMENT. A study of the problems and prospects of meeting the national and worldwide energy demand. The present and future roles of fossil fuel, nuclear, solar, and geothermal energy along with the environmental impact of these and other energy technologies. The scientific information necessary to acquire a critical attitude toward the controversies surrounding the energy crisis.

301—4 PHYSICS OF MUSIC AND ACOUSTICS. Nature, sources, propagation, and receptors of sound; analysis and synthesis of sound waves; objective and subjective properties of musical sounds; musical intervals; physics of musical instruments; ears and hearing; physiology and psychology of sound; sound reproduction.

302—4 THE SCIENCE OF HI-FIDELITY. An investigation of modern sound reproduction equipment with emphasis on the basic scientific principles of operation, and understanding manufacturer's specifications. Includes speakers, microphones, amplifiers, tuners, tape decks, and turntables of stereo and quadrophonic systems. Three lecture hours, two laboratory hours alternate weeks.

305—4 LIGHT AND COLOR. Nature, propagation, sources and receptors of light, spectra, pigments, dyes, and filters. The eye, sight, optical instruments, lasers, holography, potical aberrations, and illusions. Applications to art, photography, the media, and psychological phenomena.

306—4 ASTRONOMY. The solar system, nebulae, cluster, galaxies, theories of stellar evolution, and cosmology. Evening observations in addition to lecture.

365—4 HUMAN ORIGINS. A consideration of the basic principles of human evolution and an examination of the fossil record with emphasis on the most recent discoveries. Collections in the Anthropology Teaching Museum are used to familiarize students with the modern human skeleton and earlier fossil forms.

SOCIAL SCIENCES (GSS)

101—4 INTRODUCTION TO THE HISTORY OF WESTERN CIVILIZATION. Europe from the decay of Rome through the birth of the modern State; a study of religion, politics, and society in the Middle Ages, Renaissance, and Reformation.

102—4 INTRODUCTION TO THE HISTORY OF WESTERN CIVILIZATION. Europe from the Enlightenment to World War I; a study of political, social, economic and intellectual change during the 18th and 19th centuries. Topics include the Enlightenment, French Revolution and Napoleon, the Industrial Revolution and its social consequences, and international relations to World War I.

103—4 INTRODUCTION TO THE HISTORY OF WESTERN CIVILIZATION. The Western World in the twentieth century: Russian communism, Italian fascism, German national socialism, the Second World War, the Cold War, the emergence of the non-European World.

105—4 HISTORY OF BLACK AMERICA. A survey sequence to develop interest, understanding, and appreciation of black American culture and its African antecedents. Some factors leading to the current black social protest.

120—4 PUBLIC ISSUES AND POLICIES TODAY. A study of a number of current domestic issues in the United States. For each issue the following are investigated: the nature of the

problem; the status of current policy; roles played by individuals, groups, and government in shaping the policies and implementing them. Such issues as abortion, drugs, energy, environment, welfare and health, inflation and taxation are examined.

130—4 SOCIOLOGY. An introduction to the ideas of sociologists, to the way sociologists look at the world, and to such major concepts as social structure, role behavior, and social institutions. Those concepts which are part of the shared vocabulary of sociologists.

150—4 INTRODUCTION TO ECONOMICS. Introduction to economic concepts, institutions, and current issues, such as unemployment, inflation, monopoly, and taxation.

200—4 UNITED STATES HISTORY AND CONSTITUTION: 1492-1815. A general survey of the political, social, economic, and constitutional development of the United States from 1492 to 1815. Satisfies Constitution requirement.

201—4 UNITED STATES HISTORY AND CONSTITUTION: 1815-1900. A general survey of the political, social, economic, and constitutional development of the United States from 1815 to 1900. Satisfies Constitution requirement.

202—4 UNITED STATES HISTORY AND CONSTITUTION: 1900 TO PRESENT. A general survey of the political, social, economic, and constitutional development of the United States from 1900 to present. Satisfies Constitution requirement.

210—4 ANTHROPOLOGY. What does it mean to be human? How did we get to be the way we are through evolution, and where are we going? These are but a few of the questions posed in our quest to understand our past, present, and future. Anthropology introduces the student to the great diversity of human physical and cultural variation as a means to better understand ourselves. A variety of audiovisual aids, museum materials, and other resources are integrated into the course.

220—4 U.S. CONSTITUTION. An examination of the fundamental principles embodied in the United States Constitution, and the manner in which they affect and are affected by American political life. Particular attention to current political/constitutional issues. Fulfills constitutional requirement.

240—4 GEOGRAPHY FOR MODERN MAN. A general survey of selected elements of the geographic landscape of the earth. An examination of the world distribution of population, resources, and economic activities and a detailed analysis of selected geographic regions with particular emphasis on the interrelationship between man and his physical and cultural environment.

245—4 URBAN ENVIRONMENTAL PROBLEMS. Analysis and discussion of related urban environmental problems pertaining to urban development, location factors, classification, land use, recreation needs, and other up-to-date urban problems.

260—4 MODERN CHALLENGES FOR PSYCHOLOGY. A study of contributions psychologists can make to a variety of contemporary problems—mental health, behavioral control, intelligence testing, and others. Traditional human values as well as the scientific merits of given psychological methods.

261—4 PSYCHOLOGY: MAJOR IDEAS AND ISSUES. Examination of some of the major issues and ideas that are central to the study of psychology. An historical approach is used to introduce the major ideas of psychology, with an emphasis upon their relationships to developments in other disciplines.

280—4 DECISION MAKING FOR CONSUMERS. An introduction to consumer problems and measures to cope with such problems. The application of problem-solving in such areas as consumer credit, insurance, housing, and citizen-consumer responsibilities. Sources for consumer assistance and methods for initiating consumer action.

282—4 ISSUES IN FEMINISM. (See GHA 282.)

283—4 THE NATURE AND IMPACT OF SOCIAL SCIENCE. An investigation into the nature of social science and its importance for individuals and their society.

313—4 WOMEN IN CROSS-CULTURAL PERSPECTIVE. An investigation of the positions and roles of women in cultures from a variety of socio-economic levels and geographical areas of the world. Cross-cultural and other anthropological data in conjunction with the issues of feminism and the contributions anthropology can make to women's studies.

315—4 THE CULTURAL BACKGROUND OF DEVELOPING AFRICA. An introduction to the many diverse cultures of Africa from the Egyptian civilization to the Bushman hunters.

319—4 GROWTH OF OLD WORLD CIVILIZATION. Cultural origins and dispersals from paleolithic to protohistoric times with particular attention to the complex environmental and cultural factors that led to the rise of early Old World civilizations.

330—4 MARRIAGE. An examination of marriage in various societies with an emphasis on the origins, changes, and present status of dating, courtship, and marriage in the United States.

370—4 EDUCATION AS A SOCIAL INSTITUTION IN THE UNITED STATES. A critical study of education as a major social enterprise in a pluralistic society. The formative influences upon educational institutions in the United States; their basic characteristics, difficulties, and prospects are explored through the social scientific foundations of education. Designed for students irrespective of major discipline or professional pursuit; provides for a more informed and critical participation in the social institutions of this society.

388—4 COMMUNISM. A critical examination of modern

theories of communism, including those of Marx, Engels, Lenin, Stalin, and Mao. Prerequisite: junior standing.

INTERDISCIPLINARY STUDIES (GIS)

101—4 COMPUTERS AND SOCIETY. Develops rudimentary computer literacy and addresses potentials of this technology for society at large and for students as individuals. Includes an introduction to a common computing language such as BASIC. May not be taken for credit by anyone who is currently enrolled or has already completed any computer (or programming) related courses. No proficiency credit will be given.

240—4 INTRODUCTION TO MODERN LATIN AMERICA. A study of the political, economic, social, intellectual, and religious currents shaping modern Latin America. Combines perspectives from the humanities and social sciences to achieve an understanding of the past traditions and present conditions of this vital world area.

241—4 INTERCULTURAL RELATIONS. Intercultural Relations will focus on social problems, such as prejudice, stereotyping, discrimination, segregation, communication breakdowns, and tensions between racial, ethnic and other groups. Methods utilized in the analysis and alleviation of these problems will include enhancement of interpersonal communication skills, increased awareness of cultural similarities, diversities and shared learning experiences.

242—4 PEOPLE AND CULTURE OF THE EAST. Introduction to the culture of selected East Asian nations, e.g., China, Japan, Korea and Vietnam. Key organization principles, religious and philosophical norms, social customs, and aesthetic tastes are examined to illustrate characteristic themes in traditional thought and practice, and modern East Asia is examined to illustrate continuity and transformation of these themes.

260—4 GLOBAL PROBLEMS AND HUMAN SURVIVAL. A team taught interdisciplinary course addressed to the issue of the survival of the human race in the face of complex interrelated global problems such as war, underdevelopment, population, pollution, resource-depletion, and misuse of the ocean.

280—4 SONG AND POETRY: FROM BYRD TO THE BEATLES. A non-technical survey of the creative relationship between the composer and the poet, with emphasis on examples taken from Renaissance court music, the folk song, the art song, oratorio, opera, and contemporary serious and popular songs. Considerable class listening and discussion.

321—4 THE ORIGINS OF LIFE. A study of the scientific finds and traditional concepts related to the origin of life.

340—4 THE PROBLEM OF WAR AND PEACE. A consideration of the problem of war and ways of securing peace, drawing information from various disciplines including anthropology, economics, government, history, philosophy, psychology, and sociology.

341—4 THE EUROPEAN IMMIGRANT IN AMERICA. An interdisciplinary (American History and American Literature) examination of the impact of immigrant groups on American social, political, and cultural patterns. Subjects to be considered will be assimilation, stereotyping, generational conflict, and nativism.

342—4 DEATH AND DYING. An interdisciplinary analysis of the problem of death and dying. Considers topics such as conceptions of death and dying, cultural and social/psychological aspects of death and dying, suicide, immortality, and euthanasia.

350—4 WOMEN IN SOCIAL INSTITUTIONS: A COMPARATIVE APPROACH. Comparative study of women in social institutions including investigation of historical, cultural and social class differences. Areas to be addressed include women in the economy, education of women, women in the family context, women and health care, women in religion, in education and in politics.

HUMAN SERVICES

101—4 INTRODUCTION TO HUMAN SERVICES: HELPING RELATIONSHIPS. An introduction to the general field of human services. A review of the philosophical basis of the helping relationships as interpreted by the social and behavioral sciences. Prerequisite: consent of adviser.

301—4 COMMUNICATIONS IN HUMAN SERVICES. A review and critical examination of verbal and nonverbal and symbolic communication as related to human services via lecture, class discussion, audio-visual aids, and various communication exercises. Prerequisite: consent of adviser.

302—4 PROBLEMS IN HUMAN SERVICES. A survey and analysis of selected problem areas which relate to the field of human services (e.g., racism, criminal justice, mental health, women's rights). An integration of small group approaches and lecturing for the purpose of identifying and analyzing problems and planning strategies for change. Prerequisite: consent of adviser.

310—4 HUMAN SERVICE SYSTEMS: AN APPROACH TO THE FIELD. A critical examination of the administrative and organizational dimensions of human services. Prerequisite: consent of adviser.

311—4 HUMAN SERVICE SYSTEMS: AN INDIVIDUAL ANALYSIS. An in-depth exploration of one of the human services systems (e.g., criminal justice, mental health, etc.) and identification of subsystems and how they interface. The purpose is to demonstrate the utility of the systems approach. Prerequisite: consent of adviser.

312—4 FIELD STUDY IN HUMAN SERVICES. Brief placement of students in human service agencies and organizations. Involves a weekly seminar to compare, contrast, and examine

the interrelatedness of these agencies. Prerequisite: consent of adviser.

320—4 BASIC RESEARCH METHODS IN HUMAN SERVICES. An introduction to the research process and the scientific method. Hypothesis development and testing, methods of data collection, and selected methods of data analysis. Emphasis on an applied research in human services settings. Prerequisite: consent of adviser.

330—4 LEGAL ASPECTS OF HUMAN SERVICES. An examination of legal concepts and issues as they relate to the Human Services practitioner (e.g., equal protection, due process, right of privacy and confidentiality). Time is also devoted to teaching the student the fundamentals of legal research as well as how he or she can best effectuate his or her role in court proceedings. Prerequisites: 24 hours in Human Services; consent of adviser.

401a,b,c—12 (4,4,4) PRACTICUM IN HUMAN SERVICES. Student placement in a human service agency or organization with intensive supervision by an individual faculty member as well as agency representative. It is anticipated that students will be able to gain practical experience and apply their academic knowledge during practicum. Practicum provides each student with the opportunity to utilize the kinds of skills acquired in the total program. Practicum projects are based on the specific career interests of each student and are supervised by the staff member closest to that interest area. Research, field placement, and a practicum report are required. Students are encouraged to take the practicum courses during their senior year. NOT FOR GRADUATE CREDIT.

402—1 to 4 SEMINAR: SELECTED TOPICS. Seminar discussions devoted to Human Service Systems. Content varies depending upon the interest of the students and faculty. May be repeated to a maximum of eight hours so long as no topic is repeated. Prerequisite: consent of adviser and instructor.

404—4 VOLUNTEER PROGRAMS IN JUVENILE COURT SETTINGS. An evaluation of the economic, judicial, and social issues leading to the Volunteer Probation Movement. Techniques for organization and assessment of community-based volunteer programs related to youth corrections. The purpose of the course is to acquaint students with the historical development, the purpose, structure, function, operation, and procedures for the implementation of volunteer programs for dealing with youthful offenders in trouble with the law. Prerequisite: consent of instructor.

405—4 THE ETIOLOGY OF JUVENILE DELINQUENCY. An in-depth survey of various factors which have been proposed as having a causative relationship to juvenile crime. A variety of theoretical positions regarding delinquency are critically examined and evaluated in light of relevant research in the area. Acquaintance with the wide variety of delinquency causes which have been proposed and critical appraisal of a number of the more important theoretical positions. Prerequisite: consent of adviser.

408—4 TREATMENT MODALITIES IN CORRECTIONS. A survey of the treatment modalities currently being applied in the human services. Prerequisite: consent of adviser.

409—4 COMMUNITY BASED PROGRAMS: CORRECTIONS IN THE COMMUNITY. Presentation of the rationale for community-based programming for the offender and exploration of existing and potential programs. Focus on group care homes, half-way houses, foster care, expanded use of probation, youth service bureaus, youth hostels, and other community-based programs directed toward the juvenile and adult offender. Prerequisite: consent of adviser.

411—4 SURVEY OF ADVANCED TREATMENT MODELS IN HUMAN SERVICES. An indepth survey of treatment and growth models currently being applied in a variety of human service settings. This course is a continuation and expansion of 408. This course is designed to help students understand the various treatment models, and is not intended to teach students how to perform the various psychotherapeutic techniques. Prerequisites: 101, 408, consent of adviser.

420—4 PROGRAM EVALUATION IN HUMAN SERVICES. The principles and practice of program evaluation in human service settings is presented. The evaluation process relevant to the major evaluation models of behavioral objectives, decision making, professional review and case study are described. Students conduct and present an evalution study. Prerequisites: 320 and consent of adviser.

490—1 to 12 INDEPENDENT PROJECTS IN THE HUMAN SERVICES. Independent projects in human services. Prerequisites: consent of adviser and instructor, senior status.

491—1 to 8 DIRECTED READINGS IN THE HUMAN SERVICES. Directed readings in human services. Prerequisites: consent of adviser and instructor, senior status.

492—1 to 12 INDEPENDENT RESEARCH IN HUMAN SERVICES. The design and implementation of a research project with the consultation of a faculty member. Prerequisites: 320, consent of adviser and instructor, senior status.

SCHOOL OF HUMANITIES

AMERICAN STUDIES

300—4 THE WOMAN IN AMERICAN FOLKLORE. A study and analysis of the image of the woman as revealed in the oral traditions and customary examples of American folklore and folklife; types, motifs, and folk texts are examined through actual student fieldwork.

480—4 POPULAR LITERATURE IN AMERICA. A study of literary media, genre, and works not generally considered in literature courses or other courses but which are representative of popular tastes, or have helped form popular taste and hence American character.

490—4 SEMINAR IN AMERICAN STUDIES. A study of American culture with a view towards crossing the boundaries of traditional disciplines. Prerequisite: senior standing or consent of instructor.

498—4 FOLKLORE RESEARCH METHODS. A study of the methods of collecting, classifying, recording, archiving, and comparing verbal folklore (e.g., tales, speech), partly-verbal folklore (e.g., superstitions, folk games) and non-verbal lore (e.g., gestures, material culture, arts) with application to specific fieldwork. Prerequisite: consent of instructor.

ENGLISH

100—1 COMPOSITION LAB. Individualized instruction in composition skills, using the facilities of the Communication Laboratory. May be repeated for total of 2 hours credit, e.g., concurrently with both GSK 101 and GSK 102. Pass/No Credit only. Not counted toward major or minor in English.

105—1 ENGLISH GRAMMAR REVIEW. A review of traditional grammar with emphasis on the three basic sentence types — simple, compound, and complex — using primarily three sentence parts: subjects, verbs, and conjunctions. Sentence writing and sentence combining exercises. Particularly useful for secretaries, advertising copy writers, students of foreign languages, aspiring creative writers, and students who want to understand the structure of their native language.

106—1 CONTEMPORARY VOCABULARY. English vocabulary development through studying action words (verbs) and descriptive words (adjectives); synonyms and antonyms; words from names in mythology, history and literature; borrowed words; and words from contemporary social movements.

107—1 CONTEMPORARY AUTHORS. For students who want to read contemporary and popular literature with both pleasure and understanding, this course applies traditional techniques (analysis of theme and plot, symbol and metaphor) to popular works of the last decade.

108—1 POETICS: INTRODUCTION TO POETRY APPRECIATION. Through reading several poems the student learns various terms, forms, styles of poetry and sees the relation between poetic expression and various facets of human experience.

201—4 INTERMEDIATE COMPOSITION. A course in English composition for students in all disciplines who have completed GSK 101 and GSK 102 or their equivalents. Development of expository themes, including analysis of audience, choice of rhetorical strategies, organization of materials. Emphasizes clear and direct writing and logical organization of information without grammatical and mechanical error. Prerequisites: GSK 101 and GSK 102 or equivalent.

301—4 BASIC LITERARY CRITICISM AND SCHOLARSHIP. An introduction to critical terminology, practice in criticism, discussion of literary theories. Practical application of elementary research methods.

302—12 (4,4,4) SURVEY OF ENGLISH LITERATURE. (a) Beginnings to 1660, excluding Milton, (b) 1660-1830, including Milton, (c) 1830 to present. May be taken in any sequence, but chronological sequence is recommended.

309—8 (4,4) SURVEY OF AMERICAN LITERATURE. (a) To 1860, (b) since 1860. May be taken in either sequence.

325—4 TECHNICAL WRITING. Designed for students in engineering and the sciences. Principles of technical writing with emphasis on organization, style, grammar, and usage. Practice in writing technical reports, instruction, outlines, and summaries. Special instruction in library procedure and writing the annotated library research paper. Prerequisites: GSK 101 and GSK 102.

340—4 LITERATURE OF THE THIRD WORLD. Reading and discussion of the literary works of selected writers from Third World countries from antiquity to the present. An analysis of the social, political, historical, philosophical, and literary problems.

341—4 THE BLACK WOMAN IN AMERICAN LITERATURE. A study of poems, novels, short stories, essays, dramas, biographies and appropriate historical documents, portraying roles of black women in America.

342—8 (4,4) BLACK LITERATURE OF AMERICA. (b) Black American Fiction. Representative major black fiction in terms of ideas, values, techniques; (c) Black American Drama. Survey of twentieth century black drama.

369—4 GRAMMAR FOR TEACHERS. For those who will teach grammar in elementary, middle, or secondary schools. The grammar taught in the course will cover the content of texts which are currently used in the schools. The uses of grammatical analysis in teaching formal spoken and written usage will be demonstrated and practiced. Projects with actual school texts will be included in the course requirements. Prerequisite: junior standing or consent of instructor.

370—4 FUNDAMENTALS OF THE ENGLISH LANGUAGE: SOUND PATTERNS AND WORD CONSTRUCTION. The production of English sounds and word formations. Dialectal variations. The relationship of sounds to the spelling system. Recommended for language, speech, reading, education concentrations, and all foreign students. Prerequisite: junior standing or consent of instructor.

371—4 PRINCIPLES OF ENGLISH SYNTAX. A study of word relationships in English. Recommended for language, speech, reading, and education concentrations as well as English concentrations and linguistics minors. Prerequisites: GSK 101, GSK 102; junior standing or consent of instructor.

392—4 FICTION WRITING. Emphasis on the writing of short stories together with a study of plot, point of view, description, dialogue, and other elements in the rhetoric of fiction. Class conducted as a workshop devoted to discussion and evaluation

of student manuscripts. Prerequisite: completion of GSK 101 or GSK 102 and sophomore standing.

393—4 POETRY WRITING. Major emphasis on the writing of poetry, but with study of the fundamentals of poetry, including prosody, figurative language, symbolism, and theories of poetry. Readings in poetry. In-class critiques of student writing by students and instructor to develop objective analysis as means of improvement. Prerequisites: completion of GSK 101 or GSK 102 and sophomore standing.

400—4 A SURVEY OF LINGUISTIC THEORIES AND CONCEPTS. (See Anthropology 401.) A survey of linguistic concepts and theories. Recommended for anthropology students, linguistic students, and for those preparing to teach English. Prerequisite: junior standing.

402—4 LINGUISTICS AND LITERATURE. An examination of the ways in which linguistic analysis can illuminate a literary text. Open to interested students in any discipline. Prerequisite: junior standing or consent of instructor.

403—4 THE HISTORY OF THE ENGLISH LANGUAGE. A survey of the development of the language from Indo-European to modern English with special emphasis on Middle and Early Modern English changes. Prerequisite: junior standing or consent of instructor.

404—4 CHAUCER: CANTERBURY TALES. Several of Chaucer's *Canterbury Tales* will be read in Middle English. Prerequisite: junior standing.

405—8 (4,4) METHODS AND THEORIES OF LANGUAGE ANALYSIS. (a) Procedures for identifying, describing, and constructing models of the smallest units in a linguistic system. Discussions of the relations between phonic, phonemic, and feature analysis concepts as currently formulated. Construction of an actual model of a grammar as limited by evidence in tape recordings of American English. (b) Procedures for identifying language units as large as or larger than a word. The usefulness of slot and filler, distributional, immediate constituent, and transformationalgenerative models is tested in their applicability to the structure of spoken and written English statements. May be taken independently. Prerequisite: junior standing.

406—4 OLD ENGLISH GRAMMAR. Introduction to Old English grammar and readings. Prerequisite: junior standing or consent of instructor.

407—4 (INTERMEDIATE) READINGS IN OLD ENGLISH. Intermediate level readings in Old English. Prerequisite: 406 or consent of instructor.

410—4 RESEARCH REPORT WRITING. Fundamentals of preparing a thesis, major paper, or research report. Introduction to the use of research tools, methods of information gathering, analysis and classification of material. Stress on clarity of style and organization. Not applicable to requirements for the B.A. or M.A. in English. Prerequisite: junior standing.

413—4 SPENSER. Reading and analysis of *The Faerie Queene, Amoretti,* and other major poems. Prerequisite: junior standing.

418—4 APPLIED SEMANTICS. Applications of theories of verbal meaning to the interpretation of actual texts. Prerequisite: junior standing.

421—4 POETRY AND PROSE OF THE MEDIEVAL PERIOD. Middle English Literature excluding Chaucer. Prerequisite: junior standing.

422—4 POETRY AND PROSE OF THE RENAISSANCE. Poetry and Prose of the English Renaissance: Sidney through Spencer. Prerequisite: junior standing.

423—4 POETRY AND PROSE OF THE 17TH CENTURY. 17th Century. Prerequisite: junior standing.

424—4 POETRY AND PROSE OF THE AUGUSTAN AGE. Poetry and Prose of the Augustan Age: Dryden through Pope. Prerequisite: junior standing.

425—4 POETRY AND PROSE OF THE AGE OF JOHNSON. Poetry and Prose of the Age of Johnson. Prerequisite: junior standing.

426—4 POETRY AND PROSE OF THE ROMANTIC PERIOD. Poetry and Prose of Blake, Wordsworth, Coleridge, Byron, Shelley and Keats. Prose of Lamb, Landor, Hazlitt and DeQuincey: criticism, essays, journals, and letters.

427—4 POETRY AND PROSE OF THE VICTORIAN ERA. Victorian poets — Tennyson, Browning, Arnold, and the Pre-Raphaelites; and prose writers excluding novelists. Prerequisite: junior standing.

428—4 BRITISH POETRY AND PROSE OF THE MODERN ERA. Modern British poets and prose writers excluding novelists. Prerequisite: junior standing.

430—4 AMERICAN HUMOR AND SATIRE. A consideration of the writers and forms of 19th and 20th century humor. Prerequisite: junior standing.

431—4 MAJOR AMERICAN WRITERS: 1800-1865. Significant writers of short fiction and nonfictional prose from 1800 to 1865. Prerequisite: junior standing.

432—4 MAJOR AMERICAN WRITERS: 1865-1918. Significant writers of short fiction and nonfictional prose from 1865 to 1918. Prerequisite: junior standing.

433—4 MAJOR AMERICAN WRITERS: 1918-Present. Significant writers of short fiction and nonfictional prose from 1918 to the present. Prerequisite: junior standing.

434—4 AMERICAN POETRY TO 1900. Trends in American

poetry to 1900 with a critical analysis of the achievement of the important poets. Prerequisite: junior standing.

435—4 AMERICAN POETRY SINCE 1900. The important poets since 1900. Prerequisite: junior standing.

436—4 AMERICAN DRAMA — BEGINNING TO WORLD WARI. The beginnings of American drama to World Warl. Prerequisite: junior standing.

437—4 MODERN AMERICAN DRAMA. Modern American drama. Prerequisite: junior standing.

438—4 INTELLECTUAL BACKGROUNDS OF AMERICAN LITERATURE. The relationship of basic ideas in America to American literature. Prerequisite: 309a or 309b.

439—4 AMERICAN NOVEL TO EARLY 20TH CENTURY. The novel in America from its beginnings to the early 20th century. Prerequisite: junior standing.

440—4 AMERICAN NOVEL FROM EARLY 20TH CENTURY TO PRESENT. Trends and techniques in the American novel from the early 20th Century to the present. Prerequisite: junior standing.

454—4 18TH CENTURY NOVEL. 18th Century Novel: Defoe through Jane Austen. Prerequisite: junior standing.

455—4 VICTORIAN NOVEL. Victorian Novel: 1830-1900. Prerequisite: junior standing.

456—4 20TH CENTURY NOVEL. The English Novel in the 20th Century. Prerequisite: junior standing.

460—4 ELIZABETHAN AND JACOBEAN DRAMA. From the beginning of the drama in the early Elizabethan period to its flowering under such writers as Marlowe, Jonson, Peele, Green, Kyd, Lyle, Beaumont, Chapman, Fletcher, Greene, and Webster, excluding Shakespeare, until the close of the theaters in 1642. Prerequisite: junior standing.

461—4 RESTORATION AND 18TH CENTURY DRAMA. Restoration and 18th Century drama: after 1660, representative types of plays from Dryden to Sheridan. Prerequisite: junior standing.

462—4 MODERN BRITISH AND CONTINENTAL DRAMA. Modern British Drama and Continental Drama of Europe since 1870. Prerequisite: junior standing.

471—8 (4,4) SHAKESPEARE. (a) Comedies and histories, (b) tragedies and nondramatic works. May be taken separately.

473—4 MILTON.

475—4 MODERN ADOLESCENT LITERATURE. Extensive and critical reading of modern literature (primarily fiction) that young people between the ages of 11 and 17 are reading, particularly that literature which they are reading out of choice and not from compulsion. Secondly, an attempt to assess this age group as an audience so that, finally, practical teaching approaches can be created to enhance the reading enjoyment of this group. Prerequisite: junior standing.

485—4 PROBLEMS IN THE TEACHING OF ENGLISH. Aims, methods, materials, tests, and programs of English instruction in the high school, including supervised practicum integrated with the other aspects of the course. A tutorial course normally taken concurrently with Secondary Education 401a, b, or prior to Secondary Education 352. Prerequisite: consent of instructor.

488a—4 METHODS OF TEACHING ENGLISH AS A SECOND LANGUAGE. Classroom techniques. Prerequisite: junior standing.

488b—4 TEACHING ENGLISH AS A SECOND LANGUAGE. Laboratory methods. Prerequisite: junior standing.

490—4 ADVANCED COMPOSITION. Expository writing. May be repeated once for credit with permission. Prerequisite: junior standing.

492—4 ADVANCED FICTION WRITING. Emphasis on the writing of fiction that strives for literary excellence. Classroom conducted as a workshop, devoted to discussion and evaluation of student manuscripts. Readings in fiction; problems of fiction examined in the work of established writers. Prerequisites: completion of GSK 101 or GSK 102 and sophomore standing.

493—4 ADVANCED POETRY WRITING. Major emphasis on the writing of poetry. In-class critiques of student writing by instructor and fellow students to develop objective analysis as means of improvement. Prerequisites: completion of GSK 101 or GSK 102 and sophomore standing.

494—4 LITERARY EDITING. An introduction to the basic principles of literary editing with special emphasis on fiction and poetry. Prerequisites: GSK 101 and GSK 102; junior standing or consent of instructor.

495—4 HISTORY OF CRITICAL THEORY. Historical survey of major critical theories from Plato to the present, including practice in writing criticism. Prerequisite: junior standing or consent of instructor.

498—4 TUTORIAL IN CREATIVE WRITING. Only undergraduates may repeat and for only a total of 8 hours credit. Prerequisites: GSK 101, GSK 102, and consent of instructor.

499—2 to 4 READINGS IN ENGLISH. For English students only. Departmental undergraduate adviser's approval required. May be repeated to maximum of 6 hours.

FOREIGN LANGUAGES

The student who has completed one year of foreign language in high school begins with the first quarter of the first year course. The student who has completed two years of high school foreign language begins with the intermediate course.

Proficiency examinations may be taken for credit.

GENERAL FOREIGN LANGUAGE

390—2 to 6 READINGS. Readings in selected works of representative writers in the student's special field of interest. Offered in French, Spanish, German, Russian, Italian, Latin, and Greek. Primarily for students with no foreign language concentration, but may be taken for credit in foreign language concentration with consent of faculty chairperson. Prerequisites: 203, consent of department chairperson.

401—4 COMPARATIVE LATIN AND GREEK GRAMMAR. A survey of the structural similarities and differences between Latin and Greek as they developed from Primitive Indo-European and as they relate with other Indo-European languages. Prerequisites: Latin, Greek, English 401, or consent of instructor.

486—4 MATERIALS AND METHODS FOR TEACHING FOREIGN LANGUAGES. Application of language learning principles to classroom procedures at different levels. Theory and practice of the audio-lingual approach, the language lab, applied linguistics. Required for all majors intending to teach foreign languages. Prerequisite: one quarter of any 300-level course, or consent of department chairperson.

491—2 to 8 CULTURAL AND LANGUAGE WORKSHOP. Fills the need for practical studies in areas such as comparative or contrastive linguistics, advanced methodology and techniques in foreign languages, preparation for career oriented programs, in-depth study of foreign cultures, travel-study abroad, applied language study, and supervised projects in foreign studies. Prerequisite: advanced standing or graduate standing.

FRENCH

101—4 ELEMENTARY FRENCH. Open to students who have had no previous work in French.

102—4 ELEMENTARY FRENCH. Continuation of 101. Prerequisite: 101.

103—4 ELEMENTARY FRENCH. Continuation of 102. Prerequisite: 102.

123—12 ELEMENTARY FRENCH. An intensive course, generally taught in the summer term, combining credit which would be earned in 101, 102, and 103 if they were taken separately. Must be taken for the full 12 hours credit. Please check with Department Chairperson to determine if the course will be offered.

201—4 INTERMEDIATE FRENCH. Development of comprehension of the spoken language and oral expression, reading of modern prose selections, simple composition. Prerequisite: 103 or two years of high school French or consent of department chairperson.

202—4 INTERMEDIATE FRENCH. Continuation of 201. Prerequisite: 201.

203—4 INTERMEDIATE FRENCH. Continuation of 202. Prerequisite: 202.

301—4 ADVANCED FRENCH GRAMMAR. A study of grammatical problems on an advanced level, development of correct usage, and vocabulary building in the French language. Prerequisite: equivalent of two years of college French or consent of department chairperson.

302—4 ADVANCED FRENCH CONVERSATION. Oral work of a practical nature for advanced students. Prerequisite: 203 or consent of department chairperson.

303—4 ADVANCED FRENCH COMPOSITION. Practical composition for advanced students. Prerequisite: 203 or consent of department chairperson.

304—4 INTERPRETATION. Oral translation of selected passages, alternating between English and French, to teach students to express themselves with precision and clarity in both languages. Prerequisite: 203 or consent of department chairperson.

305—4 TRANSLATION. Written translation of selected passages, alternating between English and French, to teach students to write with precision and clarity in both languages. Prerequisite: 203 or consent of department chairperson.

308—4 FRENCH PHONETICS. Articulatory phonetics as a means to form native French pronunciation habits with emphasis upon the difficulties encountered by speakers of American English. Prerequisite: 203.

311—4 CONTEMPORARY FRANCE. Study of significant aspects of French culture. Prerequisite: 250c or consent of department chairperson.

351—4 SURVEY OF FRENCH LITERATURE (MIDDLE AGES THROUGH RENAISSANCE). Survey of French Literature from the 11th through the 16th Centuries. Prerequisite: 203 or consent of department chairperson.

352—4 SURVEY OF FRENCH LITERATURE (CLASSICISM THROUGH ENLIGHTMENT). Survey of French literature of the 17th and 18th Centuries. Prerequisite: 203 or consent of department chairperson.

353—4 SURVEY OF FRENCH LITERATURE (ROMANTICISM TO PRESENT). Survey of French Literature of the 19th

and 20th Centuries. Prerequisite: 203 or consent of department chairperson.

402—4 BUSINESS FRENCH. Reinforcement of fundamental sentence structure and study of necessary advanced grammar for adequate oral and written expression in relation to business needs, specialized terminology and idioms. NOT FOR GRADUATE CREDIT. Prerequisite: 203 or consent of department chairperson.

451—4 STUDIES IN FRENCH LITERATURE (FROM THE MIDDLE AGES THROUGH THE RENAISSANCE). Studies in selected topic(s) in French literature from the beginnings through the 16th Century. NOT FOR GRADUATE CREDIT. Prerequisite: 203 or consent of department chairperson.

452—4 STUDIES IN FRENCH LITERATURE (CLASSICISM THROUGH ENLIGHTMENT). Studies in selected topic(s) in French literature from the 17th and 18th Centuries. NOT FOR GRADUATE CREDIT. Prerequisite: 203 or consent of department chairperson.

453—4 STUDIES IN FRENCH LITERATURE (ROMANTICISM TO THE PRESENT). Studies in selected topic(s) in French literature from the 19th and 20th Centuries. NOT FOR GRADUATE CREDIT. Prerequisite: 203 or consent of department chairperson.

454—2 SEMINAR. Integration of the specialized major courses and the development of a comprehensive view of the major field in terms of its relationship to the growth of Western civilization. May be repeated to a maximum of six hours so long as no topic is repeated.

457—4 FRENCH DRAMA IN THEORY AND PRACTICE. The history and development of French drama including analysis of major and typical works, practice in direction and interpretation with emphasis on oral expression. Prerequisite: 203 or consent of department chairperson.

458—4 FRENCH DRAMA IN THEORY AND PRACTICE. (See 457.) Prerequisite: 457.

499—2 to 9 READINGS IN FRENCH. Readings in selected areas of French language, literature, culture, and civilization. Individual work or small groups under direct supervision of one or more members of the foreign language faculty. Prerequisites: 203, consent of department chairperson.

GERMAN

101—4 ELEMENTARY GERMAN. Open to students who have had no previous work in German.

102—4 ELEMENTARY GERMAN. Continuation of 101. Prerequisite: 101.

103—4 ELEMENTARY GERMAN. Continuation of 102. Prerequisite: 102.

126—12 ELEMENTARY GERMAN. An intensive course, generally taught in the summer term, combining credit which would be earned in 101, 102, and 103 if they were taken separately. Must be taken for the full 12 hours credit. Please check with Department Chairperson to determine if the course will be offered.

201—4 INTERMEDIATE GERMAN. Development of comprehension of the spoken language and oral expression, reading or modern prose selections, simple composition. Prerequisite: 103 or two years of high school German or consent of department chairperson.

202—4 INTERMEDIATE GERMAN. Continuation of 201. Prerequisite: 201.

203—4 INTERMEDIATE GERMAN. Continuation of 202. Prerequisite: 202.

301—4 GERMAN GRAMMAR AND PHONETICS. A study of grammatical and phonetic problems in German, development of correct usage and pronunciation. Prerequisite: equivalent of two years of college German or consent of department chairperson.

302—4 GERMAN CONVERSATION. Oral work of a practical nature for advanced students. Prerequisite: 203 or consent of department chairperson.

303—4 GERMAN COMPOSITION. Practical composition for advanced students. Prerequisite: 203 or consent of department chairperson.

304—4 GERMAN PROFESSIONAL READINGS. Selections of publications related to the professions and concerns in contemporary Germany. Prerequisite: 203 or consent of department chairperson.

305—4 TECHNICAL GERMAN. Contrastive analysis applied to technical German. Prerequisite: 203 or consent of department chairperson.

311—4 GERMAN CULTURE. Study of significant aspects of German culture. Prerequisite: 203 or consent of department chairperson.

351—4 SURVEY OF GERMAN LITERATURE (MIDDLE AGES TO 1750). Survey of German literature from the Middle Ages to 1750. Prerequisite: 203 or consent of department chairperson.

352—4 SURVEY OF GERMAN LITERATURE (1750 THROUGH NINETEENTH CENTURY). Survey of German literature from 1750 through the Nineteenth Century. Prerequisite: 203 or consent of department chairperson.

353—4 SURVEY OF GERMAN LITERATURE (TWENTIETH CENTURY). Survey of German literature of the Twentieth

Century. Prerequisite: 203 or consent of department chairperson.

401—4 DEVELOPMENT OF GERMAN STRUCTURE. An introduction to the historical development of the German language with emphasis on how modern German sounds, words, and grammar came into being in the standard and main dialects. NOT FOR GRADUATE CREDIT. Prerequisite: 203 or consent of department chairperson.

402—4 BUSINESS GERMAN. Exercises in business correspondence emphasizing the acquisition of contemporary business vocabulary and idiomatic structures. A study of the cultural background of German business and publicity. NOT FOR GRADUATE CREDIT. Prerequisite: 203 or consent of department chairperson.

411—4 GERMAN CIVILIZATION. Intensive study of the German speaking areas of the world with emphasis on the anthropological and sociological aspects of their respective cultures (Austrian, German, Swiss, "Reichsdeutsch," etc.), lectures, reports. Prerequisite: senior standing in German language.

452—4 FAUST. Analysis of both parts of Goethe's masterpiece, its background, meaning, and impact on world literature together with a general survey of the life and times of the author. Prerequisite: 203 or consent of department chairperson.

453—4 SEMINAR IN GERMAN LITERATURE. Study of selected German literary masterpieces. NOT FOR GRADUATE CREDIT. Prerequisite: 203 or consent of department chairperson.

454—2 SEMINAR. Integration of the specialized major courses and the development of a comprehensive view of the major field in terms of its relationship to the growth of Western civilization. May be repeated to a maximum of 6 hours so long as no topic is repeated.

499—2 to 9 READINGS IN GERMAN. Readings in selected areas of German language, literature, culture, and civilization. Individual work or small groups under direct supervision of one or more members of the foreign language faculty. Prerequisites: 203, consent of department chairperson.

GREEK

101—4 INTRODUCTION TO GREEK. Open to students with no previous work in Greek.

102—4 INTRODUCTION TO GREEK. Continuation of 101. Prerequisite: 101.

103—4 INTRODUCTION TO GREEK. Continuation of 102. Prerequisite: 102.

201—4 INTERMEDIATE GREEK. Development of reading facility. Reading of selected masterpieces in history, poetry, and philosophy. Prerequisite: 103 or equivalent.

202—4 INTERMEDIATE GREEK. (See 201). Prerequisite: 103 or equivalent.

203—4 INTERMEDIATE GREEK. (See 202). Prerequisite: 103 or equivalent.

250—12 (4,4,4) INTERMEDIATE GREEK. Development of reading facility. Reading of selected masterpieces in history, poetry, and philosophy. May be taken out of sequence. Prerequisite: 103 or equivalent.

499—24 (4,4,4,4,4,4) READINGS IN ANCIENT GREEK. (a) Selected readings designed to develop basic lexical and structural competence. (b) Continuation of a. (c) Study of a selected masterpiece of Greek literature. (d) Masterpieces in 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: one year of college study of another language, or the equivalent, or consent of instructor.

ITALIAN

101—4 ELEMENTARY ITALIAN. Open to students who have had no previous work in Italian.

102—4 ELEMENTARY ITALIAN. Continuation of 101. Prerequisite: 101.

103—4 ELEMENTARY ITALIAN. Continuation of 102. Prerequisite: 102.

144—12 ELEMENTARY ITALIAN. An intensive course, generally taught in the summer term, combining credit which would be earned in 101, 102, and 103 if they were taken separately. Must be taken for the full 12 hours credit. Please check with Department Chairperson to determine if the course will be offered.

201—4 INTERMEDIATE ITALIAN. Development of comprehension of the spoken language and oral expression, reading of modern prose selections, simple composition. Prerequisite: 103 or two years of high school Italian or consent of department chairperson.

202—4 INTERMEDIATE ITALIAN. Continuation of 201. Prerequisite: 201.

203—4 INTERMEDIATE ITALIAN. Continuation of 202. Prerequisite: 202.

311—4 ITALIAN CULTURE AND CIVILIZATION. Study of significant aspects of Italian culture in a historical perspective. Designed to improve intercultural understanding and to con-

tinue the development of all language skills. Prerequisite: 203 or consent of department chairperson.

499—2 to 9 READINGS IN ITALIAN. Readings in selected areas of Italian language, literature, culture, and civilization. Individual work or small groups under direct supervision of one or more members of the foreign language faculty. Prerequisites: 203, consent of department chairperson.

LATIN

101—4 INTRODUCTION TO LATIN. Open to students with no previous work in Latin.

102—4 INTRODUCTION TO LATIN. Continuation of 101. Prerequisite: 101.

103—4 INTRODUCTION TO LATIN. Continuation of 102. Prerequisite: 102.

201—4 INTERMEDIATE LATIN. Basic principles of the Latin language taught through reading selections from classical, medieval, and renaissance Latin. Prerequisite: 103 or equivalent.

202—4 INTERMEDIATE LATIN. Prerequisite: 103 or equivalent.

203—4 INTERMEDIATE LATIN. Prerequisite: 103 or equivalent.

499—24 (4,4,4,4,4,4) READINGS IN LATIN. (a) Basic principles of the Latin language taught through reading selections from classical, medieval, and renaissance Latin. (b) Continuation of a. (c) Continuation of b. (d), (e), (f) The second-year level. Content varies with instructor. 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: one year college study of another language, or the equivalent, or consent of instructor.

RUSSIAN

101—4 ELEMENTARY RUSSIAN. No previous knowledge of Russian required.

102—4 ELEMENTARY RUSSIAN. Continuation of 101. Prerequisite: 101.

103—4 ELEMENTARY RUSSIAN. Continuation of 102. Prerequisite: 102.

136—12 ELEMENTARY RUSSIAN. An intensive course, generally taught in the summer term, combining credit which would be earned in 101, 102, and 103 if they were taken separately. Must be taken for the full 12 hours credit. Please check with Department Chairperson to determine if the course will be offered.

201—4 INTERMEDIATE RUSSIAN. Development of comprehension of the spoken language and oral expression, reading of modern prose selections, simple composition. Prerequisite: 103 or two years of high school Russian or consent of department chairperson.

202—4 INTERMEDIATE RUSSIAN. Continuation of 201. Prerequisite: 201.

203—4 INTERMEDIATE RUSSIAN. Continuation of 202. Prerequisite: 202.

499—2 to 9 READINGS IN RUSSIAN. Readings in selected areas of Russian language, literature, culture, and civilization. Individual work or small groups under direct supervision of one or more members of the foreign language faculty. Prerequisites: 203, consent of department chairperson.

SPANISH

101—4 ELEMENTARY SPANISH. Open to students who have had no previous work in Spanish.

102—4 ELEMENTARY SPANISH. Continuation of 101. Prerequisite: 101.

103—4 ELEMENTARY SPANISH. Continuation of 102. Prerequisite: 102.

140—12 ELEMENTARY SPANISH. An intensive course, generally taught in the summer term, combining credit which would be earned in 101, 102, and 103 if they were taken separately. Must be taken for the full 12 hours credit. Please check with Department Chairperson to determine if the course will be offered.

201—4 INTERMEDIATE SPANISH. Development of the spoken language and oral expression, reading of modern prose selections, simple composition. Prerequisite: 103 or two years of high school Spanish or consent of department chairperson.

202—4 INTERMEDIATE SPANISH. Continuation of 201. Prerequisite: 201.

203—4 INTERMEDIATE SPANISH. Continuation of 202. Prerequisite: 202.

301—4 ADVANCED SPANISH GRAMMAR. A study of grammatical problems on an advanced level, development of correct usage, and vocabulary building in the Spanish language. Prerequisite: equivalent of two years college Spanish or consent of faculty chairperson.

302—4 ADVANCED CONVERSATIONAL SPANISH. Oral work of a practical nature for advanced students. Prerequisite: 203 or consent of department chairperson.

303—4 ADVANCED SPANISH COMPOSITION. Practical

composition for advanced students. Prerequisite: 203 or consent of department chairperson.

305—4 WRITTEN INTERPRETATION. Contrastive analysis applied to written interpretation. Prerequisite: 203 or consent of department chairperson.

306—4 CONTEMPORARY SPANISH PROFESSIONAL READINGS. Selections of publications related to the professions and concerns in contemporary Hispanic world. Prerequisite: 203 or consent of department chairperson.

307—4 BUSINESS SPANISH. Rapid grammar review, daily writing practice in all types of commercial communications, and guided writing of the different forms of business documents in Spanish. Prerequisite: 203 or consent of department chairperson.

311—4 CONTEMPORARY SPAIN. Study of significant aspects of Spanish culture. Major credit will be granted either for Spanish 311 or Spanish 312, but not for both. Prerequisite: 203 or consent of department chairperson.

312—4 CONTEMPORARY SPANISH AMERICA. Analysis of significant aspects of Spanish-American culture designed to improve intercultural understanding and to develop language skills. Oral discussions, readings, oral and written reports. Major credit will be granted either for Spanish 311 or Spanish 312, but not for both. Prerequisite: 203 or consent of department chairperson.

351—4 SURVEY OF SPANISH LITERATURE (MIDDLE AGES THROUGH THE SEVENTEENTH CENTURY). Survey of Spanish literature from the Middle Ages through the Seventeenth Century. Prerequisite: 203 or consent of department chairperson.

352—4 SURVEY OF SPANISH LITERATURE (EIGHTEENTH CENTURY UNTIL THE PRESENT). Survey of Spanish literature from the Eighteenth Century until the present. Prerequisite: 203 or consent of department chairperson.

353—4 SURVEY OF SPANISH-AMERICAN LITERATURE (FROM THE COLONIAL PERIOD UNTIL THE PRESENT). Survey of Spanish American literature from the colonial period until the present. Prerequisite: 203 or consent of department chairperson.

451—4 STUDIES IN SPANISH LITERATURE (BEGINNINGS THROUGH 16TH CENTURIES). Studies of selected topic(s) in Spanish Literature (beginnings through 16th Centuries). NOT FOR GRADUATE CREDIT. Prerequisite: 203 or consent of department chairperson.

452—4 STUDIES IN SPANISH LITERATURE (17TH THROUGH 18TH CENTURIES). Studies of selected topic(s) in Spanish Literature of the 17th through 18th Centuries, from the formation of the Golden Age national theater to Neoclassical poetry and prose. NOT FOR GRADUATE CREDIT. Prerequisite: 203 or consent of department chairperson.

453—4 SEMINAR IN HISPANIC LITERATURE. Study of Hispanic literary masterpieces. NOT FOR GRADUATE CREDIT. Prerequisite: 203 or consent of department chairperson.

454—2 SEMINAR. Integration of the specialized major courses and development of a comprehensive view of the major field in terms of its relationships to the growth of Western Civilization. May be repeated to a maximum of six hours so long as no topic is repeated.

457—4 DON QUIXOTE. A study of the great novel of Cervantes. Prerequisite: any 300-level Spanish course or consent of department chairperson.

461—4 SPANISH STYLISTICS. Study of writing style in Spanish and its application to the development of skill in written expression. For those who wish to do advanced work in the principles of Spanish grammar and composition. Prerequisite: 9 hours of 300-level courses.

471—4 SPANISH-AMERICAN LITERATURE (SHORT STORY AND NOVEL). The new Spanish-American short story and novel of the last two decades of the twentieth century. NOT FOR GRADUATE CREDIT. Prerequisite: 203 or consent of department chairperson.

499—2 to 9 READINGS IN SPANISH. Readings in selected areas of Spanish language, literature, culture, and civilization. Individual work or small groups under direct supervision of one or more members of the foreign language faculty. Prerequisites: 203, consent of department chairperson.

HUMANITIES

100—1 BASICS OF ESPERANTO. Introduction to basic vocabulary and grammatical principles of Esperanto, the International Language developed by Ludwik Zamenhof.

301—4 HUMANITIES HONORS. Variable content. May be taken more than once as long as the content differs. Decisions about repeated credit will be the responsibility of the Coordinator of the Humanities Honors Program. Prerequisite: 4.25 GPA or better or consent of instructor and Coordinator of the Humanities Honors Program.

302—4 HUMANITIES HONORS. (See 301).

303—4 HUMANITIES HONORS. (See 301).

310—8 (4,4) ESPERANTO. Development of the ability to read, write, speak, and understand Esperanto, the international language developed by Ludwik Zamenhof. Must be taken in sequence.

400—1 to 4 SYMPOSIUM IN THE HUMANITIES. Usually a

short-term course in subject matter beyond the areas covered regularly by the standard curricula. Subject matter may vary each time course is offered. Credit toward concentration is at discretion of department. May be repeated up to 8 hours credit. Prerequisite: senior standing or consent of instructor.

450—4 CHILDREN AND DEATH. An examination of death, dying, and bereavement as they occur in or are related to childhood and adolescence. The development of children's concepts and attitudes about death, methods and materials for death education, strategies for counseling, and ethical dimensions.

495—2 to 4 INDEPENDENT READINGS. Independent study in the humanities on a tutorial basis. May be repeated to a maximum of 8 hours. Prerequisites: consent of instructor and the instructor's chairperson.

PHILOSOPHY

110—4 CONTEMPORARY MORAL ISSUES. This course is designed to familiarize the student with some of the moral issues that have lately been the focus of much public debate, such as abortion, sexual practices, treatment of minorities, drug use, censorship, advertising practices and the enforcement of morality. The emphasis is on cultivating an ability to analyze different positions taken on an issue, on identifying and clarifying arguments offered for and against the positions, and on evaluating arguments critically and fairly.

200—4 INTRODUCTION TO PHILOSOPHY. Survey of the traditional branches and problems of philosophy, such as religion, metaphysics, epistemology, ethics, political theory, aesthetics, and history.

230—4 INTRODUCTION TO DEDUCTIVE LOGIC. An introduction to formal, deductive logic, with emphasis on the use of formal techniques for analyzing correct reasoning. Propositional logic, syllogistic and class logic, predicate logic, and the applications of logic to philosophical problems will be treated.

300—4 METAPHYSICS. Presentation of answers to the most general problems of existence. An attempt to unify all scientific approaches to reality through the laying down of common principles.

301—4 PHILOSOPHY OF RELIGION. An analysis of problems in the psychology, metaphysics, and social effects of religion. The nature of mystical experience, the existence of God, and problems of suffering, prayer, and immortality.

302—4 WORLD RELIGIONS. An historical and comparative study of the principal religions of the world. Particular attention is given to such non-Christian faiths as Hinduism, Buddhism, and Islam.

306—4 PHENOMENOLOGY. An introduction to the dominant movement in contemporary continental philosophy. Attention to the central works of representative thinkers, e.g., Husserl, Heidegger, Sartre, Merleau-Ponty, and Ricoeur, in order to expose the problems, doctrines, and methods which characterize phenomenology as a mode of philosophizing. Prerequisite: sophomore standing.

307—4 PHILOSOPHY OF SCIENCE. An examination of the structure of science with emphasis on such problems as causality, explanation, confirmation, and the differences between the relations among the various sciences.

308—4 TWENTIETH CENTURY ANALYTIC PHILOSOPHY. An introduction to the dominant movement in contemporary philosophy in English speaking countries. Attention to the central works of representative thinkers, e.g., G. E. Moore, Bertrand Russell, Gilbert Ryle, and Ludwig Wittgenstein, in order to explain the problems, doctrines, and methods which characterize analytic philosophy as a mode of philosophizing. Prerequisite: sophomore standing.

310—4 PHILOSOPHY OF LAW. A survey of four basic theories of the nature of law: natural law, legal positivism, legal realism, and sociological jurisprudence. An attempt to answer such persistent questions as the meaning of a legal system, the nature of the rules and to what extent law consists of rules, the meaning of legal obligation and how it differs from ethical obligation, and what distinguishes laws from orders enforced by threats.

311—4 ENGINEERING, ETHICS, AND PROFESSIONALISM. Through case studies, lectures, and discussions the student will be introduced to significant ethical and legal issues which arise in and affect professional engineering. The course will deal with such topics as codes of ethics, engineering and the public interest, employer-employee relationships, and recent Supreme Court decisions. Prerequisite: junior standing.

312—4 ETHICS IN THE MEDICAL COMMUNITY. An examination of selected moral problems in the field of medicine such as consumer protection in health-delivery systems, truth-telling in the health professional-patient relationship, medical experimentation on human subjects, suffering and dying, and procreative decisions.

320—4 PHILOSOPHICAL CONCEPTIONS OF WOMAN. An examination of the theories of the nature and role of women as expounded by philosophers past and present. Prerequisite: junior standing.

321—4 SOCIAL PHILOSOPHIES OF THE WOMEN'S MOVEMENT. Analysis of society from a feminist perspective through a critical examination of major theoretical works of the women's movement. Prerequisite: GHA 282 strongly recommended.

342—4 SOCIAL AND POLITICAL PHILOSOPHY. Analysis of the philosophical problems of social and political theory and conduct, and their expression in social and political organization and values. Prerequisite: sophomore standing.

345—4 THE AESTHETICS OF FILM. An examination of the major genres of film and film theory. Prerequisite: sophomore standing or consent of instructor.

360—4 PHILOSOPHY OF ART. The significance of art as a human activity, its nature and standards as seen in the problems of criticism, and the relation of art to other forms of knowledge.

380—4 CHINESE PHILOSOPHY. The historical development of Chinese thought from Confucius and Lao Tzu to Mao Tse-Tung.

385—20 (4,4,4,4,4) HISTORY OF WESTERN PHILOSOPHY. (a) Greek and Roman. (b) Medieval and Renaissance. (c) Classical Modern (17th and 18th centuries). (d) 19th Century. (e) 20th Century.

386—4 AMERICAN PHILOSOPHY. A survey of American philosophic thought from colonial days to the present, with emphasis on such recent thinkers as Peirce, James, Royce, Dewey, and Santayana.

391—4 THEORY OF KNOWLEDGE. A study of the various kinds of knowledge, of the foundations of knowledge in thought and perception, and of the rational and empirical elements constituting the structure of knowledge.

402—4 HINDU THOUGHT. A historical survey of Indian philosophy from the Upanishads to Vedanta. Prerequisite: 302.

403—4 BUDDHIST THOUGHT. An investigation of Buddhist philosophy from Theravada through Zen. Prerequisite: 302.

412—4 CONTEMPORARY ISSUES IN BIO-ETHICS. (Same as Biology 412.)

430—4 SYMBOLIC LOGIC. Use of symbols as tools for analysis and deduction. Study of truth tables, Boolean Expansions, propositional calculus and quantifiers, logic of relations, and their functions in logistic systems.

470—4 TOPICS OF BUSINESS ETHICS. An examination of the ethical dimensions arising within the economic and business framework with emphasis on decisions confronting the manager. Attention to the problem of corporate responsibility.

484—12 (4,4,4) HISTORY OF WESTERN POLITICAL THEORY. (Same as Government 484.) (a) Ancient and Medieval. (b) Renaissance and Early Modern. (c) Recent. May be taken separately.

490—2 to 6 SPECIAL PROBLEMS. Seminar for qualified seniors and graduate students to pursue specific topics in depth. Varied content. May be repeated to a maximum of 16 hours so long as no topic is repeated. Prerequisite: consent of instructor.

495—2 to 6 INDEPENDENT READINGS. Independent study in philosophy on a tutorial basis. May be repeated to a maximum of 12 hours. Prerequisite: consent of instructor and department chairperson.

WOMEN'S STUDIES

390—2 to 4 SELECTED TOPICS. A course for juniors and seniors which treats particular issues or areas directly relevant to the experience of women. Varied content. May be repeated to a maximum of 8 hours.

490—2 to 6 SPECIAL PROBLEMS. Seminar for qualified seniors and graduate students to pursue specific topics in depth. Varied content. May be repeated to a maximum of 16 hours so long as no topic is repeated. Prerequisite: consent of instructor.

495—2 to 4 INDEPENDENT READINGS IN WOMEN'S STUDIES. Independent reading and research in the area of women's studies. Form and content to be arranged with instructor and approved by women's studies adviser. May be repeated up to 8 hours. Prerequisite: approval of women's studies adviser.

499—4 PRACTICUM IN WOMEN'S STUDIES. A practical experience in some phase of women-oriented activity proposed by the student and a recognized organization. Involves at least 10 hours a week with the organization plus an academic component such as a paper. Examples: work with Rape Crisis Center, Oasis Shelter for Women, Women's Studies Program. Generally reserved for qualified students with at least 12 credit hours in Women's Studies (or equivalent related experience). Prerequisite: consent of Director of Women's Studies.

SCHOOL OF NURSING

Courses on the 200, 300, and 400 level are open only to those students who are majoring in nursing.

151—2 PROFESSIONAL NURSING PERSPECTIVES. This is an introductory course for registered nurses returning to school. Students will explore the professional components of nursing utilizing a historical approach. Content relative to attitudinal change will be developed around the themes of assertiveness, client advocacy, and autonomy. Prerequisite: R.N. licensure.

170—4 LIFE SPAN DEVELOPMENTAL CONCEPTS. A developmental study of the individual from conception to senescence, with emphasis on physiologic, psychologic, and social development. Prerequisite: general psychology or consent of instructor.

201—3 CONCEPTUAL BASIS FOR ASSISTING THE CLIENT IN MAINTAINING EQUILIBRATION I. This course focuses on the nursing care of individual clients who are in various stages of the health maintenance process. Emphasis is

placed on study of the School of Nursing's conceptual framework and aspects of health maintenance relating to the concepts of client-environment interaction, metabolism, perception and coordination, immunity and inflammation, and oxygenation. Prerequisites: admission to School of Nursing; concurrent enrollment in 211, 221, 231, and 241 is expected; concurrent enrollment in, or completion of, Biology 312b.

202—3 CONCEPTUAL BASIS FOR ASSISTING THE CLIENT IN MAINTAINING EQUILIBRATION II. This course focuses on the nursing care of individual clients whose health maintenance process is threatened by stressors. Particular emphasis is placed on the application of biological, psychological and social concepts to the nursing care of individuals in various phases of the health maintenance process due to stressors affecting one or more of the following: reproductive status, perception and coordination, fluid and electrolyte dynamics, and oxygenation. Prerequisites: completion of Quarter 5 nursing courses; concurrent enrollment in 212, 222, 232 and 242 is expected; Biology 312b.

211—2 PROFESSIONAL NURSING PROCESSES: NURSING PROCESS I. Utilizing a historical perspective, students study the nursing process as the contemporary framework for providing professional nursing care to individuals. The phases of assessing, diagnosing , planning, implementing and evaluating will be discussed. Prerequisites: admission to School of Nursing; concurrent enrollment in 201, 221, 231, 241 is expected; concurrent enrollment in, or completion of, Biology 312b.

212—2 PROFESSIONAL NURSING PROCESSES: NURSING PROCESS II. A further study of the nursing process as the contemporary framework for providing professional nursing care. Focus is on the assessment of transcultural needs and the effects of nursing practice standards upon the quality of professional nursing practice, including the strengths and limitations of professional nursing practice. Prerequisites: completion of Quarter 5 nursing courses; concurrent enrollment in 202, 222, 232, and 242 is expected; Biology 312b.

221—2 INTERPERSONAL RELATIONS I. The focus of this course is the development of intra- and interpersonal performance systems. The study of role and role behaviors as these influence/determine the individual's self-concept is presented. The effect of the role perceptions and expectations on nursing practice is explored. The communication process necessary for establishing and maintaining intra- and interpersonal relationships is examined. Students will be encouraged to examine personal feelings, attitudes and values that affect nursing practice as well as previous experiences that may influence nurse-client (system) relationship. Prerequisites: admission to School of Nursing; concurrent enrollment in 201, 211, 231 and 241 is expected; concurrent enrollment in, or completion of, Biology 312b.

222—2 INTERPERSONAL RELATIONS. This course focuses on threats to the maintenance of intrapersonal performance systems. Stress as a human phenomenon arising from developmental and situational events is presented. The student studies the defense and coping strategies used by the individual to aid in accommodating to stressors in the environment. The nurse's role in prevention of stress and providing therapeutic support for the client undergoing stress is explored. Prerequisites: completion of Quarter 5 nursing courses and Biology 312b; concurrent enrollment in 202, 212, 232, and 242 is expected.

231—1 PSYCHOMOTOR NURSING SKILLS I. Students are introduced to simple skills of client care which provide the foundation for maintaining client equilibration. Basic skills of health assessment are presented including history taking and four basic methods of physical evaluation. These psychomotor skills are correlated with didactic content from concurrent nursing courses and practiced in simulated clinical situations (nursing laboratory). Prerequisites: admission to the School of Nursing; concurrent enrollment in, or completion of 201, 211, and 221; concurrent enrollment in 241 is expected, concurrent enrollment in, or completion of, Biology 312b.

232—1 PSYCHOMOTOR NURSING SKILLS II. This course includes selected nursing skills drawn from concepts presented in the Conceptual Basis and Interpersonal Relations courses. Moderately complex skills are introduced; these skills are utilized in assisting selected clients in the maintenance of equilibration. Prerequisites: completion of Quarter 5 nursing courses; completion of, or concurrent enrollment in, 202, 212, and 222; concurrent enrollment in 242 is expected; Biology 312b.

241—2 NURSING MAINTENANCE PRACTICUM I. Through planned learning experiences in a variety of clinical practice settings, students assist individual clients to maintain health. Nursing strategies which assist clients to deal with usual life stressors are utilized. Application of nursing process components and simple psychomotor skills to the care of clients is expected. Prerequisites: admission to the School of Nursing; concurrent enrollment in, or completion of, Biology 312b; concurrent enrollment in, or completion of, other Quarter 5 nursing courses.

242—2 NURSING MAINTENANCE PRACTICUM II. Utilizing a variety of structured health care settings, students explore the supportive role of the nurse in assisting clients to maintain individual optimal health status. Emphasis is placed on the use of nursing knowledge and skills with clients whose health maintenance process is threatened due to a change in one or more of the following: reproductive status, perception and coordination, fluid and electrolyte dynamics, and oxygenation. Prerequisites: completion of Quarter 5 nursing courses; Biology 312b; completion of, or concurrent enrollment in, other Quarter 6 nursing courses.

301—5 CONCEPTUAL BASIS FOR ASSISTING THE CLIENT IN RESTORING EQUILIBRATION I. This course focuses on the nursing care of clients and their families who are

in various stages of the restorative health process. Particular emphasis is placed upon the application of biological, psychological and social concepts to the study of clients facing one or more of the following crises: pregnancy, infection, injury and other emergencies, surgical therapy, and a change in female reproductive status. Prerequisites: completion of Quarter 6 nursing courses and Sociology 340; concurrent enrollment in 311, 331, and 341 is expected.

302—5 CONCEPTUAL BASIS FOR ASSISTING THE CLIENT IN RESTORING EQUILIBRATION II. This course focuses on the nursing care of clients and their families who are in various stages of the restorative health process due to disturbances in one or more of the following: immunity and inflammation, coordination, and oxygenation. Prerequisites: completion of Quarter 7 nursing courses; Psychology 305; concurrent enrollment in 312, 332, and 342 is expected.

303—5 CONCEPTUAL BASIS FOR ASSISTING THE CLIENT IN RESTORING EQUILIBRATION III. This course focuses on the nursing care of clients and their families who are in various stages of the restorative health process due to disturbances in one or more of the following: fluid and electrolyte balance, metabolism, and proliferation of cells. Prerequisites: completion of Quarter 8 nursing courses; concurrent enrollment in 313, 333, and 343 is expected.

304—5 CONCEPTUAL BASIS FOR ASSISTING THE CLIENT IN RESTORING EQUILIBRATION IV. The course focuses on the nursing care of clients and their families who are in various stages of the restorative health process due to disturbances in perception. Prerequisites: completion of Quarter 9 nursing courses and Psychology 465; concurrent enrollment in 314, 324, and 344 is expected.

311—2 PROFESSIONAL NURSING PROCESSES: TEACHING-LEARNING. The place of teaching in nursing practice is explored. Each component is presented in depth. Focus is on assessment of learning needs, formulation of teaching plans, and evaluation of health teaching. Prerequisites: completion of Quarter 6 nursing courses; concurrent enrollment in 301, 331 and 341 is expected.

313—3 PROFESSIONAL NURSING PROCESSES: MANAGEMENT I. This course explores theories, concepts, and principles of management as it relates to health care administration and management in professional nursing practice. Prerequisites: completion of Quarter 8 nursing courses; concurrent enrollment in 303, 333 and 343 is expected.

314—2 PROFESSIONAL NURSING PROCESSES: MANAGEMENT II, THE MANAGEMENT OF CHANGE. This course introduces the student to the concept of change, and the need for the managing of change within the health care system and the nursing profession. The focus is on managing change in professional nursing relationships. Prerequisites: completion of Quarter 9 nursing courses; concurrent enrollment in 304, 324 and 344 is expected.

324—2 INTERPERSONAL RELATIONS III. The focus of the course is the use of the group process in promotion, restoration and maintenance of health. Leadership functions and strategies utilized by the nurse working with client groups will be stressed. Prerequisites: completion of Quarter 9 nursing courses and Psychology 465; concurrent enrollment in 304, 314 and 344 is expected.

331—2 PSYCHOMOTOR NURSING SKILLS III. This course focuses on performance of nursing assessment and restorative intervention skills associated with labor and delivery, the neonate, emergencies, infection control, surgical therapies, and female reproductive status. Prerequisites: completion of Quarter 6 nursing courses and Sociology 340; concurrent enrollment in, or completion of, 301 and 311; concurrent enrollment in 341 is expected.

332—2 PSYCHOMOTOR NURSING SKILLS IV. This course focuses on performance of nursing assessment and restorative intervention skills with clients of all ages who experience a change of status in one or more of the following: immunity, coordination, and oxygenation. Prerequisites: completion of Quarter 7 nursing courses and Psychology 305; concurrent enrollment in, or completion of, 302 and 312; concurrent enrollment in 342 is expected.

333—2 PSYCHOMOTOR NURSING SKILLS V. This course focuses on performance of nursing assessment and restorative intervention skills with clients of all ages who experience a change of status in one or more of the following: perception, fluid and electrolyte balance, and metabolism. Synthesis opportunities are included. Prerequisites: completion of Quarter 8 nursing courses; concurrent enrollment in, or completion of, 303 and 313; concurrent enrollment in 343 is expected.

341—3 NURSING RESTORATION PRACTICUM I. Utilizing components of the nursing process, the focus of the course is the changing family during intrapartum and postpartum periods as well as restorative nursing care of clients facing one or more of the following: infection, emergencies, surgical therapy and a change in female reproductive status. Clinical applications involved in making decisions and alternative nursing strategies are included. Prerequisites: completion of Quarter 6 nursing courses and Sociology 340; concurrent enrollment in, or completion of, other Quarter 7 nursing courses.

342—3 NURSING RESTORATION PRACTICUM II. Emphasis in this course is on the use of restorative nursing skills with pediatric and adult clients who experience disturbances which affect one or more of the following: immunity and inflammation, coordination, and oxygenation. Practice with the teaching/learning process and observation of various professional nurse roles is included. Prerequisites: completion of Quarter 7 nursing courses and Psychology 305; concurrent enrollment in, or completion of, Quarter 8 nursing courses.

343—3 NURSING RESTORATION PRACTICUM III. Emphasis in this course is on the use of restorative nursing skills with

pediatric and adult clients who experience disturbances which affect one or more of the following: fluid and electrolyte balance, metabolism, and proliferation of cells. Field experiences include the study of different professional nursing roles. Prerequisites: completion of Quarter 8 nursing courses; concurrent enrollment in, or completion of, other Quarter 9 courses.

344—3 NURSING RESTORATION PRACTICUM IV. Emphasis in this course is on the use of restorative nursing skills with clients who experience perceptual difficulties. Experience in using principles of management and group process skills in selected settings is also provided. Prerequisites: completion of Quarter 9 nursing courses and Psychology 465; concurrent enrollment in, or completion of, other Quarter 10 nursing courses.

351—1 to 4 INDEPENDENT INQUIRY IN NURSING. This elective course provides an opportunity for the student to improve and expand an area of personal interest by investigation and pursuit through an individually planned experience. Carried out under the guidance of an instructor, the student develops an area of inquiry that will be studied throughout the quarter. May be repeated for a maximum of 8 credit hours. Prerequisites: Quarter 8 nursing courses; consent of instructor and level coordinator; application filed in School of Nursing.

352—4 UNDERGRADUATE NURSING INTERNSHIP. This elective course is planned for students to pursue an internship for further development of professional skills. The student will have the opportunity to practice psychomotor skills, organizational skills, interpersonal relationship skills and explore professional issues of concern. Planned experiences will be in the clinical area under the guidance of an instructor/staff. Prerequisite: satisfactory completion of courses through Quarter 7 of the nursing curriculum.

354—4 LEGAL ASPECTS OF PROFESSIONAL NURSING PRACTICE. This elective course is planned to provide students with the opportunity for an indepth examination of the legal responsibilities of professional nursing practice. The emphasis is on case law relevant to implementation of the following processes: nursing, teaching, management, and research. Prerequisite: completion of Quarter 8 nursing courses.

356—2 NURSING INTERVENTIONS FOR CLIENTS WITH EKG AND HEMODYNAMIC MONITORING. This course provides information on selected advanced measures related to critical care. Emphasis will be placed on formulating nursing interventions and management of clients with dysrhythmias and hemodynamic alterations. Prerequisite: 302 or consent of instructor.

357—4 HEALTH ASSESSMENT. The focus of this course is on health assessment of the adult and child. This course is designed to teach students the basic skills required for assessment of the adult and child, i.e., taking a comprehensive health history, performing a physical examination and recording the findings. Prerequisite: consent of instructor.

401—3 CONCEPTUAL BASIS FOR ASSISTING THE CLIENT IN PREVENTING DISEQUILIBRATION I. This course focuses on the evaluation of the health needs of clients in the community in order to support the health promotion process; levels of prevention, principles of epidemiology and cultural variables affecting health are studied as they relate to preventive nursing concepts and practice. NOT FOR GRADUATE CREDIT. Prerequisites: completion of Quarter 10 nursing courses; concurrent enrollment in 411 and 441 is expected.

402—3 CONCEPTUAL BASIS FOR ASSISTING THE CLIENT IN PREVENTION OF DISEQUILIBRATION II. This course focuses on communities as clients in various stages of the health maintenance, restoration or promotion process. Content related to community optimum level of functioning and social systems of the community which affect the health care system is studied. NOT FOR GRADUATE CREDIT. Prerequisites: completion of Quarter 11 nursing courses; concurrent enrollment in 412 and 442 is expected.

412—2 PROFESSIONAL NURSING PROCESSES: RESEARCH II. This course emphasizes the importance of research to the practice of nursing. Identification of nursing research problems will be accomplished and strategies to test the associated hypotheses will be devised. NOT FOR GRADUATE CREDIT. Prerequisites: completion of Quarter 11 nursing courses; concurrent enrollment in 402 and 442 is expected.

441—3 PREVENTIVE NURSING PRACTICUM I. Within the framework of prevention levels, students will apply nursing strategies in the care of clients in a variety of community-based settings. Emphasis will be placed on promoting change in order to strengthen the coping abilities of clients/populations at risk. Prerequisites: completion of Quarter 10 nursing courses; concurrent enrollment in, or completion of, other Quarter 11 nursing courses. NOT FOR GRADUATE CREDIT.

442—3 to 6 PREVENTIVE NURSING PRACTICUM II. This course offers the student an opportunity to synthesize concepts of prevention at the primary, secondary or tertiary level of health care. Professional nursing processes will be utilized with clients in a selected structural, functional or special interest community group. NOT FOR GRADUATE CREDIT. Prerequisites: completion of Quarter 11 nursing courses; concurrent enrollment in, or completion of, other Quarter 12 nursing courses.

451—4 NURSING IMPLICATIONS OF DRUG INTERACTIONS AND CLIENT BIOPHYSICAL EQUILIBRATION. This course is a nursing elective designed to provide the student with the opportunity to relate knowledge of the interactions of pharmacologic classification to the effect of complex drug interactions. Discussions will center around possible nursing actions that lead clients toward equilibration while they are receiving multiple drugs. NOT FOR GRADUATE CREDIT. Prerequisite: consent of instructor.

461—4 CONCEPTUAL BASIS FOR ASSISTING THE SERIOUSLY DISTURBED AND CHRONICALLY MENTAL-

LY ILL CLIENT IN PREVENTING DISEQUILIBRATION. Concepts and theory as they relate to the maintenance, restoration, and tertiary prevention of the seriously disturbed and chronically mentally ill. Prerequisites: level III Nursing student; graduate level Nursing major; psychology or counselor education majors.

462—8 INTERNSHIP IN CARE OF CHRONICALLY MENTALLY ILL CLIENTS. This clinical course offers an opportunity to provide appropriate and innovative care to severely disturbed and/or chronically mentally ill clients. NOT FOR GRADUATE CREDIT. Prerequisites: completion of Quarter 10 nursing courses or admission to Phase II of RN completion program; concurrent enrollment in or completion of 461 (elective didactic course).

495—4 PRIMARY PREVENTION IN COMMUNITY MENTAL HEALTH NURSING. Examination of mental health problems of selected target populations within inner cities or rural areas. Short term primary prevention programs are implemented by nursing students under faculty supervision. Focus of the programs is to reduce the incidence of new cases of mental disorders and disability in a population. Prerequisites: senior or graduate level nursing major.

SCHOOL OF SCIENCES

BIOLOGICAL SCIENCES

100—4 DIVERSITY OF LIFE: INTRODUCTION TO ORGANISMAL BIOLOGY. An introduction to the diversity of organisms, Mendelian and population genetics, ecology and evolution. Three hours lecture and one laboratory per week. (100 and 101 may be taken in either sequence.)

101—4 UNITY OF LIFE: INTRODUCTION TO CELL BIOLOGY AND PHYSIOLOGY. An introduction to cellular organization and metabolism, molecular genetics and the physiology of plants and animals. Three hours lecture and one laboratory per week. (Biol. 100 and 101 may be taken in either sequence.) Prerequisites: high school biology or Biology 100, high school chemistry or Chemistry 105 or concurrent enrollment in Chemistry 125a and 126a.

220—5 GENETICS. Mechanisms of inheritance, gene action, and genetic diversity. Four lecture and three laboratory hours per week. Prerequisites: 100, general chemistry.

240—10 (5,5) HUMAN ANATOMY AND PHYSIOLOGY. (a) The structure and function of the human body. Tissues, skeletal, muscular, and nervous systems. (b) Continuation of a. Endocrine, circulatory, respiratory, digestive, and urinary systems. Four hours lecture, one three-hour laboratory per week. Prerequisite: (a) college chemistry; (b) 240a.

250—4 BACTERIOLOGY. A treatment of cytology; theories and techniques of staining; physiology and classification of microorganisms; and their medical relationships. Three hours of lecture and one laboratory hour per week. Prerequisite: GSM 130.

270—5 BOTANY. Structure, nutrition, growth, differentiation and reproduction in the plant kingdom. Three lecture and four laboratory hours per week. Prerequisite: 100.

280—5 ZOOLOGY. A survey of animal groups from protozoans through mammals. Emphasis on functional systems as they relate to phylogeny. Two lecture and six laboratory hours per week. Prerequisite: 100.

324—5 COMPARATIVE ANATOMY OF VERTEBRATES. An evolutionary approach to comparative form, function, and development of vertebrate organisms with emphasis on both fossil and living forms. Two hours lecture, and three laboratories per week. Prerequisite: zoology.

325a—3 EMBRYOLOGY. Morphogenesis and differentiation in animals with emphasis on vertebrates. Three hours lecture per week. Prerequisites: 101, zoology.

325b—2 EMBRYOLOGY LABORATORY. Emphasis on embryology of vertebrate forms. Two laboratories hours per week. Prerequisite: concurrent enrollment in 325a.

327—3 EVOLUTION. Evolutionary change including population genetics, ecological factors, selection, and speciation. Three hours lecture per week. Prerequisite: 100, zoology.

331—5 CELL BIOLOGY. Cell structure and function. Structure, organization, and function of cells, organelles, and macromolecules. Four hours lecture and one laboratory per week. Prerequisites: 101, Chemistry 241a or 110b.

332—4 BASIC BIOCHEMISTRY. The relation between the structure and function of biologically important macromolecules. Nucleic acids, proteins, and carbohydrates, with emphasis on the regulation of their biosynthesis and degradation. The importance of these ideas to modern biology. Four hours lecture per week. Prerequisite: Chemistry 241.

335—4 INTRODUCTION TO IMMUNOLOGY. Discussion of current concepts in immunology including anatomical, cellular, and biochemical aspects of the immune response, and an introduction to pathogenic mechanisms in transplantation immunology, immunity to infectious diseases, and autoimmunity. Prerequisites: 101 and a course in cell biology, genetics, or microbiology.

337—4 ANIMAL HISTOLOGY. Principles of the structure and function of animal tissues and the techniques used to study them. Three hours lecture, one laboratory per week. Prerequisites: 100, 101, general chemistry.

340—5 PHYSIOLOGY. Function and regulation in animals. Four lecture and three laboratory hours per week. Prerequisites: 101, zoology, general chemistry.

350—5 MICROBIOLOGY. The biology of bacteria, molds, yeasts, and viruses. Structure, growth, and the significance of these organisms in medicine, industry, and the environment. Three lectures and two three-hour laboratories per week. Prerequisites: 101, general chemistry.

351—3 DIAGNOSTIC MICROBIOLOGY. Methods for isolating pathogenic bacteria and determining their significant properties and immunological features. Two laboratories per week. Prerequisite: microbiology.

365—4 ECOLOGY. The scope of ecology, population ecology, models of population growth, competition, predation, diversity and stability of ecosystems, community structure, ecological energetics. Prerequisite: botany or zoology.

410—5 (3,1,1) ELECTRON MICROSCOPY. (a) Theory, demonstration, exercises, and review. Two lecture hours and one demonstration hour per week. (b) Laboratory, fixing and embedding. (c) Laboratory, sectioning and microscopy. Prerequisites: (a) consent of instructor; (b) recent or concurrent enrollment in 410a, consent of instructor; (c) recent or concurrent enrollment in 410a,b, consent of instructor.

412—4 CONTEMPORARY ISSUES IN BIO-ETHICS. (Same as Philosophy 412.) An examination of certain contemporary moral issues in the life sciences including moral problems raised by recombinant DNA research, genetic screening, genetic testing, eugenics and population control, in vitro fertilization, and cloning. Prerequisite: consent of instructor.

415—4 (2,2) (a) TECHNIQUES IN CELL AND TISSUE CULTURE. (b) LABORATORY IN CELL AND TISSUE CULTURE. Principles, methods and application of eukaryotic cell and tissue culture. Growth, behavior, differentiation and metabolism of cells in culture. (a) Introduction to theory and techniques in cell culture. One lecture and one laboratory per week. (b) Independent supervised projects in cell culture. Two laboratories per week. Prerequisites: (a) junior standing, consent of instructor. (b) 415a or concurrent enrollment.

417—2 PLANT MICROTECHNIQUE. Principles and techniques of preparing plant tissues for microscopic study. Four hours of laboratory per week. Prerequisite: plant anatomy or consent of instructor.

421—3 HUMAN GENETICS. Principles of human genetics; human chromosomes; Mendelian characters in man; genetic inference; pedigrees, twins, populations—mutation—genetics of races; genetics and medicine. Prerequisite: genetics.

422—4 CYTOGENETICS. Correlation of cytology with genetics. Cell mechanics and nuclear division. Mitosis, meiosis, crossing over and mapping of chromosomes. Maturation, mitotis agents, effect of irradiation, polyploidy, structural aberrations, polytene chromosomes. Synthesis of new species, comparative karyomorphology. An examination of evolution and cytogenetics. NOT FOR GRADUATE CREDIT. Prerequisite: genetics.

430—9 (3,3,3) MOLECULAR BIOLOGY. (a) The genetic capabilities of living organisms expressed in the structure and function of proteins. (b) The relation between the structure and function of biological molecules and the control of metabolism. (c) The structure and function of nucleic acids in the control of protein synthesis. Must be taken in sequence. Prerequisite: genetics, and organic chemistry.

433—3 BIOMEMBRANES. The structure and function of biological membranes. Techniques of membrane analysis, permeability barrier and transport phenomena, and role of membranes in bioenergetics and macromolecular synthesis. NOT FOR GRADUATE CREDIT. Prerequisites: 331, and 332 or 430 recommended.

434—4 CELLULAR REGULATION. The effects of the physical and chemical environment on cellular processes and activities (e.g., on cell growth and division, metabolism ultrastructure, and biochemistry). The molecular bases for the responses of the cell to changes in the environment are stressed. NOT FOR GRADUATE CREDIT. Four hours lecture per week. Prerequisites: 331 and 332 or 430.

436—3 CELL ORGANELLES AND INCLUSIONS. The function, structure, and formation of selected organelles and inclusion of eucaryotic cells. Current literature is covered in some detail and discussion sessions are held. Three hours lecture per week. Prerequisite: cell biology or biochemistry.

437a—3 BIOLOGICAL ULTRASTRUCTURE. In-depth study of a variety of structurally representative types of tissues and microorganisms. Three one hour lectures per week. NOT FOR GRADUATE CREDIT. Prerequisites: 280 and 331.

437b—3 ADVANCED ULTRASTRUCTURE LABORATORY. Investigation of the ultrastructure of a tissue or microorganism and instruction in advanced electron microscopy technique. Three three-hour laboratories per week. TBA. Prerequisites: electron microscopy, concurrent enrollment in 437a/537 and consent of instructor.

438—3 PROTEINS. An examination of the physical and chemical structures of proteins, including structural and enzymatic proteins as well as the evolution of proteins. NOT FOR GRADUATE CREDIT. Prerequisite: biochemistry.

439—3 NUCLEIC ACIDS. An examination of the physical, chemical, and biological properties of nucleic acids in terms of their structure and function. NOT FOR GRADUATE CREDIT. Prerequisite: biochemistry.

441—3 MAMMALIAN PHYSIOLOGY. Nervous and endocrine coordinating processes, sensory function, circulation, respiration, alimentation, and regulation of body fluids, with special reference to man. Three hours lecture per week. Prerequisites: organic chemistry and physiology.

444a—3 NEUROPHYSIOLOGY. Mechanisms of response

and integration with emphasis on the role of the nervous system. NOT FOR GRADUATE CREDIT. Three lectures per week. Prerequisites: human or animal physiology and calculus or physics.

444b—1 NEUROPHYSIOLOGY LABORATORY. Experiments dealing with integrative role of the nervous system. Prerequisite: Neurophysiology or concurrent enrollment.

445—3 ENDOCRINOLOGY. A survey of endocrine organs in chordates, higher invertebrates and plants with major emphasis on roles of endocrine glands and their hormonal secretions in integration, control systems and metabolism. NOT FOR GRADUATE CREDIT. Prerequisite: cell biology or consent of instructor.

446—2 BIOCHEMICAL ASPECTS OF HORMONE REGULATION OF METABOLISM. Designed to build upon the foundation laid in a basic course in biochemistry. Hormone regulation mechanisms at the molecular level. Prerequisite: biochemistry or cell biology.

447a—3 PHYSIOLOGY OF SENSE ORGANS. Structure and function of selected sense organs, including physiochemical processes in transducer action by receptors and handling of sensory messages. NOT FOR GRADUATE CREDIT. Prerequisite: physiology.

447b—1 PHYSIOLOGY OF SENSE ORGANS LABORATORY. Electrophysiological techniques and measurements as applied to animal sensory receptor organs. Prerequisite: concurrent enrollment in physiology of sense organs.

448—3 PSYCHOBIOLOGY. An interdisciplinary approach to topics of current and classical interest in the fields of neurobiology, sensory receptors, and behavior. Includes biological clocks, animal migration and homing, pheromones, neuroendocrine transduction, neural correlates of behavior. NOT FOR GRADUATE CREDIT. Prerequisite: consent of instructor.

451—4 MICROBIAL PATHOGENESIS. Analysis of the mechanisms of pathogenesis employed by medically important bacteria, fungi, and viruses, including discussion of transmission, invasion, colonization, virulence factors, pathology, epidemiology, and treatment. Prerequisite: microbiology.

452—3 MICROBIAL GENETICS. Gene action in microorganisms including genetic code, mechanism and types of mutation, DNA structure, replication and transcription, gene expression and the mechanisms and importance of transfer of genetic material between organisms. Prerequisites: genetics, cell biology, and microbiology.

454—3 MICROBIAL PHYSIOLOGY. Bacterial growth, biochemical and genetic regulation of metabolism, effects of the physical and chemical environment. Three hours lecture per week. Prerequisites: cell biology, microbiology, and organic chemistry.

455—3 VIROLOGY. A discussion of bacterial and mammalian viruses, with emphasis on their structure, function, and the metobolic consequences of virus infection. The molecular details of viral oncogenesis. NOT FOR GRADUATE CREDT. Prerequistes: biochemistry or organic chemistry, and microbiology.

460a—3 PLANT COMMUNITIES. Plant communities as components of ecosystems centered on an understanding of how these communities originate, develop, and maintain themselves. Quantitative measurements and interpretations of successional dynamics stressed. Prerequisite: ecology.

460b—1 LABORATORY IN PLANT COMMUNITIES. Experiments and field problems in studying plant communities and succession. Some Saturday field trips may be required. Prerequisite: consent of instructor or concurrent enrollment in 460a.

461a—3 PLANTS AND ENVIRONMENT. The environmental relationships of those phases of geology, soils, climatology, zoology, chemistry and physics which are related to the welfare of living plants. A study of the environmental complex and ecologic adaptation. Prerequisite: botany.

461b—1 LABORATORY IN PLANTS AND ENVIRONMENT. Experiments and field problems in studying environmental and plant relationships. Prerequisite: 461a or concurrent enrollment.

462—3 ZOOGEOGRAPHY. Concepts and principles relating to patterns of animal distribution on a local, continental, and world-wide basis. NOT FOR GRADUATE CREDIT. Prerequisite: ecology or consent of instructor.

463—3 PLANT GEOGRAPHY. Spatial relationships of plants both in the present and past. A description of present plant groupings and a study of the general principles regarding the causes of plant distribution. NOT FOR GRADUATE CREDIT. Prerequisite: ecology or geography or consent of instructor.

464—3 ECOLOGY AND MAN. Advanced topics in ecology which are relevant to man's interaction with his biological environment, including modified nutrient cycles, water pollution, food resources, diversity and population dynamics. Prerequisite: ecology.

465—4 AQUATIC ECOSYSTEMS. Biogeochemistry of, community structure of, and man's impact on aquatic systems throughout the world. Consideration of lakes, streams, and oceans. Laboratory mainly concerns local freshwater communities. Three lectures, one three-hour laboratory per week. Weekend field trips may be required. Prerequisite: ecology.

466—4 TERRESTRIAL ECOSYSTEMS. Community structure, biogeochemistry, and historical development of terrestrial ecosystems around the world. Laboratory mainly concerns local terrestrial communities. Three lectures, one three-hour laboratory per week. Weekend field trips may be required. Prerequisite: ecology.

467—4 ETHOLOGY. A survey of animal interactions and the response of animals to environmental stimuli. Three lectures, and one laboratory per week. Prerequisite: zoology.

470—4 FIELD BOTANY. Taxonomy, natural history, and distribution of local plants. Two lectures, and two laboratories per week. Fee required for field trips. Prerequisite: botany.

471—4 PHYCOLOGY. Morphology, reproduction, ecology, and physiology of algae. Laboratory includes field work, identification, culturing, and experimentation. Two lectures, two laboratories per week. Prerequisite: botany or consent of instructor.

472—4 TOPICS IN PLANT PHYSIOLOGY. Photosynthesis, mineral nutrition of plants, water regime, growth and movement of plants. Two lectures and two laboratories per week. Prerequisites: botany and inorganic chemistry.

474—4 REPRODUCTION AND DISPERSAL OF VASCULAR PLANTS. The morphology and biology of reproduction and dispersal. Discussion and student reports will include implications for species survival, ecology, biogeography and plant-animal coevolution. Three lectures, one laboratory per week. Prerequisite: botany.

475—4 PLANT ANATOMY. Cell types, tissues, and organography of seed plants with emphasis on phylogeny and trends of specialization. Laboratory on microscopical observations of plant tissues. Two lectures, two laboratories per week. Prerequisite: botany.

477—4 ECONOMIC BOTANY. The influence of plants and plant cultivation on the economic, social, and cultural history of man. An introduction to economically important plants and their products. Prerequisite: botany or consent of instructor.

480—4 FIELD ZOOLOGY. Taxomony, natural history, and distribution of local animals. Two lectures and two laboratories per week. Fee required for field trips. Prerequisite: zoology.

482—4 PRINCIPLES OF PARASITISM. Principles of parasitic relationships. Types of association, morphologic and physiologic adaptations of parasites, defensive mechanisms, immunity, and specificity. Selected examples from animals are used to illustrate the general principles and life histories. Two lectures, two laboratories per week. Prerequisite: zoology.

483—5 (3,1,1) (a) ENTOMOLOGY. (b) INSECT MORPHOLOGY LAB. (c) INSECT COLLECTION LAB. (a) Principles of insect morphology, physiology, development systematics, ecology, and pathology. (b) Morphology of prepared insect specimens in the laboratory. (c) Field collection and identification of local insects. Prerequisite: zoology.

485—4 ICHTHYOLOGY. Relationships, ecology, behavior, physiology, and anatomy of fishes. Field study of local fauna is stressed. Two lectures and two laboratories per week. Saturday field trips required. Prerequisite: zoology or consent of instructor.

486—4 HERPETOLOGY. A study of amphibians and reptiles, their evolution, relationships, morphology, and behavior. Two lectures, and two laboratories per week. Saturday field trips required. Prerequisites: zoology and botany or consent of instructor.

487—4 ORNITHOLOGY. Natural history, relationships, behavioral ecology, and evolution of birds. Saturday field trips required. Prerequisite: zoology.

488—4 MAMMALOGY. Taxonomy, natural history, and evolution of mammals. Two lectures and two laboratories per week. Prerequisite: zoology.

489—3 BIOLOGY OF THE PRIMATES. Evolution, taxonomy, morphology, zoogeography, and natural history of the living and fossil primates including man from a biological standpoint. Prerequisite: zoology.

491a-r—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. Supervised readings in specialized areas. No credit toward minor in biology. May be repeated for total of 8 hours credit. NOT FOR GRADUATE CREDIT. Prerequisite: consent of instructor.

493a-r—2 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, (q) ultrastructure, (r) zoology. Research on biological problems. No credit toward minor in biology. NOT FOR GRADUATE CREDIT. Prerequisites: senior standing, consent of instructor.

495a-f—1 to 16 CLINICAL TOPICS IN MEDICAL TECHNOLOGY. Hospital-based lecture and clinical laboratory in an accredited and affiliated school of medical technology. Total hours may not exceed 55 hours. Each course may be repeated to maximum indicated. (a) Clinical Biochemistry (1-16); (b) Clinical Microbiology (1-16); (c) Clinical Hematology/Coagulation (1-16); (d) Clinical Immunology/Serology/Immunohematology (1-16); (e) Urinalysis/Clinical Microscopy (1-6); (f) Special Topics in Medical Technology (1-6). NOT FOR GRADUATE CREDIT. Prerequisite: acceptance for clinical education into an affiliated school of medical technology.

CHEMISTRY

105—4 INTRODUCTION TO CHEMISTRY. Preparation for university chemistry. Mathematical techniques and problem solving; fundamental chemical terms, concepts, and laws. For students who do not have the basics in high school chemistry. May not be applied to a major or minor in chemistry. Three lecture hours and one problem session hour per week. Prerequisite: one year high school algebra or Mathematics 101.

110—12 (4,4,4) GENERAL, ORGANIC, AND BIOLOGICAL CHEMISTRY. A study of fundamental chemical principles for other than chemistry majors. (a) General and Organic Chemistry. (b) Organic Chemistry. (c) Biological Chemistry. Three lecture hours, one three-hour laboratory per week. Must be taken in sequence.

125—12 (4,4,4) CHEMICAL STRUCTURE AND DYNAMICS. University-level treatment of modern chemistry-atomic structure, molecular bonding, and structure. Basic principles governing chemical change and equilibrium. Four lecture hours per week. Aspects of quantitative analysis are covered in lecture. Must be taken in sequence. Prerequisite for all sections: high school chemistry or 105; for (a) concurrent enrollment in 126a; for (b) concurrent enrollment in 126b; for (c) concurrent enrollment in 126c.

126—3 (1,1,1) CHEMICAL STRUCTURE AND DYNAMICS LABORATORY. Laboratory safety procedures and practices, laboratory techniques, qualitative and quantitative analysis, experiments involving chemical change and equilibria. (a) one two-hour laboratory per week; (b,c) one three-hour laboratory per week. Prerequisite for all sections: high school chemistry or 105; for (a) concurrent enrollment in 125a; for (b) concurrent enrollment in 125b; for (c) concurrent enrollment in 125c.

241—9 (3,3,3) ORGANIC CHEMISTRY. A study of fundamental structure types of organic compounds correlated with their chemical and physical properties. Bonding, reaction, dynamics, reaction types, stereochemistry, functional groups and spectroscopic methods. Must be taken in sequence. Three lecture hours per week. Prerequisite: 125.

245—4 (2,2) ORGANIC CHEMISTRY LABORATORY. Introduction to organic synthesis and the techniques for determining physical and chemical properties of organic systems. Two three-hour laboratory periods per week. Prerequisite for a: 241a; for b: 245a.

311—3 INORGANIC CHEMISTRY. Introduction to theories of bonding and structure; descriptive chemistry of less familiar elements, coordination compounds, and organometallics. Three lecture hours per week. Prerequisite: 125.

335—5 QUANTITATIVE CHEMICAL ANALYSIS. Theory and methods for quantitative analysis, including laboratory experience in gravimetric, volumetric and fundamental instrumental techniques. Three one-hour lectures and two three-hour laboratories per week. Prerequisites: 125c, 126c.

345—3 IDENTIFICATION OF ORGANIC COMPOUNDS. Theory and practice of identifying organic compounds based on determination of physical, chemical and spectroscopic determinations. One lecture hour and two three-hour laboratories per week. Prerequisites: 241c, 245b.

361—9 (3,3,3) PHYSICAL CHEMISTRY. A study of mathematical models of the causes of chemical behavior, and their foundations in experiment. Thermodynamics, statistical mechanics, kinetics, and quantum mechanics with applications Must be taken in sequence. Three lecture hours per week Prerequisites: (a) 125, 12 hours physics, one year calculus (b) 361a; (c) 361b.

365—4 (2,2) PHYSICAL CHEMISTRY LABORATORY. One lecture hour and one four-hour laboratory per week. Prerequisites: (a) 245a, 361a; (b) 361b.

396—2 INTRODUCTION TO RESEARCH. Investigation of relatively simple research problems in chemistry under the direction of a staff member. May be repeated for maximum of 6 hours credit. Prerequisites: 3.0 average in chemistry courses, prior arrangement with a staff member, consent of department chairperson.

411—4 PHYSICAL INORGANIC CHEMISTRY. Modern inorganic chemistry including symmetry, atomic structure, and chemical bonds, and stereochemistry of complex ions and metal chelates. Four lecture hours per week. Prerequisite: concurrent enrollment in 361b or c.

419—2 to 4 SPECIAL TOPICS IN INORGANIC CHEMISTRY. Selected topics, such as Magnetic Resonance, Rare Earths, and Inorganic Reaction Mechanisms. May be repeated to a total of 8 hours as long as no topic is repeated. Prerequisite: consent of instructor.

432—8 (4,4) INSTRUMENTAL ANALYTICAL MEASUREMENTS. Theory and practice of instrumental analytical measurements, including spectrophotometric, electro-analytical, and chromatographic methods. Primarily optical instrumentation. Two lecture, six laboratory hours per week. May be taken in either sequence. Prerequisite: 361b.

439—2 to 4 SPECIAL TOPICS IN ANALYTICAL CHEMISTRY. Selected topics, such as Chelation, Chromatography, and Separations. May be repeated to a total of 8 hours as long as no topic is repeated. Prerequisite: consent of instructor.

441—3 PHYSICAL ORGANIC CHEMISTRY. Chemical equilibria, kinetics, and structure-reactivity relationships are studied in detail for their value as methods for determining the mechanisms of organic reactions. Three lecture hours per week. Prerequisites: 241 and either 361b or equivalent.

444—3 ORGANIC REACTIONS. An intermediate course with emphasis on mono-functional compounds. Additional topics, not included in elementary courses. Three lecture hours per week. Prerequisite: 241.

449—2 to 4 SPECIAL TOPICS IN ORGANIC CHEMISTRY. Selected topics, such as Flavor Chemistry, Heterocyclic Chemistry, and Steroid Chemistry. May be repeated to a total of 8 hours as long as no topic is repeated. Prerequisite: consent of instructor.

451—9 (3,3,3) BIOCHEMISTRY. (a) Life processes at the molecular level with emphasis on the relationships between the structure and function of biological molecules. (b) The generation and storage of metabolic energy and the biosynthesis of macromolecules. (c) The storage, transmission, and expression of information by molecular processes. Must be taken in sequence. Prerequisite: 241.

459—2 to 4 SPECIAL TOPICS IN BIOCHEMISTRY. Selected topics, such as Enzymology, Metabolism, and Nucleic Acids. May be repeated to a total of 8 hours as long as no topic is repeated. Prerequisite: consent of instructor.

460—5 PHYSICAL CHEMISTRY, PREPROFESSIONAL. For secondary concentrations in chemistry and preprofessional students. Suggested for B.S. in Education degree. Traditional and biological aspects of physical chemistry without the requirement of calculus. Four lecture, three laboratory hours per week. Prerequisite: 241.

464—4 SPECTROSCOPY AND MOLECULAR STRUCTURE. Principles of spectroscopy and a systematic survey of the different types of spectroscopy, with emphasis on the molecular information to be obtained from each type. Prerequisite: Chemistry 361 or equivalent.

469—2 to 4 SPECIAL TOPICS IN PHYSICAL CHEMISTRY. Selected topics, such as Aquatic Chemistry, Phase Diagrams, and Surface Chemistry. May be repeated to a total of 8 hours as long as no topic is repeated. Prerequisite: consent of instructor.

471—4 PRINCIPLES OF TOXICOLOGY. The injurious effects of chemicals that enter a biologic species and factors which influence the effects. Detection of hazardous conditions and treatment of effects. Prerequisite: consent of instructor.

479—2 to 4 SPECIAL TOPICS IN CHEMICAL HEALTH AND SAFETY. Selected topics, such as Chemistry Safety Management and Occupational Health Chemistry. May be repeated to a total of 8 hours as long as no topic is repeated. Prerequisite: consent of instructor.

490—2 CHEMICAL LITERATURE. A description of the various sources of chemical information and the techniques for carrying out literature searches. Two lecture hours per week. Prerequisite: 241.

496—2 to 6 CHEMICAL PROBLEMS. Investigation of relatively simple problems under the direction of a staff member. May be repeated to a total of 6 hours. NOT FOR GRADUATE CREDIT. Prerequisites: senior standing, major in chemistry with 4.0 average, consent of department chairperson.

ENVIRONMENTAL STUDIES

415—4 ENVIRONMENTAL PSYCHOLOGY. (Same as Psychology 415.)

473—4 CHEMICAL SAFETY MANAGEMENT. Current concepts in the safe use and handling of chemicals, as recommended by safety professionals. Four lecture hours per week. Prerequisite: consent of instructor.

475—4 PRINCIPLES OF OCCUPATIONAL HEALTH. Current concepts in the field of occupational health. Four lecture hours per week. Prerequisite: consent of instructor.

480—4 PRINCIPLES OF INSTRUMENTAL ANALYSIS. A review of the basic principles of chemical analysis and introduction to the principles and applications of instrumental methods utilized in environmental science. Treatment of experimental data, principles of quantitative analysis, principles and application of spectrophotometry, electroanalytical methods and chromatography. Three lectures, three laboratory hours per week. Prerequisites: college algebra, general chemistry.

MATHEMATICS, STATISTICS, AND COMPUTER SCIENCE

101—4 BEGINNING ALGEBRA. A first course in algebra, including operations with real numbers; first degree equations and inequalities; absolute value; operations with polynomials; factoring; operations with rational expressions. Five contact hours per week. May not carry credit toward some degrees. Graded on Pass/No Credit basis only.

105—4 INTERMEDIATE ALGEBRA. A second course in algebra, including operations with polynomials; factoring; operations with rational expressions, complex numbers; quadratic equations; exponential and logarithmic functions; applications. Five contact hours per week. Prerequisite: one year of high school algebra (college preparatory) or equivalent.

125—4 PRECALCULUS MATHEMATICS WITH TRIGONOMETRY. A study of elementary properties and applications of polynomial, exponential, trigonometric and certain other functions. Some topics from analytic geometry. Prerequisites: 6 semesters of high school mathematics and an ACT score of 23 or higher or GSM 144 with a grade of C or higher.

150—8 (4,4) ELEMENTARY CALCULUS AND ANALYTIC GEOMETRY. Elementary differential and integral calculus with analytic geometry and applications. Includes the definite integral and differentiation of transcendental functions. Must be taken in sequence. Prerequisites: 7 semesters of high school mathematics including a semester of trigonometry and an ACT score of 23 or higher; or MSCS 125 with a grade of C or higher.

170—4 AN INTRODUCTION TO COMPUTERS AND THEIR USES. Designed for people with no prior exposure to computers and computing. Considers what computers are, what they can and cannot do, how they are put to work, and how their use can affect society. Credit may not be earned in this course by students who have completed one or more courses in computer science or management information systems.

172—4 FORTRAN PROGRAMMING. An introduction to computer programming with the FORTRAN language. The writing of well-organized programs is stressed, with emphasis on scientific computing applications. Programming exercises are an essential part of the course. Prerequisite: 150b or concurrent enrollment.

223—4 INTRODUCTION TO DISCRETE MATHEMATICS. Basic concepts and techniques of discrete mathematics that are useful in both mathematics and computer science. The main topics are: logic, sets, natural numbers, induction, number bases, counting techniques, discrete probability. Prerequisite: 172 or 270a.

260—12 (4,4,4) CALCULUS AND ANALYTIC GEOMETRY. Continuation of 150. Analytic geometry, indeterminate forms, improper integrals, linear algebra, vector functions, partial differentiation, multiple integrals, infinite series. Must be taken in sequence. Prerequisite: 150b.

270—12 (4,4,4) COMPUTER PROGRAMMING. An introduction to problem solving methods and algorithm development. Students will learn a widely-used, high-level programming language and learn to design, code, test, debug, and document programs using techniques of good programming style. Basic aspects of recursion, search/sort methods, and data structures will be introduced. Programming exercises are an essential part of the course. Prerequisite: (a) 125 or consent of instructor; (b) 270a; (c) 270b.

305—4 DIFFERENTIAL EQUATIONS FOR APPLICATIONS. Ordinary differential equations, numerical methods of solution, second order linear differential equations with singular points, special functions. (Some knowledge of computer programming is desirable.) Prerequisite: 260c.

321—4 ELEMENTARY LINEAR ALGEBRA. The arithmetic of matrices, determinants, and inverses; systems of linear equations; a first look at vector spaces, linear mappings, Euclidean spaces, and eigenvalue problems. Prerequisite: 150.

323—4 COMBINATORICS AND GRAPH THEORY. Deals with a variety of problems which are discrete in nature and covers the basic techniques used to solve them. The main topics are combinatorial reasoning, generating functions, recurrence relations, graphs, trees, graph algorithms. Prerequisite: 223 or equivalent.

365—4 INTRODUCTION TO NUMERICAL ANALYSIS. Sources of error; round-off and truncation, roots of equations, numerical integration; ordinary differential equations, interpolation. Prerequisite: 172.

373a—4 INTRODUCTION TO COMPUTER SYSTEMS. Provides an introduction to the internal logical structure and functioning of conventional computer systems. Basic computer structure is taught in the context of PDP-11 based system. Topics include machine language, addressing modes, data representations, data conversions, secondary storage devices operating system functions, assembly language and assemblers, subprogram linkage, linkers and loaders. Will include student experiments in the computer systems lab. Prerequisite: 270b.

373b—4 INTRODUCTION TO COMPUTER SYSTEMS. Provides an introduction to the internal logical structure and fuctioning of conventional computer systems. Basic computer structure is taught in the context of PDP-11 based system. Topics include machine language, addressing modes, data representations, data conversions, secondary storage devices, operating system functions, assembly language and assemblers, subprogram linkage, linkers and loaders. Will include student experiments in the computer systems lab. Prerequisite: 373a.

374—4 FUNDAMENTAL CONCEPTS OF COMPUTER SCIENCE. A survey of theoretical foundations of computer science: automata, formal languages, computability, correctness of algorithms. Prerequisites: 270c and 323.

380—4 STATISTICS FOR APPLICATIONS. A brief introduction to probability rules and probability distributions, treatment of data, inferences concerning means and proportions, regression, and analysis of variance. Prerequisite: 260a or consent of instructor.

400—3 HISTORY OF MATHEMATICS. A historical introduction to the development of selected mathematical concepts. Prerequisite: 260c or consent of instructor.

404—4 PASCAL PROGRAMMING. Covers the complete language. Illustrates top-down design and the use of procedures to achieve modularity. Not available for graduate credit to students in computer science and mathematics. Prerequisite: 172 or equivalent.

405—4 PROGRAMMING TECHNIQUES. Programming style, run-time behavior of programs, basic design methods, modularity. An introduction to linear data structures, linked lists and trees. Debugging and testing, documentation and program maintenance. Not available for graduate credit to students in computer science and mathematics. Prerequisite: 270b or 404.

406—4 INTRODUCTION TO COMPUTER ORGANIZATION AND PROGRAMMING. Number systems, computer arithmetic, character codes, computer hardware and software, job control languages, machine language, assembly language, assemblers. Not acceptable toward a master's degree in mathematical studies. Prerequisite: knowledge of at least one programming language.

410—8 (4,4) STATISTICAL ANALYSIS. Statistical methods not requiring the calculus. Includes (a) elements of probability, estimation, and testing hypotheses; (b) the general linear model (multiple linear regression, analysis of variance, analysis of covariance) and nonparametric statistics. May not be used to

satisfy requirements for a mathematics concentration. Three lectures and two laboratory hours per week. Must be taken in sequence. Prerequisite: GSM 144.

418—4 DETERMINISTIC MODELING FOR THE ENVIRONMENTAL SCIENCES. The study of mathematical modeling with applications in environmental sciences. Model construction; linear optimization; network analysis; PERT and CPM techniques; deterministic simulation of continuous systems; elements of CSMP. May not be taken for credit towards major or graduate concentration in mathematical studies. Prerequisite: 40 hours natural science, mathematics, or engineering, including MSCS 150b.

420—4 APPLIED ALGEBRA. An introduction to abstract algebraic structures and their applications. (a) Sets, relations, Boolean algebras, lattices, finite-state machines, groups, quotient groups, symmetry groups, Polya-Burnside method of enumeration. Prerequisite: 321 or consent of instructor.

421—8 (4,4) LINEAR ALGEBRA. Finite dimensional vector spaces and linear transformations with applications to physical and engineering problems. (a) Vector spaces, linear transformations, similarity and diagonalization, orthogonality, applications. (b) Normal forms of linear transformations, Jordan canonical form, matrix calculus, systems of linear differential equations, applications. Must be taken in sequence. Prerequisites: 321 or consent of instructor.

422—4 DISCRETE MATHEMATICS. Set theory, logic, induction, and an introduction to combinatorics and graph theory. May not be taken for credit by students who have completed the sequence MSCS 223, 323. Prerequisite: 321.

425—3 ELEMENTARY NUMBER THEORY. The divisibility of integers, linear and quadratic congruences, primitive roots, number theoretic functions, and the distribution of primes. Prerequisite: 321.

430—4 INTRODUCTION TO TOPOLOGY. Elements of set theory, metric spaces, mappings, convergence, completeness and compactness; applications. Prerequisites: 260c, 321.

435—4 TOPICS IN GEOMETRY. Topics are chosen from the following areas: foundations for Euclidean and non-Euclidean geometry; projective geometry; differential geometry; geometry of convex bodies. May be repeated with different topics for a maximum of 8 hours. Prerequisite: 260c and 321, or consent of instructor.

440—4 OPERATIONS RESEARCH—DETERMINISTIC MODELS. (Same as Engineering and Technology 458.)

441—4 OPERATIONS RESEARCH—STOCHASTIC MODELS. (Same as Engineering and Technology 460.)

442—4 OPERATIONS RESEARCH—SIMULATION. (Same as Engineering and Technology 474.)

450—8 (4,4) INTRODUCTION TO REAL ANALYSIS. (a) Real numbers, topology of R^n, continuity and differentiability of functions from R^m into R^n, (b) implicit function theorem, characterization of Riemann integrable function, uniform convergence. Must be taken in sequence. Prerequisites: 260c, 321.

461—4 ENGINEERING MATHEMATICS. Designed as a refresher-survey course. Review of ordinary differential equations, power series solution of differential equations, Laplace transforms, Fourier series, matrix algebra, solution of linear equations, eigenvalues of matrices. Prerequisites: 305 and consent of major department.

463—12 (4,4,4) ADVANCED CALCULUS FOR APPLICATIONS. (a) Review of ordinary differential equations; Power series solutions of differential equations; Legendre polynomials; Bessel functions; Laplace transform; divergence, curl, line and surface integrals, Gauss' and Stokes' Theorems. (b) Fourier series, partial differential equations; wave, heat, and Laplace equations. (c) Complex analytic functions, complex integrals. Taylor and Laurent series, integration by residues. May be taken in any sequence. May, with consent of instructor, be taken in any sequence. Prerequisites: (a) 260 and 305; (b) 463a; (c) 463b or consent of instructor.

465—8 (4,4) NUMERICAL ANALYSIS. An introduction to numerical methods with error analysis, solution of nonlinear equations, numerical differentiation and quadrature, numerical integration of ordinary and partial differential equations, solution of systems of linear algebraic equations, approximation theory, finite differences and interpolation, least squares curve fitting, eigenvalue problems. Must be taken in sequence. Prerequisites: (a) 260c and 270a; (b) 305 and either 365 or 465a and 321 or consent of instructor.

470—4 DATA STRUCTURES. A study of the characterizations, applications, and implementations of complex data structures. Implementation comparisons are made in terms of the efficiency of algorithms. Dynamic storage management techniques are studied. Prerequisites: 373 and 270.

471—4 ORGANIZATION OF PROGRAMMING LANGUAGES. A comparative study of programming languages and their implementations. The course will present and evaluate concepts common to languages and those concepts likely to dictate the future evolution of languages. Programming exercises will use several representative languages. Prerequisites: 270 and 373.

472—4 FILE STRUCTURES. Introduces concepts and techniques for structuring data on external storage devices and provides experience in the use of such devices. Topics discussed include sequential, relative, indexed, and hashed file types; B-trees; and data structures for lookup on nonkey fields. Prerequisites: 270, 373, and knowledge of COBOL.

473—4 INTRODUCTION TO COMPUTER ARCHITECTURE AND ORGANIZATION. Input/output concepts; register-

transfer view of a CPU and implementation of control by microprogramming; machine level variations; data types, procedure activation mechanisms, lexical level addressing; computer communications. Prerequisite: 373b.

474—4 SOFTWARE DESIGN AND DEVELOPMENT. Presents a formal approach to state-of-the-art techniques in software design and development. An integral part of the course is the involvement of students working in teams in the organization, management, and development of a large software project. Prerequisite: 470 and 471, or consent of instructor.

475—4 INTRODUCTION TO DATABASE SYSTEM STRUCTURE. An overview of a database system; physical data organization; data models including the network, hierarchical, and relational models; specific examples. Prerequisite: 472 or consent of instructor.

476—4 COMPILER CONSTRUCTION. An introduction to the basic ideas of translation of programming languages. Emphasis is on the techniques used in manual construction of compilers. Prerequisites: 471, 374, 470.

477—4 INTRODUCTION TO OPERATING SYSTEMS. Concurrent processes including mutual exclusion, synchronization, and deadlocks. Operating system structure. Memory management. File systems. Prerequisite: 473 or consent of instructor.

478—4 INTRODUCTION TO ARTIFICIAL INTELLIGENCE. Overview of LISP; heuristic search methods; selected topics from knowledge representation, machine learning, and expert systems. Prerequisite: 470 or consent of instructor.

479a—4 COMPUTER NETWORKS. Introduction to network structures and architectures, basic concepts of data communication, protocols. Both long-haul and local networks are covered. Prerequisite: 477 or consent of instructor.

479b—4 COMPUTER GRAPHICS. Introduction to interactive computer graphics. Topics covered include basic graphics programming, graphics hardware, the implementation of a graphics package, interaction devices and techniques, and the design of user-computer graphic conversations. Prerequisites: 321 and 470 or consent of instructor.

480—8 (4,4) INTRODUCTION TO MATHEMATICAL STATISTICS. A mathematical development of statistical theory. Probability models, distributions of random variables, sampling distributions, generating and characteristic functions, central limit theorem and limiting distributions, estimation of parameters, statistical hypotheses, nonparametric methods, linear models. Must be taken in sequence. Prerequisite: 260c.

481—4 APPLICATIONS OF STATISTICAL METHODS. Application of statistical concepts presented in 480, proper definition of problems, literature search, selection of appropriate statistical models, planning statistical studies, analysis and interpretation of data, including the use of packaged programs, and writing project reports. Prerequisite: 480 or concurren enrollment.

482—8 (4,4) LINEAR STATISTICAL MODELS FOR APPLI CATION. Aspects of multivariate analysis, linear regression analysis of variance and covariance, linear discriminant func tions, factor analysis and design of experiments. Prerequisite 480.

483—4 SAMPLE SURVEYS. Basic concepts of sampling stratified, multistage systematic and cluster sampling; design of surveys, sampling from imperfect frames. Data quality, validity and efficiency of sampling plans, analysis of data and presentation of results. Prerequisite: 480 or consent of instructor.

484—4 RELIABILITY THEORY AND PRACTICE. Probability models and statistical techniques useful in the study of reliability of products and their design, development, and production; special attention to data analysis for process controls. Prerequisite: 380 or 480 or consent of instructor.

485—4 AN INTRODUCTION TO STOCHASTIC PROCESSES. Applications of Markov chains, Markov processes with discrete states in continuous time, and examples of Markov processes in continuous time with continuous state space. Prerequisite: 480b or consent of instructor.

487—4 NONPARAMETRIC STATISTICS. Statistical inference using distribution-free tests and estimation procedures. Randomization, the sign test, signed-rank test, power robustness, relative efficiency, inferences concerning location based on two or more independent samples, inferences concerning scale parameters, association analysis, general distribution tests and goodness-of-fit, tests of randomness. Prerequisite: 480 or consent of instructor.

495—1 to 6 INDEPENDENT STUDY. Research and reading in a specified area of interest. (a) Algebra. (b) Geometry. (c) Analysis. (d) Probability and Statistics. (e) Mathematics Education. (f) Logic and Foundations. (g) Topology. (h) Computer Science. (i) Operations Research. (j) Numerical Analysis. May be repeated to a total of 24 hours so long as no topic is repeated and not more than 6 hours are accumulated in a single segment nor more than 12 in one quarter. Prerequisite: consent of adviser and instructor.

PHYSICS

100—1 INTRODUCTORY PHYSICS SEMINAR. Requirements and options within the physics curriculum, educational and employment opportunities for physics majors, and introduction to major areas of research in physics. Visitations of both basic and industrial research laboratories, and attendance at physics seminars. Team-taught by faculty of Department of Physics with invited outside lecturers. Graded on pass/no credit basis only. May be repeated for a total of 3 hours. Prerequisite: physics major or consent of undergraduate physics adviser.

206—15 (5,5,5) COLLEGE PHYSICS. Designed to meet premedical requirements and the needs of students majoring in the biological sciences. Laboratory. Must be taken in sequence. Prerequisite: GSM 144.

211—12 (4,4,4) UNIVERSITY PHYSICS. (a) Kinematics, dynamics, conservation of energy, linear momentum, angular momentum. (b) Oscillations, gravitation, fluids, wave theory, sound, electrostatics, potentials. (c) Circuits, magnetic fields, electromagnetic waves, geometrical and physical optics. Must be taken in sequence. Prerequisite: (a) MSCS 150b or concurrent enrollment; (b) 211a; (c) 211a,b.

212—2 (1,1) INTRODUCTORY PHYSICS LABORATORY. (a) Experiments in classical mechanics emphasizing physical measurements, data analysis and presentation, as well as simple error analysis. Measurements of velocities, acceleration, acceleration due to gravity, moments, gravitational, kinetic and heat energy, and simple harmonic motion. (b) A continuation of experiments in classical mechanics and classical electromagnetism. The latter includes electrical measurements and some simple circuit properties. One or two experiments in geometrical and/or physical optics. Prerequisites: (a) 211a, concurrent enrollment in 211b; (b) 211b, 212a, concurrent enrollment in 211c.

302—8 (4,4) MODERN PHYSICS. (a) Thermodynamics, special relativity, photoelectric effect, Planck's radiation theory, Compton effect. (b) Matter waves, the uncertainty principle, the Schrodinger solution for a confined particle, the hydrogen atom, atomic theory, nuclear and solid state physics. Must be taken in sequence. Prerequisites: (a) 211, MSCS 260a; (b) 302a.

304—4 THERMODYNAMICS AND KINETIC THEORY. A macroscopic study of the laws of thermodynamics. Thermodynamic potentials, Maxwell's relations and applications of thermodynamics to the study of the properties of matter including phase equilibria. Introduction to irreversible processes and kinetic theory. Prerequisite: 302a.

308—8 (4,4) INTRODUCTION TO CLASSICAL MECHANICS. Statics of a particle, of a rigid body, and of a flexible string; the principles of virtual work, motion of a particle in a uniform and in a central force field, simple harmonic motion, motion of a system of particles, rigid body motion in a plane; noninertial reference frames; generalized coordinates, Lagrange's and Hamilton's equations of motion; vibrating systems, normal coordinates, and wave motion. Prerequisites: (a) 211a,b, MSCS 260a; (b) 308a.

310—4 PHYSICAL OPTICS. Theory of interference and interferometers. Fresnel and Fraunhofer diffraction, Fourier transform theory of diffraction; velocity of light, polarization, electromagnetic theory of light applied to reflection and refraction in isotropic media and anistropic media; birefringence, optic axis, crystal optics, optical activity; theory of normal and anomalous dispersion, scattering of light by particles; quantum optics, lasers. Prerequisites: 211, MSCS 260a.

311—1 OPTICS LABORATORY. Advanced experiments in geometrical and physical optics. Two laboratory hours per week. Prerequisite: 310 or concurrent enrollment.

312—2 (1,1) INTERMEDIATE PHYSICS LABORATORY. (a) A continuation of experiments in classical physics including physical and geometrical optics, thermodynamics and an introduction to experiments in modern physics. (b) A continuation of experiments in modern physics including the photoelectric effect, measurement of e/m, Millikan oil drop experiment, half-life measurements of radioactive isotopes and the Frank-Hertz experiment. Prerequisites: (a) 211c, 212b, concurrent enrollment in 302a; (b) 302a, 312a, concurrent enrollment in 302b.

320—4 SPECIAL RELATIVITY. An introduction to Einstein's Theory of Special Relativity. Develops the notion of space and time and treats relativistic kinematics, dynamics, and electromagnetism. Prerequisites: 211, MSCS 260a.

375—1 SEMINAR. Topics selected from a wide range of physical theories and applications. One hour per quarter with a maximum of 3 total hours; graded on a Pass/No Credit basis only. Prerequisite: consent of instructor.

390—1 to 15 PHYSICS HONOR PROJECT. Honors work in physics mostly in the junior and/or senior years. Entrance by invitation of any member of the Physics Department. Prerequisite: 405a.

404—4 INTRODUCTION TO STATISTICAL MECHANICS. Introduction to phase space and ensemble theory. Statistical interpretation of thermodynamic processes. Maxwell-Boltzmann, Bose-Einstein, Fermi-Dirac statistics, and applications. Systems of interacting particles. Prerequisites: 302, 304 and 308.

405—8 (4,4) INTRODUCTION TO ELECTROMAGNETIC FIELD THEORY. Vector treatment of the theory; electrostatics in vacuum and in matter, steady currents, magnetism, magnetic materials, and electromagnetic radiation. Must be taken in sequence. Prerequisites: (a) 211c, MSCS 260a; (b) 405a.

415a—4 WAVE MECHANICS. Cites the evidence for a need of new "quantum theory." Considers the Schroedinger equation, and the Born interpretation of the wave function. Develops the theory of quantum harmonic oscillators, the rigid rotator and hydrogen-like atoms. Develops perturbation theory and a description of radiation from atomic systems. Prerequisites: 302b, MSCS 305.

415b—4 ATOMIC PHYSICS. Exploits the theoretical considerations developed in 415a by considering their application to the study of atomic and molecular systems. Prerequisite: 415a.

415c—4 NUCLEAR PHYSICS. A systematic discussion of the properties of the atomic nucleus. Examples of the application of wave mechanics to the study of the nucleus. A consideration of

nuclear forces, subnuclear particles, and nuclear models. Prerequisite: 415a.

418—2 ADVANCED PHYSICS LABORATORY. An advanced laboratory course to include experiments chosen from nuclear spectroscopy, semiconductor physics, x-ray diffraction, optical spectroscopy, materials preparation techniques, nuclear magnetic resonance, and work with lasers and optical detectors. May be repeated to a maximum of 4 hours so long as no experiment is repeated. Prerequisites: 302b, 312b.

419—4 INTRODUCTION TO THEORETICAL PHYSICS. Discussion and application of a variety of mathematical techniques to problems selected from the area of theoretical physics. (a) Treatment of solutions of the homogeneous partial differential equations of theoretical physics in the presence of boundaries. Prerequisites: 302, MSCS 305.

420—2 to 4 SPECIAL EXPERIMENTAL PROJECTS. Each student is assigned to a definite investigative topic. Adapted to advanced undergraduate students. May be repeated to total of 6 hours. Prerequisites: 308, 405.

421—2 to 4 SPECIAL THEORETICAL PROJECTS. Assignment to specific theoretical topics. Adapted to advanced undergraduate students. May be repeated to total of 6 hours. Prerequisites: 308, 405.

450—4 INTRODUCTION TO SOLID-STATE PHYSICS. Crystal structure. Crystal binding. Lattice vibrations and thermal properties of crystals. Electronic states and energy band theory. Other selected topics. Prerequisite: 415.

480—2 to 4 SELECTED TOPICS IN PHYSICS. Topics of special interest. May be repeated to a total of 6 hours. Lecture format. Prerequisite: consent of instructor.

SCIENCE AND TECHNOLOGY

401—3 to 6 CLASSICAL MECHANICS. A systematic treatment of mechanics which assumes only a modest background in algebra. Emphasis on those concepts which historically were defined for mechanical systems but which have proven important in all areas of physics. Primarily for teachers of the physical sciences. Subject matter is related to texts and material available in most secondary schools. May be repeated to maximum of 10 hours.

403—3 to 6 EXPERIMENTS AND TECHNIQUES OF PHYSICS. Conducting of experiments and consideration of equipment for teaching physics. Lectures on experimental techniques. May be repeated to a maximum of 10 hours.

409—2 to 8 HISTORY OF CHEMISTRY. Studies in the history of chemistry. The topic to be covered is announced by the department. May be repeated to a maximum of eight hours so long as topics are not repeated. Prerequisite: consent of instructor.

416—2 to 5 INDEPENDENT STUDY IN SCIENCE EDUCATION. Each student is assigned material and studies under supervision in an area of science education. Selection of topics is based on needs of student. May be repeated to a maximum of 10 hours. Prerequisite: consent of adviser.

421—4 BASIC CONCEPTS OF CHEMISTRY. A general background in chemistry. A body of chemical principles with emphasis on the existence, size, structure, and bonding of atoms. Four lecture hours per week.

429—6 (1,1,1,1,1,1) TOPICS IN CHEMISTRY. Short courses focusing on a particular topic: (a) Origins of Elements, Molecules, and the Earth's Atmosphere; (b) Hazardous Substances; (c) Acid-Base Theories; (d) Chemistry of Air Pollution; (e) Problem-Solving in the Physical Sciences; (f) Seminar for Chemistry Teachers. No more than 1 hour of credit may be received in each of the courses. Prerequisite: consent of chairperson of Department of Chemistry.

441—3 MODERN ORGANIC CHEMISTRY. Stereochemistry, spectroscopy, mechanisms, and review of fundamental concepts (hybridization, functional groups, nomenclature). Laboratory; use of spectroscopy and chromatography to characterize compounds prepared by students. Intended primarily for continuing education courses. Prerequisite: consent of chairperson of Department of Chemistry.

480—1 to 6 SPECIAL TOPICS IN PHYSICAL SCIENCE TEACHING. Topics of special interest in teaching of physical science. Combined lecture and/or laboratory format. May be repeated to a maximum of 10 hours as long as no topic is repeated. Prerequisite: consent of department chairperson.

SCHOOL OF SOCIAL SCIENCES

ANTHROPOLOGY

301—4 LANGUAGE AND CULTURE. An introduction to relationships between language and culture. An examination of the development of language and culture as human characteristics, a consideration of diversity and universals in language and culture, and an introduction to sociolinguistics and the ethnography of communication. Prerequisite: introductory anthropology course or consent of instructor.

305—8 (4,4) PEOPLES AND CULTURES OF THE WORLD. (a) Peoples of North America. How Indians first came to North America, a survey of their prehistoric cultures, how they lived when first contacted by Euroamericans. Native American cultures and contemporary economic, social, religious, and political problems. (b) Asia. Geography, history, cultural and social organization of peoples of Asia, with special emphasis on South Asia.

307—4 CULTURES OF LATIN AMERICA AND THE CARIBBEAN. Social and cultural aspects of contemporary Mexico, Central America, South America, and the Caribbean viewed in their historical and environmental contexts.

311—4 CULTURE OF BLACK AMERICANS. An overview of the shaping influences of the cultural communities of Black Americans; black institutions: the family, religion, and political movements in the context of American society. Included is a view of Katherine Dunham and her work in the East St. Louis community. Prerequisite: consent of instructor.

325—4 ARCHAEOLOGICAL METHOD AND THEORY. A general overview of current method and theory in American archaeology. A review of major historical development in both Old and New World archaeology and an introduction to basic archaeological methods in dating, soil analysis, archaeological survey and excavation, archaeo-mineralogy, archaeo-zoology, and archaeo-botany. The theoretical portion deals with various approaches to the analysis of archaeological materials, the nature of archaeological data, sampling, settlement pattern studies, typology, systems theory, ethnoarchaeology and socio-cultural evolution. A final portion is concerned with recent developments in the area of cultural resource management.

330—4 ARCHAEOLOGY OF NORTH AMERICA. An introduction to the prehistoric Indian cultures of North America with particular emphasis on the cultures of the Mississippi valley. The course is designed for those with amatuer archaeological interests as well as professional interests and emphasizes both material and non-material aspects of cultures through time.

367—4 GROWTH OF NEW WORLD CIVILIZATION. Origins and development of civilizations in the New World with emphasis on the Olmec, Mayan, Teotihuacanan, Toltec, Aztec, and Incan cultures. Emphasis is also directed toward the conquest of the Aztec and Inca by the Spanish.

373—4 to 8 COMMUNITY FIELD STUDIES. Directed field research in a setting chosen by the instructor, including a treatment of the methods of research design, interviewing, and participation, as well as of compiling and analysis of data. Discussion of ethical and practical problems of ethnographic field work. May be repeated for a total of eight hours. Prerequisite: GSS 210 or consent of instructor.

375—4 to 8 INTRODUCTION TO FIELD METHODS. An introduction to field methods in anthropology. Archaeological Field Methods including site survey and evaluation techniques, excavation and data recording, lab methods and interpretation. Prerequisite: GSS 210 or consent of instructor.

400—4 CULTURAL ANTHROPOLOGY. How anthropologists work in the field and use the concept of culture. Cross-cultural study of the basic components of culture, including language, economics, political organization, marriage and family, religion, and applied anthropology.

401—4 ANTHROPOLOGICAL LINGUISTICS. (See English 400.) A survey of linguistic concepts and theories. Recommended for anthropology students, linguistic students, and those preparing to teach English.

404—4 ANTHROPOLOGY AND THE ARTS. Anthropological approach to the arts. Consideration of the origins of art and evidence for art in early human history. Introduction to the graphic and plastic arts, and ethnomusicology, choreology, and folklore among selected non-Western cultures.

405—4 KINSHIP AND KIN GROUPS. A comparative approach to the basic organization of small societies. Functional aspects and distributions of kinship and kin groups.

407—4 PRIMATOLOGY. Introduction to various aspects of primate evolution, behavior (ethology), physiology and ecology. Special consideration to development of locomotion and other motor skills, evolution of the brain, and recent developments in understanding of primate communication and associated cognitive processes. Prerequisite: GSS 210.

408—4 HISTORY OF ANTHROPOLOGICAL THOUGHT. A survey of the historical development of anthropology as a discipline. Consideration of the major schools of thought and important shifts in theory, method and problem definition. Readings of selected anthropological classics and contemporary thought as reflected in current journals. Prerequisite: junior standing or consent of instructor.

409—4 APPLIED ANTHROPOLOGY. How anthropologists use their science to solve practical problems in agriculture, health, education, and industry. Case studies of human reaction to technological change and new ecological niches. Review of the role of anthropology in economic development and global problems of today.

410—4 ANTHROPOLOGY OF RELIGION. The study of religion as one aspect of a culture. Historical and contemporary perspectives on religion in a wide variety of cultures will be presented. Prerequisite: GSS 210 or consent of instructor.

411—4 URBAN ANTHROPOLOGY. A comparative approach to cities, focusing on people in urban environments. Topics are: history of urban development, urban lifestyles and public places and rituals, social and ethnic groups and networks, poverty, and neighborhood rehabilitation. Includes field trips and/or speakers from urban community programs. Prerequisite: GSS 210 or consent of instructor.

415—8 (4,4) DANCE ANTHROPOLOGY. (Same as Theater 415.) (a) Methods of research used in documenting and analyzing the total complex of dances in Haiti. A study of the various dances in Haiti relative to their form, function, and basic cultural interpretations. Community research and the methodology of extracting information concerning dance, music, and cult religions. (b) Research methodology as it pertains to West Africa and the psycho-pathological implications of ceremonial healing. A study of choreography. Prerequisite: consent of instructor.

416—4 CULTURE CHANGE. The ways that people's life styles change, through evolution, diffusion and innovation are

considered, with theories of change and methods of studying change being presented.

420—4 MUSEUM TECHNOLOGY (MUSEOLOGY). An understanding of museums as a particular kind of institution that has evolved within the framework of Western European cultural and political history. Concentration on dynamics of museum history and shifting roles, functions, philosophies and continuing education of museums. Practical experience in developing and constructing exhibits. Prerequisite: consent of instructor.

424—4 CULTURE AND PERSONALITY. A cross-cultural comparison of personality, with emphasis on the socialization of the child, types and variants of "normal" adult personality and of abnormality, including its definition. Prerequisite: junior standing or consent of instructor.

426—4 THE FAMILY IN CROSS-CULTURAL PERSPECTIVES. Emphasis is on North American families in historical and cross-cultural perspective. Techniques of oral and family history documentation are described and practiced through class projects, and the family experiences of ethnic groups are studied through class readings, speakers, and discussion. Prerequisite: GSS 210 or consent of instructor.

432a—4 THE PREHISTORY OF ILLINOIS. A survey of prehistoric cultural developments in Illinois with emphasis on events leading to the climax of the Mississippian culture at Cahokia. Extensive utilization of slides, collections in archaeological laboratory and displays in the anthropology teaching museum provide material for an in depth understanding of cultural changes in the midwest between 12,000 B.C. and 1500 A.D.

432b—4 SOUTHWESTERN ARCHAEOLOGY. A survey of prehistoric-historic cultural developments in the southwestern United States with emphasis on Pueblo culture. Consideration to Mogollon and Hohokam cultures, the Mesoamerican base, theory, and the use of analogy in archaeological reasoning. Prerequisite: 330 or consent of instructor.

442—4 HUMAN ECOLOGY. Systematic consideration of human-habitat relationships, especially concerned with cultural adaptations. Problems related to environmental change, migration, and population growth, technological and institutional changes; attitudes toward change and perception by people of problems involved in modifying their traditional habits and values. Prerequisite: sophomore standing or consent of instructor.

452—4 POLITICAL ANTHROPOLOGY. Cross-cultural comparison of political systems with emphasis on non-European peoples: functional relations between politics and society; the growth of political complexity; and systems of authority and leadership. Prerequisites: junior standing, consent of instructor.

470—4 SPECIAL TOPICS IN ANTHROPOLOGY. Focus on a limited subject area on the frontiers of anthropology. Investigation of significant problems and issues which are not treated in other course offerings. Content varies with each offering and is announced in advance. May be repeated for a maximum of 12 hours as long as no topic is repeated. Prerequisite: GSS 210 or consent of instructor.

473—4 ADVANCED COMMUNITY FIELD STUDIES. Advanced ethnological field methods; field sites vary according to instructor—American Indian reservations, rural communities, and urban settings. Undergraduates limited to no more than 16 hours of field experience (375 and/or 475). Prerequisite: 373 or consent of instructor.

475—4 ADVANCED FIELD METHODS. Advanced field methods in anthropology: (a) advanced archaeological field methods with emphasis on new techniques for recovery of information. Prerequisite: 375a or consent of instructor.

483—1 to 8 INDIVIDUAL STUDY IN ANTHROPOLOGY. Guided research on anthropological problems. Consult department chairperson before enrolling.

EARTH SCIENCE

201—4 INTRODUCTION TO PHYSICAL GEOLOGY. Introduction to the structure and composition of the earth and the physical and chemical processes responsible for modifying the earth and its surface. Laboratory. Prerequisites: Chemistry 105 or equivalent. GSM 111 recommended.

202—4 PHYSICAL — HISTORICAL GEOLOGY. This course is to acquaint the student with the basic principles of geomorphology, oceanography, the occurrence of mineral fuels, and the introductory portions of historical geology. Laboratory. Prerequisite: 201.

203—4 HISTORICAL GEOLOGY. The course imparts an introductory level knowledge of the formation of the earth, and its relationship to the rest of the universe; the evolution of life, extinctions of many life forms, the paleogeography (and plate tectonics) of the past, and the distribution of mineral resources, according to time and geographic regions. Laboratory. Prerequisite: 202.

215—4 MINERALOGY. An introduction to the occurrence of important and common minerals, their descriptions, properties, and identification. The crystalline state of minerals including morphology, habit, and crystal chemistry. One weekend field trip required. Laboratory. Prerequisites: 201; Chemistry 125, 126.

216—4 MINERALOGY — PETROLOGY. An introduction to the occurrence of important and common minerals, their descriptions, properties, and identification. The crystalline state of minerals including morphology, habit, and crystal chemistry. The natural history of rocks. Geological, physical, and chemical factors governing their origin and occurrence. Description and

identification of common types. One weekend field trip required. Laboratory. Prerequisite: 215.

217—4 PETROLOGY. The natural history of rocks. Geological, physical, and chemical factors governing their origin and occurrence. Description and identification of common types. One weekend field trip required. Laboratory. Prerequisite: 216.

230—3 ENGINEERING GEOLOGY. Geological principles governing the solution of civil engineering problems which are connected with the use and occurrence of rocks, minerals, soils, and water in the design and construction of engineering works. Prerequisite: Physics 211a.

302—4 INTRODUCTION TO PHYSICAL GEOGRAPHY. A study of the earth's physical surface, world distribution patterns of the physical elements, their relationships to each other, and their importance to man. Field trip and laboratory work. Prerequisite: GSM 111. 201 recommended.

303—4 METEOROLOGY. (Same as Geography 303.) An introduction to weather elements, condensation process, air masses, cyclonic activity, and weather movements. Laboratory. Prerequisite: GSM 110 or 213.

307—4 CLIMATE. (Same as Geography 307.) A study of the major climates of the world with special emphasis on the climates of the United States. Laboratory. Prerequisite: GSM 110 or 213.

308—4 INTRODUCTION TO GEOGRAPHIC METHODS. Designed to introduce the geographic methods of integrating physical, economic, and cultural elements in the study of areas. Cartographic and quantitative techniques utilized. Prerequisite: GSS 240 or consent of instructor.

310a—4 INTRODUCTION TO CARTOGRAPHIC METHODS. (Same as Geography310a.) An introduction to the process of map making with an emphasis on map properties, design and production. Introduction to the use of drafting equipment.

310b—4 MAP READING, ANALYSIS AND INTERPRETATION. (Same as Geography 310b.) Emphasis on cartographic symbology, survey systems, horizontal and vertical position, direction, distance and cartometrics. Development of map skills with respect to U.S.G.S. topographic quadrangles.

316—2 THE GEOGRAPHY AND GEOLOGY OF NATIONAL PARKS. (Same as Geog 316.) A survey of selected United States and Canadian National Parks. Geological diagrams, maps, slides, films and other visual/graphic aids provide a basic background for the spectacular examples of geographic and geological phenomena that have been preserved and made available to all the public. A variety of park types will be examined where the theme is unique landforms, historical events and/or significant ecological situations. Prerequisite: GSM 111 recommended.

325—4 STRUCTURAL GEOLOGY. Architecture of the earth, especially its crust and the rock bodies within it. Global plate tectonics. Mechanics of rock deformation. Mapping and measurement of rock structures. Laboratory. One weekend field trip or field project required. Prerequisite: 217.

375—4 FIELD METHODS IN GEOLOGY. An elementary course in geologic field techniques and methods. The classwork is done in the field in southern Illinois over weekends. Prerequisite: 325.

400—4 THE EARTH IN SPACE. Planetary and stellar composition and structure; energy sources and arrangements of the universe as to position, size, dimensions, age, origin, and evolution. Laboratory. Prerequisite: GSM 110.

402a—4 SOILS. (Same as Geography 402a.) Designed to introduce surficial material from the viewpoint of the soil scientist, geographer and geologist. Examination of soil properties in the field. Study of the soil taxonomic classification system. Prerequisite: GSM 111 or consent of instructor.

402b—4 CLIMATOLOGY. (Same as Geography 402b.) A special topics course which emphasizes site (micro) climatology and meterology. Application of air pollution problem areas and solar heating are stressed. Prerequisite: 303 or 307 or consent of instructor.

402c—4 HYDROLOGY. (Same as Geography 402c.) The hydrologic cycle, major stream systems, hydrologic aspects, and the uses of water resources and their relationship to quality and future supplies. Prerequisite: junior status.

403a—4 PRINCIPLES OF GEOMORPHOLOGY. Processes and structures influencing the shape of the land surface. Prerequisite: 202 and 203. GSM 111 recommended.

403b—4 REGIONAL GEOMORPHOLOGY OF THE EASTERN UNITED STATES. Description, origin, and geomorphic history of the natural landform regions of the United States from interior lowlands east. Prerequisite: 403a or 325 or consent of instructor.

403c—4 REGIONAL GEOMORPHOLOGY OF THE WESTERN UNITED STATES. Description, origin, and geomorphic history of the natural landform regions of the United States from the Great Plains west. Prerequisite: 403a or 325 or consent of instructor.

410a—4 QUANTITATIVE METHODS. (Same as Geography 410a and Planning 410a.) Statistical techniques and introduction to computer programming with stress on the spatial element of measurement. Topics are selected from descriptive, correlation and inferential analyses and parametric and nonparametric tests of reliability. Computer skills include introduction to Fortran computer language, SPSS package programs, and interactive terminals. Prerequisite: GSM 144 or consent of instructor.

410b—4 REMOTE SENSING OF THE ENVIRONMENT. (Same as Geography 410b and Planning 410b.) Introduces the physical phenomena involved in identifying objects at a distance. Numerous applications of remote sensing are discussed including those relevant to: agriculture, geology, forestry, urban planning and meteorology. Sensing types of particular interests are: landstat imagery high altitude infrared photographs and radar imagery. Lecture and lab format is employed. Prerequisite: GSM 111 or junior standing.

416a—4 STATISTICAL MAPPING. (Same as Geography 416a.) This course focuses on cartographic analysis of problems related to data conversion into quantitative symbology, effective map design, and map drafting. Prerequisite: 310a.

416b—4 COMPUTER MAPPING. (Same as Geography 416b.) Utilizes the computer's capability to produce maps. Emphasis on interactive computer systems to produce the design and patterns necessary to complement, or in some cases, replace traditional cartography in representing geographical features. Computer routines to produce graphs are also utilized. Prerequisite: 310a.

417—4 AIR PHOTO INTERPRETATION. Techniques in the use of air photos as source material for research in the physical and social sciences. Laboratory. Prerequisites: 310a and 310b or consent of instructor.

418—4 PRODUCTION CARTOGRAPHY. (Same as Geography 418). This course examines the mechanics and content of graphic communication. As designers, cartographers must deal with the limitations imposed by various printing processes, styles of type, typesetting, photography, and platemaking in order to relate graphic images to the mechanics of production. Prerequisite: consent of instructor.

423—4 TERRAIN ANALYSIS. (Same as Geography 423.) Location and interpretation of regolith and bedrock features by means of aerial photographs, remote sensing imagery, and U.S. Geological Survey quadrangle maps. Recognition of various soil and rock types and their suitabilities for site development and judicious land utilizations. Prerequisite: junior standing or permission of instructor.

424—4 REGIONAL PROBLEMS IN CONSERVATION. The distribution, use, and interrelationship of the resources of the U.S. and the conservation techniques applied to them. Field study of selected cases.

441—4 PALEONTOLOGY. The study of fossil invertebrates from the standpoint of evolution and taxonomy. Study and identification of specimens is stressed. Laboratory. Prerequisite: 203. GSM 111 recommended.

442—4 PRINCIPLES OF STRATIGRAPHY. The study of sedimentary rocks, their classification, environments of deposition, and the rules and practice of stratigraphy. Prerequisite: 203. GSM 111 recommended.

444—4 TEACHING OF EARTH SCIENCES. (Same as Secondary Education 444.) The objectives of earth science education with emphasis on methods, skills, and techniques of instruction in lectures and laboratories. Prerequisite: junior standing.

450—3 to 15 TRAVEL STUDY COURSE. Enrichment through travel, supervised study, and reading on areas visited. May be repeated for a total of 15 hours.

471—4 REGIONAL ENVIRONMENTAL PLANNING. (a) Regional planning.

485—4 FIELD STUDY OF ENVIRONMENTAL PROBLEMS. (Same as Geography 485). Field investigation of physical features of the environment and problems relating to the man's use of the natural environment and resources. Prerequisite: advanced standing.

490—1 to 4 (8 total) TUTORIAL IN EARTH SCIENCE. Individual and small group conferences with staff members to examine earth science concepts.

GEOGRAPHY

302—4 INTRODUCTION TO PHYSICAL GEOGRAPHY. (Same as Earth Science 302.)

303—4 METEOROLOGY. (Same as Earth Science 303.) An introduction to weather elements, condensation process, air masses, cyclonic activity, and weather movements. Prerequisite: GSM 110 or GSM 213.

304—4 INTRODUCTION TO ECONOMIC GEOGRAPHY. Study of the spatial distribution and interaction of economic activities. Introduction to locational theory. Prerequisite: GSS 150. Economics 201 highly recommended.

306—4 INTRODUCTION TO CULTURAL GEOGRAPHY. An overview of the geographic viewpoint in the study of the human occupance of the earth. Aspects of population, settlement, and political geography, and a generalized survey of major world culture areas.

307—4 CLIMATE. (Same as Earth Science 307.) A study of the major climates of the world with special emphasis on the climates of the United States. Prerequisite: GSM 110 or GSM 213.

308—4 INTRODUCTION TO GEOGRAPHIC METHODS. (Same as Earth Science 308.) Designed to introduce the geographic methods of integrating physical, economic, and cultural elements in the study of areas. Cartographic and quantitative techniques are utilized. Prerequisite: GSS 240 or consent of instructor.

310a—4 INTRODUCTION TO CARTOGRAPHIC METHODS. (Same as Earth Science 310a.) An introduction to the

process of map making with an emphasis on map properties, design and production. Introduction to the use of drafting equipment.

310b—4 MAP READING, ANALYSIS AND INTERPRETATION. (Same as Earth Science 310b). Emphasis on cartographic symbology, survey systems, horizontal and vertical position, direction, distance and cartometrics. Development of map skills with respect to U.S.G.S. topographic quadrangles.

316—2 THE GEOGRAPHY AND GEOLOGY OF NATIONAL PARKS. (Same as Earth Science 316.) Prerequisite: GSM 111 recommended.

400—4 THE EARTH IN SPACE. (Same as Earth Science 400.)

402a—4 SOILS. (Same as Earth Science 402a.) Designed to introduce surficial material from the viewpoint of the soil scientist, geographer and geologist. Examination of soil properties in the field. Study of the soil taxonomic classification system. Prerequisite: GSM 111 or consent of instructor. ESCI 201 recommended.

402b—4 CLIMATOLOGY. (Same as Earth Science 402b.) A special topics course which emphasizes site (micro) climatology and meterology. Application of air pollution problem areas and solar heating are stressed. Prerequisite: 303 or 307.

402c—4 HYDROLOGY. (Same as Earth Science 402c.) The hydrologic cycle, major stream systems, hydrologic aspects, and the uses of water resources and their relationship to quality and future supplies. Prerequisite: junior status.

403a—4 PRINCIPLES OF GEOMORPHOLOGY. (Same as Earth Science 403a.)

403b—4 REGIONAL GEOMORPHOLOGY OF THE EASTERN UNITED STATES. (Same as Earth Science 403b.)

404a—4 URBAN GEOGRAPHY. (Same as Planning 404a.) This course is concerned with cities at two levels of generalization: distributions of cities and organization of space within cities. Descriptions of these distributions are followed by analyses and the search for order. These analyses incorporate information and concepts from many relevant disciplines in the social and physical sciences. The focus is primarily on the North American realm although some cross-cultural comparisons are made.

404b—4 COMMERCIAL LOCATION AND DEVELOPMENT. (Same as Planning 404b.) An analysis of factors relating to the location of commercial and service activities in terms of where they are located and why they are where they are. Community actions that can influence the pattern of commercial development will be investigated.

404c—4 RESOURCE USE AND MANAGEMENT. (Same as Planning 404c.) Fundamental concepts of natural resource creation, development and use; cultural, technological and socio-political goals in resource development; regional, national and international economic issues involved in the theory and application of resource adequacy, allocation and conservation.

405a—4 AREA ECONOMIC DEVELOPMENT. (Same as Planning 405a.) An examination of the actions that can be taken by areas to influence the location of economic activities with particular emphasis on manufacturing activities. Topics include area preparation, area promotion and area involvement.

405b—4 TRANSPORTATION GEOGRAPHY AND DEVELOPMENT. (Same as Planning 405b.) Survey of the impact of transportation modes, rates and networks on the spatial distribution of economic and cultural activities. This impact is examined at the regional and local scale. Urban transportation and neighborhood circulation patterns are analyzed from the perspective of area community development and growth.

406a—4 GEOGRAPHY OF WORLD POPULATION. An examination and analysis of World population patterns, migrations, and food supply systems. Special consideration is given to hunger and famine. Prerequisite: junior standing.

406b—4 GEOGRAPHIC POPULATION ANALYSIS. An examination of population characteristics with particular emphasis on methodologies essential for geographical analysis, forecasting, planning, and community/area development. Measures of population composition, fertility and mortality rates. Migration and mobility will be utilized. Prerequisite: junior standing.

407a—4 HISTORICAL GEOGRAPHY. Description and analysis of the processes of exploration and discovery in the settlement of North America chiefly through the literature and maps contemporaneous to the period. Prerequisite: junior standing.

407b—4 THE HISTORICAL LANDSCAPE. An examination of the origins and of the preservation of both rural and urban landscapes. Particular emphasis is given to the built environment including houses, bridges and factories. The unique and vernacular examples are related to developmental processes shaping the total landscape. Field trips are an integral part of the course. Prerequisite: junior standing.

410a—4 QUANTITATIVE METHODS. (Same as Earth Science 410a and Planning 410a.) Prerequisite: GSM 144 or consent of instructor.

410b—4 REMOTE SENSING OF THE ENVIRONMENT. (Same as Earth Science 410b and Planning 410b.) Prerequisite: GSM 111 or junior standing.

412—1 ILLINOIS CONSERVATION PROBLEMS. Such problems as water, land use, air, mineral use, recreation and waste disposal.

416a—4 STATISTICAL MAPPING. (Same as Earth Science 416a.)

416b—4 COMPUTER MAPPING. (Same as Earth Science 416b.) Utilizes the computer's capacity to produce maps. Emphasis on interactive computer systems to produce the design and patterns necessary to complement or, in some cases, replace traditional cartography in representing geographical features. Computer routines to produce graphs are utilized, also. Prerequisite: 310a.

417—4 AIR PHOTO INTERPRETATION. (Same as Earth Science 417.)

418—4 PRODUCTION CARTOGRAPHY. (Same as Earth Science 418).

423—4 TERRAIN ANALYSIS. (Same as Earth Science 423.)

424—4 REGIONAL PROBLEMS IN CONSERVATION. (Same as Earth Science 424.)

443—4 TEACHING OF GEOGRAPHY. (Same as Secondary Education 443.) Presentation and evaluation of methods of teaching geography. Emphasis upon geographic literature, illustrative materials, and teaching devices suitable to particular age levels.

450—3 to 15 TRAVEL STUDY COURSE. (Same as Earth Science 450.)

461—8 (4,4) GEOGRAPHY OF ANGLO-AMERICA. (a) Anglo America—Tropical. Physical, cultural, and economic coverage. (b) Anglo America-Regional. Treatment of specific areas.

462—8 (4,4) GEOGRAPHY OF EUROPE. (a) Topical. Physical, cultural, and economic coverage. (b) Europe-Regional. Treatment of specific areas.

463—7 (4,3) REGIONAL GEOGRAPHY OF MEDITERRANEAN LANDS AND SOUTHWESTERN ASIA. (See Geography 462.)

464—7 (4,3) REGIONAL GEOGRAPHY OF SOVIET WORLD. (See Geography 462.)

465—7 (4,3) REGIONAL GEOGRAPHY OF AFRICA. (See Geography 462.)

466—4 (4,3) REGIONAL GEOGRAPHY OF ASIA. (See Geography 462.)

467—8 (4,4) GEOGRAPHY OF LATIN AMERICA. (a) South America. Physical, cultural, and economic coverage. (b) Middle America and Caribbean. Physical, cultural, and economic treatment.

470—16 (4,4,4,4) URBAN PLANNING. (a) History of planning, (b) planning and politics, (c) planning and housing, (d) planning problems.

471—8 (4,4) REGIONAL ENVIRONMENTAL PLANNING. (Same as Earth Science 471.)

472—2 to 12 PLANNING INTERNSHIP. Work experiences in various planning agencies, both public and private, located anywhere in Illinois or nearby states. Senior and graduate students are screened for these internships. For major concentrations only. Prerequisite: senior or graduate standing.

480—4 WORKSHOP IN THE TEACHING OF GEOGRAPHY. The geographic approach to man's activities in various cultural, economic, and political geography problems. Skills, techniques, and visual materials essential to the teaching of geography.

485—4 FIELD STUDY OF ENVIRONMENTAL PROBLEMS. (See Earth Science 485). Prerequisite: advanced standing.

490—1 to 4 (8 total) TUTORIAL IN GEOGRAPHY. Individual and small group conferences with staff members to examine geographic concepts.

GOVERNMENT

200—4 INTRODUCTION TO POLITICAL SCIENCE. A general introduction to the study of politics with emphasis on contemporary theories for ordering political systems, the institutions of government and their processes, and the social roots of political behavior.

201—2 POLITICAL TOPICS. This course provides the general student with some analysis of an important political issue/problem and demonstrates how politcal scientists address such issues. Does not count toward a major or minor in Government.

203—4 AMERICAN NATIONAL GOVERNMENT AND POLITICS. A study of the theory, organization, and operation of American national government and its social context. Meets State Constitution requirements.

301—2 POLITICAL SCIENCE TOPICS. This course provides students of politics the opportunity to pursue analysis of a single politcal topic which falls outside of, or overlaps, normal course boundaries. May be repeated to a total of 4 hours. No more than 4 hours may be counted toward a major or minor in Government. Prerequisites: 200, 203.

310—4 INTRODUCTORY SOCIAL STATISTICS. An introduction to descriptive and inferential statistics. Among the topics covered are: frequency distributions and their graphic representations, the normal curve, measure of central tendency and dispersion, measures of association, the tabular presentation of multivariate data, probability, estimation and hypothesis testing.

320—4 INTRODUCTION TO PUBLIC ADMINISTRATION.

A study of principles and problems of administrative organization and co-ordination, personnel and fiscal management, regulatory administration, and public responsibilities of administrative agencies. Prerequisite: 203.

321—1 to 6 READINGS IN GOVERNMENT. Prerequisite: consent of instructor.

330—4 ILLINOIS GOVERNMENT. The development and functioning of government in Illinois.

340—12 (4,4,4) AMERICAN POLITICAL INSTITUTIONS. (a) The American Chief Executive. A review of the legal, political, and administrative responsibilities of the chief executive in national, state, and local political units in the United States, with emphasis on the national level. (b) The American Legislative Process. An investigation of the legislative organization and processes in Congress and state legislatures. (c) The American Judicial System. A survey of the nature, purposes, and limitations of law as administered and interpreted by courts. The development, organization, and operation of the American judicial system with emphasis on the federal level. Prerequisite: 203.

342—4 ISSUES IN AMERICAN PUBLIC POLICY. A study of domestic public policy in the United States. Major emphasis on the substantive results produced. Such policy areas as poverty, civil rights, education, the regulation of business, labor and agriculture.

343—4 AMERICAN STATE GOVERNMENTS. An examination of the role of the states in the federal system and a survey of the governmental processes within the fifty states. Prerequisite: 203.

344—4 LOCAL GOVERNMENT IN THE UNITED STATES. A survey of the structure, functions, and problems of the counties, municipalities, towns, townships, and special districts in the United States. Prerequisite: 203.

345—8 (4,4) AMERICAN POLITICAL PARTIES AND INTEREST GROUPS. (a) A study of the historical development of American political parties. (b) An analysis of contemporary American political parties and interest groups. Prerequisite: 203.

350—8 (4,4) THE POLITICAL SYSTEMS OF MAJOR EUROPEAN STATES. (a) A comparative study of important institutional, behavioral, and policy features of selected Western European political systems. (b) An examination of the organization and operation of the Soviet political system. Prerequisite: 200.

355—8 (4,4) POLITICAL SYSTEMS OF MAJOR NON-EUROPEAN STATES. (a) Latin America. A comparative study of the most important institutional, behavioral, and policy features of selected Latin American political systems. (b) Asia. An analysis of four major political systems: China, Japan, India, and Indonesia. Prerequisite: 200.

370—4 INTRODUCTION TO INTERNATIONAL RELATIONS. The nation-state system, diplomatic practice, problems of national interest, power, ideology, and conflict; strategy and instruments of foreign policy. Prerequisite: 203.

385—4 INTRODUCTION TO POLITICAL THEORY. An introduction to the basic concepts and topics of political theory. Prerequisite: 200.

386—4 AMERICAN POLITICAL IDEAS AND THEIR ORIGINS. Examination of eighteenth and nineteenth century sources of the contemporary American political ideas. The American Revolution, the Constitution, age of Jackson, the Civil War, and the industrial and westward expansion; readings include works by Jefferson, Madison, Calhoun, Lincoln, DeTocqueville, as well as Supreme Court decisions and political speeches.

410—4 INTERMEDIATE SOCIAL STATISTICS. (Same as Sociology 410.) Descriptive and inferential statistical techniques with computer applications. Basic algebra recommended. Proficiency examination available. Prerequisite: 310, its equivalent, or consent of instructor.

411—4 ADVANCED SOCIAL STATISTICS. (Same as Sociology 411.) Intermediate and advanced statistics, focusing on multivariate techniques such as factor analysis, analysis of covariance, multiple regression, path analysis, and models. Prerequisite: 410 or consent of instructor.

421—4 PUBLIC PERSONNEL ADMINISTRATION. An analysis of problems of recruiting, retaining, and developing public service employees and related topics such as political neutrality, motivation, security, and manpower planning. Prerequisite: 320.

422—4 PUBLIC FINANCIAL ADMINISTRATION. A survey of the problems encountered in the administration of public financial resources, including budgeting, accounting, auditing, and fiscal and monetary policy. Prequisite: 320.

424—4 ADMINISTRATIVE LAW. A study of the principles of administrative law in the United States with special emphasis on the law of public officers and on legal procedure for the enforcement of bureaucratic responsibility.

425—4 CONSTITUTIONAL LAW AND THE MASS MEDIA. Meaning of the First Amendment of U.S. Constitution, as interpreted by the U.S. Supreme Court and the Illinois Supreme Court in relation to speech, assembly, and mass media (press). Development and current status of American jurisprudence as to libel, invasion of privacy, regulation of "obscenity," prior restraint, and developing "right of access" to mass media by minority opinion groups. Surveys trends in FCC administration of broadcast standards and contrasts such administration against parallel judicial standards.

426—4 PUBLIC ADMINISTRATION AND PUBLIC POLICY

FORMATION. An analysis of the role of formal organizations in contemporary society with an emphasis on decision-making in government administrative organizations. A treatment of internal and external forces affecting the policies and structure of operations in these organizations. Prerequisite: 320.

429—2 to 4 TOPICS IN PUBLIC ADMINISTRATION. An intensive study of an administrative problem or process. Primarily for government students with advanced standing. May be repeated for total of 8 hours credit when content differs and consent of department chairperson is received. Prerequisite: 320.

442—4 POLITICS IN METROPOLITAN AREAS. An investigation of significant problems that face metropolitan areas. Emphasis on the political implications of these problems and the difficulties involved in attempting to solve them. Prerequisite: 203.

444—4 ETHNIC POLITICS IN THE UNITED STATES. An analysis of the impact of the ethnic factors, race, religion, national origin and ancestry, on the politics in the United States. A discussion of the difficulties in participation and contribution of the various minority groups to the structure and process of American politics. Prerequisite: 203.

445—8 (4,4) AMERICAN POLITICAL BEHAVIOR. (a) American Voting Behavior. Survey of studies of American elections emphasizing the psychology, sociological, and political-legal bases of voting behavior. (c) Public Opinion, Propaganda, and the Mass Media in the United States. A survey of research findings concerning the relationship of communications content and communications media to the political process. Prerequisite: 203.

446—4 PUBLIC POLICY ANALYSIS. An intensive analysis of a selected area of public policy. Content varies from quarter to quarter. Examples of areas are education, science and technology, the environment, or welfare. May be repeated for total of 8 hours credit. Prerequisite: 203.

448—4 INTERGOVERNMENTAL RELATIONS IN THE UNITED STATES. An introduction to the relationships—political, legal, fiscal, administrative, etc.—between and/or among the national, state, and local governments. Prerequisites: 203, 343, and 344 or consent of instructor.

449—2 to 4 TOPICS IN AMERICAN POLITICS. An intensive examination of one significant facet of the American political system. Primarily for government students already having had considerable course work in this area. May be repeated for total of 8 hours credit when content differs and consent of department chairperson is received. Prerequisite: 203.

459—2 to 4 TOPICS IN COMPARATIVE POLITICS. A selective and detailed study of a major question of relevance to students of comparative politics. May be repeated for total of 8 hours credit when content differs and consent of department chairperson is received. Prerequisite: 350 or 355.

472—4 INTERNATIONAL ORGANIZATIONS. (a) Description and analysis of both past and contemporary general international organizations, with special emphasis on the principles, structure, decision-making processes, operations, and problems of the United Nations and its related agencies. Prerequisite: 200.

473—12 (4,4,4) FOREIGN POLITICS OF MAJOR POWERS. (a) American Foreign Policy. Institutional framework and decision-making processes of American foreign policy; idealist and realist schools of thought; the national interest in historic and geographic perspective. (b) Soviet Foreign Policy. Analysis of objective strategy, and tactics of Soviet foreign policy, with emphasis on the combination of conventional and unconventional instruments including role of Communist parties. (c) Foreign Policies of Western European States. Analysis of foreign policies of the major European powers, with emphasis on structural changes incident to the two world wars and the dissolution of colonial empires. Prerequisite: 370.

474—8 (4,4) PUBLIC INTERNATIONAL LAW. (a) Nature, Sources and Development of International Law. (b) Jurisdiction, Boundaries and War in International Law. An introduction to the role of international law in contemporary world affairs. Origins of international law, legal aspects of interstate behavior, settlement of disputes, and use of force. Prerequisite: (b) 474a.

479—2 to 4 TOPICS IN INTERNATIONAL RELATIONS. A detailed study of a selected topic. Primarily for government students with advanced standing. May be repeated for total of 8 hours credit when content differs and consent of department chairperson is received. Prerequisite: 370.

481—8 (4,4) DESCRIPTIVE POLITICAL THEORY. (a) Contemporary Political Theory. Intensive study of important contemporary efforts to produce systematic explanations for political phenomena. (b) Contemporary Political Analysis. The character of scientific inquiry as it relates to the discipline of political science. Prerequisite: 200.

484—12 (4,4,4) HISTORY OF WESTERN POLITICAL THEORY. (Same as Philosophy 484.) (a) Ancient and Medieval. (b) Renaissance and Early Modern. (c) Recent. May be taken separately.

489—4 TOPICS IN POLITICAL THEORY. A comprehensive examination of the works of one major political thinker and the treatment of one major topic or idea by selected political thinkers. Primarily for government students with advanced standing. May be repeated for total of 8 hours credit when content differs and consent of department chairperson is received.

495—12 (4,4,4) CONSTITUTIONAL LAW. (a) A study of the development of American constitutional law chiefly through judicial opinion. Emphasis is placed on the analysis of federalism and the distribution of powers. (b) A study of government power and the rights of property. Special attention is directed to

tension between the public welfare and private rights, the extent of government power to regulate property rights, and state versus federal power over commerce and taxation. (c) A study of the nature and extent of civil rights and liberties in the United States. Special attention to freedom of speech, press, and association, separation of church and state, equal protection of the laws, rights of persons accused of crime. Prerequisite: 203.

495d—4 THE SUPREME COURT AND CRIMINAL PROCEDURE. A study of the Fourth, Fifth, Sixth, and Eighth Amendment protections of criminal defendants. Emphasis is on the nationalization of the Bill of Rights, arrest, search, and seizure, assistance of counsel, due process of law, and the permissible scope of punishment. Prerequisite: 203.

498—2 to 8 LEGAL AID INTERNSHIP. Assisting legal-aid attorneys and public defenders with legal research, preliminary interviews of clients, investigating of complaints, and organizing welfare-rights groups. This course may be taken for one or two quarters but no more than 8 hours credit may be earned. Students work as paraprofessionals ten hours per week for 4 hours credit and twenty hours for 8 hours of credit. NOT FOR GRADUATE CREDIT. Prerequisite: 340c or 495 recommended.

499—4 to 8 INTERNSHIP IN GOVERNMENT. Internships consist of full-time day-to-day assignments in Congressional or administrative offices under the supervision of regular professional employees of that office. Arrangements are made in advance to ensure that the student's internship experience is varied and relevant to his/her professional development, while also making a positive contribution to the office to which he/she is assigned. Internships may be one or two quarters duration, depending on arrangements and student interest. NOT FOR GRADUATE CREDIT. Prerequisite: 16 hours of graduate work or senior standing with a government concentration.

HISTORY

100—4 SURVEY OF ANCIENT CIVILIZATION. Ancient Period to 1000 A.D.

300—2 SPECIAL TOPICS. An intensive examination of a single historical topic from the areas of political, economic, social and cultural history. May be repeated for total of 8 hours.

304—4 GREAT TRIALS, ASSASSINATIONS AND EXECUTIONS. Eight to ten of the most famous trials, executions, and assassinations in European history (e.g., Socrates, Christ, Caesar, Joan of Arc, Charles I, Marie Antoinette, Archduke Francis Ferdinand, Adolf Eichmann, etc.) will be dealt with. Each figure will be treated both as an individual and as a symbol of some important theme in European history. The persons treated will vary from quarter to quarter.

306—12 (4,4,4) HISTORY OF ROME. (a) The Republic. (b) The Western Empire. (c) The Eastern Empire.

308—4 HISTORY OF ILLINOIS. A history of the State of Illinois from French settlement to the present. A survey of the political, social, economic, and cultural history of Illinois.

309—4 TOPICS IN BLACK AMERICAN HISTORY. A study of topics and issues in Black American history from the 17th Century to the present.

313—4 WITCHCRAFT, MAGIC AND THE OCCULT. The general theory of magic and of the history of magic and witchcraft in the western world.

315—4 AMERICAN POLITICAL EXTREMISM. A study of leftwing and rightwing political movements in United States history.

316—12 (4,4,4) HISTORY OF AFRICA. (a) Africa south of the Sahara from prehistoric to colonial times. (b) Africa south of the Sahara from Colonial times to the present. (c) Africa north of the Sahara from Islamic times to the present.

317—8 (4,4) THE WESTWARD MOVEMENT IN AMERICAN HISTORY. (a) To 1845. (b) 1845 to the present. The land policies, immigrations, settlements, and exploitation of the American lands since the first European settlements.

321—4 MUSSOLINI AND EUROPEAN FASCISM. A study of the circumstances, ideas, and anxieties which produced fascism in Italy. A brief survey of the fascist experience in other European states is also given so that the student is able to assess both the universal aspects of totalitarianism as well as the aspects peculiar to each state.

322—12 (4,4,4) HISTORY OF THE ARAB WORLD. (a) The Islamic experience from Muhammad to the decline of the Abbasid Caliphate, 570-945. (b) Islamic civilization in the period of the Crusades and the Ottoman Empire, 945-1789. (c) Nationalism and modernization in the modern Middle East, 1789 to the present.

332—12 (4,4,4) MEDIEVAL HISTORY. (a) Early Middle Ages, 500-1000. (b) High Middle Ages, 1000-1300. (c) Late Middle Ages, 1300-1500.

334—12 (4,4,4) HISTORY OF CHINA. The study of Chinese civilization from prehistoric times to the present with emphasis on institutional development, Chinese society, and the principal intellectual achievements. (a) Ancient period to 1689—Early and Middle Empire. (b) 1689 to 1912—Late Empire. (c) 1912 to present—Revolutionary Era.

335—4 HISTORY OF MODERN JAPAN. A study of Japan in the 19th and 20th centuries with particular reference to its relationships with the Western World. An emphasis on the traditional versus the Western-inspired elements in Japan in modern times.

338—8 (4,4) HISTORY OF GREECE. (a) Hellenic history. (b) 401-133 B.C.

341—8 (4,4) HISTORY OF RELIGION IN WESTERN CIVILIZATION. (a) Religion in European history. (b) Religion in the United States. A study of religious institutions, ideas, and practices in Western civilization and their relationship to society.

342—8 (4,4) HISTORY OF CANADA. A study of the origins, and political, economic, and social development of the modern Canadian state. (a) French period to Dominion status (1867). (b) Modern Canada since 1867.

352—12 (4,4,4) HISTORY OF LATIN AMERICA. (a) Colonial Latin America. (b) Latin America from 1800 to 1914. (c) Latin America from 1914 to the present.

355—4 ITALIAN UNIFICATION AND WORLD WAR I. A study of the men, movements, and ideas which led to the formation of the Italian nation and the events which led Italy into World War I in 1915.

358—8 (4,4) HISTORY OF SCIENTIFIC DISCOVERY. (a) To 1500. (b) 1500 to 1900.

372—12 (4,4,4) HISTORY OF RUSSIA. (a) 900-1801—The Early Empire. (b) 1801-1914—The Late Empire. (c) Since 1914—War, Revolution, and Soviet Russia.

385—4 THE CITY IN UNITED STATES HISTORY. A study of the importance of the city in United States history.

390—4 THE WOMEN'S RIGHTS MOVEMENT IN THE UNITED STATES. A history of the struggle women have had in the United States for legal, political, economic, and social rights. Attention to leaders in the movement as well as the influence of and connection with other reform movements.

401—8 (4,4) HISTORY OF THE SOUTH. (a) The Old South. (b) The New South. An intensive study of the social, economic, political, and cultural developments of the South.

405—4 THE AMERICAN CIVIL WAR. Emphasis upon the clash of national and sectional interests: economic, political, and military aspects of the conflict.

406—4 POST CIVIL WAR AMERICA: 1865-1896.

407—4 THE BLACK URBAN EXPERIENCE, 1820-1965. A history of blacks in American cities, with special emphasis upon the period from 1820 through 1965. The course investigates the internal life of black communities, as well as their relationships to the larger society.

408—8 (4,4) HISTORY OF THE ANCIENT NEAR EAST. (a) Earliest times to 1200 B.C. (b) 1200B.C. to 330 B.C.

410—2 to 5 SPECIAL READINGS IN HISTORY. Supervised reading for students with sufficient background. Registration by special permission only. Offered on demand. Prerequisites: minimum of 4.00 average in history, consent of chairperson.

412—8 (4,4) INTELLECTUAL HISTORY OF THE UNITED STATES. (a) To 1865. (b) Since 1865.

414—8 (4,4) HISTORY OF EASTERN EUROPE. (a) 1815-1918. An analysis of the rise of nationalism with emphasis on the problems of the Austro-Hungarian Monarchy. (b) Since 1918. An analysis of the problems of the Succession States.

415—12 (4,4,4) EARLY MODERN EUROPE. (a) Renaissance. (b) Reformation. (c) Age of Absolution and Enlightenment.

419—12 (4,4,4) HISTORY OF ENGLAND: 1509 TO THE PRESENT. (a) Renaissance and Reformation England—1509-1714. (b) Birth and Growth of Industrial England—1714-1867. (c) England Since 1867.

420—4 THE FRENCH REVOLUTION. A sketch of the passing of feudalism in France, the background and development of the revolutionary movement, and the Napoleonic period.

424—8 (4,4) MODERN EUROPEAN THOUGHT. (a) From Absolutism to Revolution. (c) Totalitarianism and the Ideology of Despair.

425—4 AMERICAN COLONIAL HISTORY. Founding of the American colonies and the development of their institutions to 1763.

426—4 THE REVOLUTION AND THE CONSTITUTION. A study of the conflicting forces which produced the American Revolution, led to the creation of the federal union, and shaped the early republic. Meets Constitution requirement.

427—4 HISTORY OF THE ARAB-ISRAELI CONFLICT. A history of the origins and developments of relations between the Arab world and Israel.

428—4 THE AGE OF JACKSON. Origins, background, and development of that phase of American democracy associated with the Jacksonian era. The political, social, and economic history of the years 1815-1844 in detail.

430—12 (4,4,4) LATE MODERN EUROPE. (a) Age of Revolution, 1815-1880. (b) 1880-1918. (c) Since 1918. Age of Dictatorships.

433—4 WORLD WAR I AND ITS AFTERMATH: 1914-1921. A description and analysis of the origins of war, its course, and its results. Along with the discussion of military action, attention will be given also to the political, social, and economic effect of the war, relating to world-wide revolutions of 1917-1921.

434—4 THE MIDDLE EAST IN WORLD AFFAIRS. A study of select problems relevant to contemporary times, e.g., the Great Powers and the Middle East, Oil and Economics, Islam in the modern world, the Iranian Revolution.

435—8 (4,4) TWENTIETH CENTURY AMERICAN HISTORY. (b) 1921-1945. (c)1945 to present.

436—4 WOMEN IN AMERICAN SOCIAL HISTORY. A study of the socio-economic position of women in American history from colonial times to the present. The life-styles and experiences of women from diverse social classes, ethnic and racial groups, and geographic backgrounds will be investigated. Social institutions such as the family, church, and school and women's roles within them will also be studied.

437—8 (4,4) AMERICAN MILITARY HISTORY. (a) The development of American military institutions and their place in American society to 1914. (b) The increasing power and influence of the military establishment in an era of global conflict.

440—8 (4,4) HISTORY OF AMERICAN DIPLOMACY. (a) To 1919. (b) Since 1919.

445—4 THE RUSSIAN REVOLUTIONS: 1900-1930. A study of the revolutions and civil war of 1917-1921 within the context of the problems which Russia encountered under the Tsarist regime, the Tsarist government's efforts to solve them, and the extent to which the Soviet government continued or changed Tsarist policies. Delineation of the relationship between Russian and Communist elements in shaping Russian Communism.

446—4 THE GRAND DUCHY OF MOSCOW, 1450-1613. Economic, political, and social relations in the emerging Russian state: foreign affairs and Muscovite expansion; Russia, the Renaissance, and the Reformation.

450—4 TOPICS IN HISTORY. Selected topics such as the history of the city, labor history, history of social welfare, etc., will be offered as the need exists and the interests of faculty members permit. May be repeated to a maximum of eight hours so long as no topic is repeated.

451—8 (4,4) SURVEY OF HISTORICAL WRITING. (a) Classical and European Historiography. (b) Great Books in American History. Reading and discussion of the most significant contributions to historical literature. Prerequisite: (b) a course in U.S. History.

452—4 HISTORICAL RESEARCH. The rules of historical research studied and applied to a selected topic. Required of all undergraduate students with a major in history. Prerequisite: junior standing.

453—8 (4,4) HISTORY OF MODERN FRANCE. (a) An in-depth study of the problem of nineteenth century France which led from an empire to a democratic republic. (b) A study of France in the twentieth century.

454—4 BIOGRAPHY IN AMERICAN HISTORY. Outstanding leaders and their contributions to the history of the United States. Attention to historical writers who specialize in biography.

455—4 MEN AND WOMEN OF MODERN EUROPE. A biographical history course. A study of the lives and contributions of leading figures of the eighteenth, nineteenth, and twentieth centuries.

456—8 (4,4) RECENT GERMAN HISTORY. (a) Germany from the close of the Napoleonic Wars through unification. (b) Germany from the Second Empire through World War II.

460—12 (4,4,4) SOCIAL AND INTELLECTUAL HISTORY OF THE MIDDLE AGES. (a) 500-1000. (b) 1000-1250. (c) 1250-1500.

465—4 CHINESE COMMUNIST REVOLUTIONS. Revolutionary changes brought about by the Chinese Communist Party since its creation in 1921. Attention to the role played by such leaders as Mao Tse-tung.

471—8 (4,4) HISTORY OF MEXICO. (a) Spanish conquest to the death of Juarez. (b) Death of Juarez to the present.

473—8 (4,4) THE CARIBBEAN AREA. (a) Island States of the Caribbean. (b) Central American Area.

477—8 (4,4) HISTORY OF AMERICAN BUSINESS. (a) The development of corporations, stock markets, banks and agriculture to the Civil War. (b) American business from 1860 to the present.

485—4 ORIGINS AND HISTORY OF WORLD WAR II. An examination of the causes and development of World War II, with emphasis on military operations and diplomatic aspects. Lectures combined with intensive reading, discussions, and films.

PLANNING

300—4 INTRODUCTION TO CITY AND REGIONAL PLANNING. A survey course introducting the field of city and regional planning, its basic concepts, its justification, and its application to problems of the urban and regional environment.

404a—4 URBAN GEOGRAPHY. (Same as Geography 404a.)

404b—4 COMMERCIAL LOCATION AND DEVELOPMENT. (Same as Geography 404b.)

404c—4 RESOURCE USE AND MANAGEMENT. (Same as Geography 404c.)

405a—4 AREA ECONOMIC DEVELOPMENT. (Same as Geography 405a.)

405b—4 TRANSPORTATION GEOGRAPHY AND DEVELOPMENT. (Same as Geography 405b.)

475—4 FIELD STUDY OF ENVIRONMENTAL PROBLEMS. (Same as Earth Science 475 and Geography 475.) May be repeated for a total of eight hours so long as topic is not repeated.

SOCIAL WORK

200—4 INTRODUCTION TO SOCIAL WORK. A preprofessional introductory course designed to acquaint the student with important aspects of the profession of social work. In addition to classroom work, students will complete 40 clock hours of supervised field lab in selected social service settings. Lab is designed to enhance students' understanding social welfare and to evaluate their interest in the profession.

375—4 SOCIAL WELFARE AS A SOCIAL INSTITUTION. Interdependence of social, cultural, political, and economic factors in the history, theory and practice of social welfare, with special reference to development of the social work profession in response to welfare problems. Prerequisite: consent of instructor.

381—4 THE FIELD OF SOCIAL WORK. A preprofessional course intended to acquaint the student with the philosophy, theoretical base, scope and aims of the helping services and of social work as a helping service profession. Prerequisite: consent of instructor.

383—4 BASIC INTERPERSONAL HELPING PROCESSES. The beginning practice skills course in the social work program. Designed to introduce the student to the knowledge, skills and values required for effective professional social work practice, and to provide structured opportunities for students to begin to experience themselves as helpers. Prerequisite: consent of instructor.

384—4 DEVELOPMENTAL PERSPECTIVES ON HUMAN BEHAVIOR. Socio-biological and psychological theories are integrated in this course on human development from the prenatal stage to the stage of old age. The effects of human diversity are discussed and implications for social work practice are emphasized. Prerequisite: consent of instructor.

385—8 (4,4) HUMAN BEHAVIOR IN THE SOCIAL ENVIRONMENT. Integration of psychological and sociological perspectives on human functioning in a practice format, with application to families, groups and large social systems. Prerequisites: (a,b) consent of instructor.

389—2 to 8 INDEPENDENT STUDY IN SOCIAL WORK.

400—2 to 4 SPECIAL TOPICS. Elective study of a specific field of professional practice, or special topic from a social work perspective, (i.e., medical social work, income maintenance and welfare policy, social work with the handicapped). Consult Schedule of Classes for specific topics offered in a particular quarter. This course may be repeated as often as desired. NOT FOR GRADUATE CREDIT.

475—4 SOCIAL WELFARE POLICY ANALYSIS. Develops and expands critical and analytical understanding of social welfare policy development, implementation and its impact on service delivery. Focus on local communities and agencies with consideration to state and federal influences. Prerequisite: 375 and Government 342 or consent of instructor.

479—4 ADVANCED SKILLS AND PREPARATION FOR PRACTICUM. This course is designed to build on basic practice skills covered in Social Work 383 and to orient and prepare the student for the senior field placement; to develop a learning contract for the senior field placement to be taken in the following quarter; to identify and develop practice skills specific to the field placement setting. NOT FOR GRADUATE CREDIT. Prerequisites: consent of the Social Work Admissions Committee and 383.

480—4 SOCIAL WORK THEORY AND METHODS I. Designed to develop further understanding of basic concepts and principles encompassing the core of values and knowledge generic to social work practice. Emphasis on translation of this core into practice skills. A problem solving framework consisting of problem identification, problem assessment, analysis and planning for intervention, intervention, and evaluation of intervention, provides a model within which specific practice skills are introduced, practiced, and learned. Skills emphasized are interpersonal and planning skills designed to facilitate competence in social work practice. Prerequisites: 375, 381, 383.

481—4 SOCIAL WORK THEORY AND METHOD II. Theory, rationale, and practice of casework, group work, social welfare organization, and the roles of supervision, administration, and research in relation to each. Case material study and discussion with field observation and practice. Prerequisite: 480.

482—16 (8,8) FIELD INSTRUCTION. Educationally directed field instruction with social work supervision in a community setting. 200 clock hours for 8 credit hours: 400 clock hours for 16 credit hours. Weekly discussion meetings are held on campus. Prerequisites: 479 and consent of instructor.

490—4 SENIOR SOCIAL WORK SEMINAR. A summarizing course. Designed to prepare the graduating senior for entry into employment of choice or graduate education. Format to be determined by individual instructor and class body. NOT FOR GRADUATE CREDIT. Prerequisites: 481, consent of instructor.

SOCIOLOGY

Sociology courses are numbered on the basis of their classification into one of the topical categories. This classification is intended to assist students in selecting courses and programs of study. The student should recognize that many courses could be placed into other categories in addition to the one in which it has been placed. In order to determine the category of a particular course found in the catalog, the student should use the last two digits of the course number and the following numbering classification. For example, if the last two digits fall

within the 10-19 range, the course is considered to be a methods or statistics course. The classification scheme is used for 300-, 400-, and 500-level courses in the Sociology Department.

00-09 Social Problems and Intergroup Relations
10-19 Methods and Statistics
20-29 Social Psychology
30-39 Social Organization and Structure
40-49 Social Institutions
50-59 Theory and Knowledge
60-69 Social Change and Collective Behavior
70-79 Crime, Deviance and the Legal Process
80-89 Demography and the Human Ecology
90-99 General and Applied Sociology and Individual Courses

300-4 CONTEMPORARY SOCIAL PROBLEMS. An examination of a number of American social problems, including theoretical analyses of those problems and some attention to methods of researching problems.

304—4 RACE AND ETHNIC RELATIONS. Racial and cultural contracts and conflicts; causes of prejudice; status and participation of minority groups; national and international aspects of racial, ethnic, and minority problems.

308—4 WOMEN AND SOCIETY. An examination of the changing position and experience of women from both a historical and contemporary perspective, with emphasis on American society. Socialization patterns, sex roles, inequality, women in the family and the work place, and the women's movement are among the topics considered in this course.

310—4 INTRODUCTORY SOCIAL STATISTICS. (Same as Government 310.) An introduction to descriptive and inferential statistics. Among topics are: frequency distributions and their graphic representations, the normal curve, measures of central tendency and dispersion, measures of association, the tabular presentation of multivariate data, probability, estimation and hypothesis testing.

312—4 SOCIAL RESEARCH METHODS. An introduction to the fundamentals of measurement, research design, and data analysis. Among topics are: problem formulation, issues in measurement and scale construction, the logic of analysis and the methods for determining causal relations among variables, alternative research designs (such as experimental design, survey research, field research, content analysis, and use of archival data) and methods of data collection and analysis, and the interrelationships of theory and research.

321—4 INDIVIDUAL AND SOCIETY. The process of socialization in infancy, childhood, and adolescence; development of habits; attitudes, sentiments; emergence of the self; integration of the individual and society.

331—4 PROFESSIONS IN MODERN SOCIETY. An analysis of the forces involved in the professionalization of occupations in modern society and the problems accompanying this phenomenon; the structural characteristics of professional occupations; issues involved in the regulation and control of professions; problems confronting professionals working within various work contexts such as bureaucracies; the education and training of professionals; and patterns of conflict within and between professional occupations. Among specific professions examined are: medicine, dentistry and the allied health professions; teaching; law; the military; social work; and others.

335—4 URBAN SOCIOLOGY. This course studies when, where and why cities have developed, and the consequences of urbanization on society generally and city dwellers specifically. It also explores the social structure of the city, the interaction and lifestyles of social groups in the city, and problems associated with contemporary urban life.

338—4 INDUSTRY AND SOCIETY. Examination of the mutual relationships between industrialization and kinds of societies, of organization and processes (both formal and informal) within economic units, and of consequences on workers (morale, status, role, performance).

340—4 THE FAMILY. The family in historic and contemporary society; evolution of the modern family; change in family functions, structures, and roles.

362—4 SOCIAL MOVEMENTS. A sociological study of modern social movements; social and cultural backgrounds; forms of expression and organization; social structure of social movements, their role and function in modern society. Examples of social movements considered are: the civil rights movement, the anti-poverty and welfare rights movements, the labor movement and the feminist movements of the 19th and 20th century, various religious movements such as fundamentalism, the gay rights movement, the anti-abortion movement, the environmental movement, and the peace and anti-nuclear war movements.

372—4 CRIMINOLOGY. An examination of crime in America and of efforts to explain it. Special topics include murder, rape, drug use, burglary, con games, corporate crime, and employee theft.

373—4 INTRODUCTION TO CRIMINAL JUSTICE. An overview of the American criminal justice system, with detailed analysis of police enforcement practices, decisions to prosecute, and sentencing. Major Supreme Court decisions influencing criminal procedure will also be reviewed.

374—4 VICTIMS AND SOCIETY. An introduction to the study of war, crime, inequality, racism, sexism, and other social conditions as victim-generating forces in society. Among questions asked are: Who are the victims? How are they victimized? What processes determine patterns, trends, and reactions to victimization?

381—4 POPULATION AND MIGRATION. Characteristics of

population, problems of growth, composition, distribution, differential fertility and internal migration.

390—2 to 4 (8 total) SOCIOLOGICAL PERSPECTIVES. An investigation, from a sociological perspective, of various topics of contemporary interest to students. Consult Schedule of Classes to see if offered and for specific topics and credit hours.

396—1 to 5 READINGS IN SOCIOLOGY. Supervised reading in selected subjects. Prerequisite: consent of chairperson.

409—4 URBAN SOCIAL PROBLEMS. A focus on some of the major social problems found in contemporary urban life. Of particular concern are the problems of race relations, poverty, ghettoization, urban decay, urban education, and political structures and responses. Includes both micro and macro analyses of the urban situation. An attempt to relate the structural conditions of American urban life to the problems that are conventionally viewed as personal troubles or characteristic of particular groups.

410—4 INTERMEDIATE SOCIAL STATISTICS. (Same as Government 410.) Descriptive and inferential statistical techniques with computer applications. Basic algebra recommended. Prerequisite: 310, its equivalent, or consent of instructor.

411—4 ADVANCED SOCIAL STATISTICS. (Same as Government 411.) Intermediate and advanced statistics focusing on multivariate techniques such as factor analysis, analysis of covariance, multiple regression, path analysis, and models. Prerequisite: 410 or consent of instructor.

430—4 SOCIAL ORGANIZATION. The focus is on the nature and bases of social organization rather than on particular organizations; a review of a range of theoretical perspectives, especially classical theories; analysis of major kinds of organization, system types, and processes (e.g., institutionalization, stratification, bureaucratization, nationalization, communalization).

431—4 COMPLEX ORGANIZATIONS. Analysis of formal and informal organization. Theories of function and structure, with reference to the work of Weber, Barnard, Simon, and others. Comparative analysis of various kinds of organizations: factories, schools, prisons, hospitals, churches, voluntary associations. Pressures toward equilibrium and change.

435—4 SOCIAL INEQUALITY. An examination of structured social inequality with respect to status, income, and power as these vary among societies, factors affecting the degree of inequality in a society, and the consequences of inequality on individuals and societies.

441—4 HEALTH, ILLNESS AND SOCIETY. An examination of the social and social-psychological determinants of morbidity and mortality; cultural and social responses to symptoms and pathology; patient-practitioner relationships; the hospital as a social system; the social organization of health occupations; patterns of use of health services; and issues in the organization and delivery of health care on a societal level.

444—4 SOCIOLOGY OF LAW. Analysis of the formation of law, its implementation, relationship to social change, and the interconnections between the judicial system and the other institutions of society. Comparison of legal systems in primitive, medieval, and industrialized societies.

451—4 CLASSICICAL SOCIAL THEORY. An examination of the theoretical foundations of sociology, with special emphasis on the works of Karl Marx, Max Weber, Emile Durkheim, Thorstein Veblen, and George Simmel.

456—4 CONTEMPORARY SOCIOLOGICAL THEORY. An introduction to the major types of contemporary theory and the dominant paradigms of sociology. The major paradigms covered include the social action, the social facts, and the social behaviorist paradigms. The major types of theory include symbolic interactionism and functional, interaction, exchange, and conflict theory.

461—4 SOCIAL CHANGE. An examination of the processes of social change in the modern world; culture lag and conflict of norms; individual and social problems arising from conflicting systems of social values and cultural norms.

470—4 SOCIOLOGY OF DEVIANCE. Comparative theoretical orientations to the study of deviance; the relationship between deviant and conforming behavior, deviance as a social product; the effect of societal reaction on deviance; the development of deviant subcultures; selected deviances.

494—4 MARRIAGE COUNSELING. Survey and analysis of the field of marriage counseling; assessment of current practices and techniques; case studies and supervision.

UNIVERSITY COLLEGE

060—3 ELEMENTARY MATHEMATICS. Basic arithmetical skills. Operations with whole numbers, fractions, decimals, percent. Five contact hours per week. Credit not to be counted for graduation.

080—4,4 COLLEGE READING SKILLS. Designed to develop effective and efficient college reading skills. Emphasis placed on vocabulary and comprehension skills. Credit not to be counted for graduation.

090—4,4 BASIC WRITING. Designed to develop basic writing skills. Provides content base for developing ideas and cognitive skills. Credit not to be counted for graduation.

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