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SIUE Undergraduate Catalog, 1979

Southern Illinois University Edwardsville

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Undergraduate Edition

Southern Illinois
University
at Edwardsville
Edwardsville, Illinois

July, 1979



Announcements

(USPS 935-420)

Of the Southern Illinois University Announcements covers in detail questions concerning the undergraduate program and applies to Southern Illinois University at Edwardsville. It supersedes Volume 8, Number 5, June 1979.	1
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Announcements



Southern Illinois University at Edwardsville

Southern Illinois University Announcements / Vol. 9, No. 5, July 1979.

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THIS ISSUE

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The following issues of the *Southern Illinois University Announcements* may be obtained free from University Graphics and Publications, Southern Illinois University, Edwardsville, Illinois 62026.

Graduate School Catalog.

Guidelines for Prospective Students.

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

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 students upon matriculation.

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 when circumstances warrant such action.

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Statement of Fair Practice. Southern Illinois University at Edwardsville maintains reasonable and fair practices in all matters affecting students. This includes the delivery of educational programs, provision of adequate 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 Office of the Vice President and Provost, the Vice President for Student Affairs, and the Vice President for Business Affairs.

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UNIVERSITY CALENDAR

FALL 1979

September 24—December 15
Final Examinations—December 10-15

WINTER 1980

January 2—March 15
Final Examinations—March 10-15

SPRING 1980

March 24—June 7
Final Examinations—June 2-7

SUMMER 1980

June 16—August 28
June 16—August 8 (eight-week session)
Final Examinations—August 25-28

THE UNIVERSITY

Southern Illinois University is a multi-purpose and diversified public university that was established in 1869. It has sought to meet contemporary educational needs for those it serves. It is fully accredited by the North Central Association of Colleges and Secondary Schools.

Southern Illinois University at Edwardsville has been involved in educational and service programs for the Metro-East St. Louis Area since 1949, when the Belleville Residence Center was established. In 1957, residence centers were established in Alton at the former Shurtleff College campus and in East St. Louis. Specialized programs continue to function at both locations today, urban-oriented programs in East St. Louis and a dental program in Alton. New resident centers were opened in 1974, at Scott Air Force Base and at Greenville College. A third center was opened in 1975 at Litchfield, Illinois.

Southern Illinois University at Edwardsville offers programs of instruction, research, and public service that are appropriate to the mission of the major educational institution in urban-industrial Metro-East Illinois, the second most populous region in the State. Program development is based on a sensitivity to regional needs and on the prudent use of available resources. The University is committed to an improvement of the quality of life in the Metro-East region through programs directly related to societal needs, such as health care, social services, environmental protection and continuing education.

Educational programs are wide ranging, covering baccalaureate degrees in nearly forty different concentrations, approximately forty different master's degrees and three areas of the specialist's degree. A doctoral degree in the Instructional Process was approved in 1976.

In the fall of 1965, major academic operations of the University were centralized on the new Edwardsville Campus. Eight buildings presently comprise the main academic core. The campus is located on 2600 acres of rolling land and woods dotted with lakes along the bluffs flanking the Mississippi River southwest of Edwardsville.

The Elijah P. Lovejoy Library contains over 650,000 volumes; 300,000 United States, Illinois, and international organization government documents; 100,000 maps; 13,000 phonograph records; and a number of special research collections. About 25,000 volumes are added annually and 4,950 periodicals are subscribed to. The East St. Louis Library contains over

28,000 volumes. In addition, the resources of the Morris Library at Carbondale, over a million and a half volumes, are available to faculty and graduate students. A printed catalog and other aids are available for the identification of materials which may be borrowed.

Current library services are described in the regularly revised Library Handbook, available upon request at the Information/Catalog Assistance Desk on the main floor.

The John Mason Peck Building, along with Buildings II and III, are general classroom buildings which house numerous classrooms in addition to faculty offices. The Science Laboratory Building contains both general classrooms and special laboratories and offices for science faculty. The Communications Building has general classrooms and special purpose rooms for music, fine arts, speech and theater students. Student theatrical productions are presented in the theater. Broadcasting studios and facilities are housed in the Communications Building. Programs for radio station WSIE-FM originate in that building and facilities for a proposed education television station are in the building, also.

The University Center, which has received international awards for its total design, has 220,000 square feet of diversified space. It provides food service for students, faculty, and guests. The Center provides recreational facilities including a sixteen-lane bowling alley, table tennis facilities, billiards room, and a card and game lounge. Other facilities are a bookstore, barber shop, television room, music listening room, conference rooms, and an art gallery. Dances, movies, various entertainment programs, and other functions are held in the grand ballroom.

The John S. Rendleman Building, named for the University's first president, has approximately 60,000 square feet of office space which provides for the various administrative, student service, and academic functions.

Near the academic core is the geodesic dome interdenominational Religious Center which was constructed through private donations.

Additional buildings such as the Supporting Services Building, Heating and Refrigeration Plant, and the Wagner Complex of fine art studios are located at various points away from the center of the campus area.

There are approximately 560 full-time Edwardsville faculty members, seventy-five percent of whom possess the doctoral degree. Although many faculty are distinguished nationally and internationally through special talents, publications, and research, teaching is of primary concern. Awards are made annually for outstanding teaching. Faculty are committed to quality instruction, maximum communication and involvement with students. Student representation on major policy-making bodies such as the University Senate is considered to be an advantage to the University and to facilitate students' learning and understanding.

Enrollment at Edwardsville the past six years has been approximately 10,000 students, with eighty-four Illinois counties, thirty states and twenty-eight foreign nations represented. Madison and St. Clair Counties provide eighty percent of the total enrollment. Missouri residents account for seven percent of the total student population. Southern Illinois University at Edwardsville is primarily a commuter campus with students living in the many

communities within a sixty-mile radius of the campus. Approximately 1,250 people live in the 496 student apartments at the Tower Lake complex on campus, within walking distance of the central academic core.

Numerous cultural, entertainment, education and athletic activities abound in this metropolitan area. The campus is approximately thirty minutes driving time from downtown St. Louis. Interstate Highways 70 and 270 facilitate access to the campus from all parts of the southwestern Illinois region.

The University has received national recognition for its Mississippi River Music Festival which has completed its tenth season. Many popular musical groups are featured during the summer season.

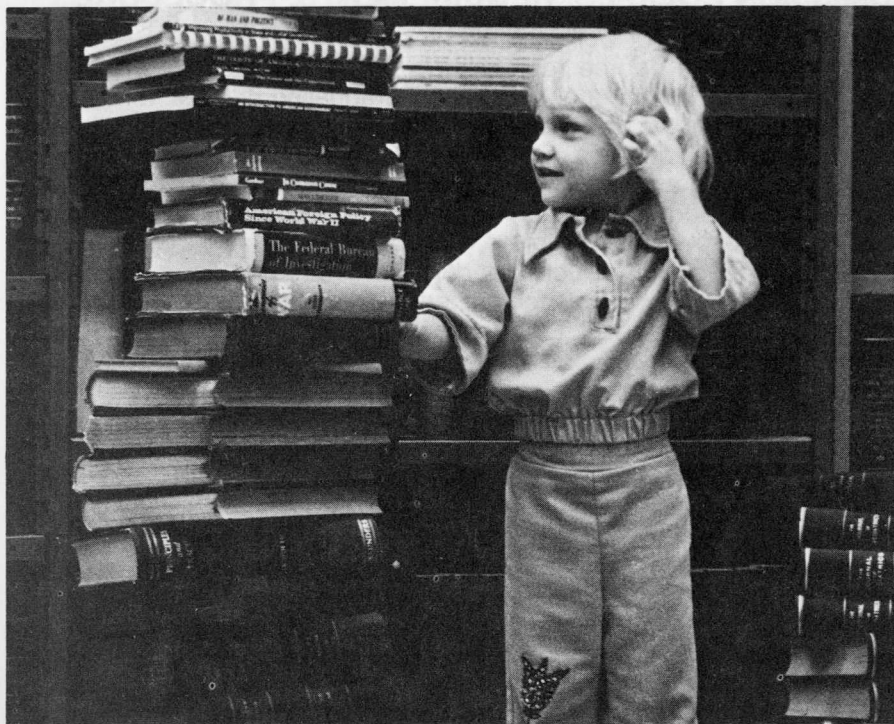
The University sponsors an extensive intramural program and a varsity athletic program including soccer, basketball, baseball, track, cross country, wrestling, tennis, and golf. The Cougars, as the athletic teams are called, have received national and international recognition in several sports.

Admission Policy and Procedures
Determination of Residency
Advisement and Registration
Tuition and Fees
Housing
The University Center
Financial Assistance
Veterans' Information

CHAPTER

1

GENERAL INFORMATION



Admission Policy and Procedures

Determination of Residency

Advisement and Registration

Tuition and Fees

Housing

The University Center

Financial Assistance

Veterans' Information

CHAPTER 1

ADMISSION

ADMISSION POLICIES, REQUIREMENTS, PROCEDURES

Our policy is to accept well-qualified students whom we can reasonably expect to complete degree requirements. In general we select students from the upper fifty percent of high school graduating classes. It has been our experience that the best measures of success in college are motivation and ability. Those qualities are judged by evaluating a student's past educational record and test scores. We feel our admission criteria help to select a student body capable of maintaining acceptable academic standards.

High school graduation or the equivalent is required for admission to the University. Advanced placement and college credit can be earned through the College Level Examination Program (CLEP) or Advanced Placement Program.

NEW STUDENT LIFE

New Student Life is a unique approach to orientation. The 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 all required procedures new students must complete before they are permitted to attend classes. This includes academic advisement for both general studies and departmental requirements, class scheduling, registration information, vehicle registration, I.D.'s, and information about special services provided for all students by the University (i.e., tutoring, health service, student work and financial assistance, etc.).

In order to assure all new students the opportunity of attending New Student Life Orientation, regularly scheduled orientation workshops are offered every quarter. Students planning to enter for winter, spring, or summer quarters are invited to attend a one-day workshop. Students planning to enter in the fall can participate in a two-day, on-campus workshop. All workshops are conducted prior to the quarter of matriculation. Every undergraduate student admitted to the University is automatically invited and strongly encouraged to participate in an orientation workshop.

The New Student Life Office is located on the first floor of the University Center in the Student Activities Area. Students are encouraged to contact the New Student Life Office if they seek additional information about the University or campus life.

REQUIREMENTS FOR ADMISSION OF FRESHMAN STUDENTS

High school students who rank in the upper half of their graduating class or who achieve a composite score of 18 or higher on the American College Test (ACT) may be admitted 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 have an ACT composite score less than 18, will be permitted to enter on a conditional basis for the summer, winter, or spring terms.

Students may be considered for admission after completing the sixth semester of high school. A prospective student must submit high school records and furnish ACT scores prior to enrolling in the University. Admission granted to students who are still in high school is subject to the completion of high school and maintenance of the rank in class upon which they were admitted.

ADMISSION PROCEDURES FOR FRESHMAN STUDENTS

There are two procedures, which may be followed by prospective students applying as first time freshmen. Both procedures, ACT/APP and the traditional method, are explained below.

ACT/APP PROGRAM

High school students in the final semester of their junior year or first semester of their senior year may take advantage of the ACT/APP Program. The University no longer requires an admission application from high school students who take the American College Test and select us to receive a copy of their scores. The ACT data accompanying the results are sufficient for us to create an admission file. However, before final processing of a file can be completed, we must have an authorization to obtain high school information necessary to determine admission status. Therefore, each person who provides test scores will be sent an ACT/APP form which is an application for admission and allows the individual to accept the offer of admission and sign the authorization of information release for high school records. It is essential that we have this signed form before we can admit the student to the University. Receipt of the form will automatically ensure the applicant of consideration for admission and regular mailings concerning the University and its programs and services.

TRADITIONAL ADMISSION PROGRAM

The second procedure which is recommended for those individuals who have already completed high school or did not send their ACT results to us is as follows:

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 either the Office of Admissions and Records or the high school counselor's office.
2. Request that one copy of your 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 the American College Test (ACT) and have official scores sent directly to the Office of Admissions and Records from the American College Testing Program.

REQUIREMENTS FOR ADMISSION OF TRANSFER STUDENTS

For academic purposes an undergraduate applicant for admission to the University is considered to be a transfer student when 12 quarter hours or more of work is presented for consideration; otherwise the student will be considered for admission on the same basis as a new freshman.

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 the applicant's eligibility for admission.

All transfer work, including credit hours and grades earned, will continue to be reflected on the SIUE record, but the only grade average which will be calculated in determining awards will be for work at SIUE.

Students applying for admission from two-year and four-year institutions are admissible to any quarter of the school year, provided they 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 school, may be considered for admission on scholastic probation for the summer, winter, or spring quarters. Students on academic dismissal from the last school attended on a full-time basis may be considered for admission on academic probation for the summer, winter or spring quarters, provided there has been an interruption in schooling of at least two quarters, and there is tangible evidence that additional education can be successfully completed.

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 will enter the University with junior standing and completion of the General Studies requirements. Graduates of other accredited two-year institutions may be granted similar consideration. These students may enter any quarter provided they have not taken additional work at another institution since completion of the associate degree. Students who have taken additional work will be considered from the same standpoint as that of students transferring from four-year institutions.

Other students who transfer from an accredited university, college, or junior college have their work evaluated for purposes of meeting the general degree requirements, including General Studies. The number of D hours accepted from each institution is equal to one-third the A, B, and C hours. In general, equivalent work in appropriate areas is applied to meet the requirements. Other courses may be accepted for general credit and may apply toward concentration or other requirements.

All applicants including A.A. and A.S. degree recipients, who present credit by examination (CLEP or AP) on a college transcript, and wish to have that credit accepted by the University, must have the results of such tests sent directly to the Office of Admissions and Records. Granting of credit for such is governed by current University policy. (See sections on Advanced Placement Program and College Level Examination Program.)

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

ADMISSION PROCEDURES FOR TRANSFER STUDENTS

The admission process is initiated by calling or writing the Office of Admissions and Records and requesting admission materials. A student applying for admission as a transfer student must submit the following items before admission will be granted:

1. The application for undergraduate admission submitted at least 30 days prior to the quarter for which applying.
2. An official transcript sent directly 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. In addition, transfer students presenting fewer than 36 quarter hours (24 semester hours) of completed work must provide a copy of their high school transcript and entrance examination scores (ACT).

ADMISSION OF INTERNATIONAL STUDENTS

Southern Illinois University at Edwardsville is authorized under federal law to enroll nonimmigrant alien students. International students applying for admission to the Undergraduate School must satisfy established minimum requirements in the areas of academic background, English language proficiency, and financial stability.

Applicants are required to have successfully completed no less than twelve years of primary and secondary school study in an academic or pre-university program, and to have completed all post-secondary study in good academic standing.

All applicants whose recognized language of instruction and commerce is not English are required to demonstrate proficiency in the English language by submitting an official Test of English as a Foreign Language (TOEFL) test score. The TOEFL is required of transfer applicants as well as new freshmen. A student enrolled in an English-as-a-second-language program is required to submit an official TOEFL score in addition to a recommendation from the director of his/her language program. The minimum acceptable score is 500.

Applicants are also required to demonstrate their financial stability to the satisfaction of the Foreign Student Advisor. A financial certificate and instructions for its completion are included in the application package.

ADMISSION PROCEDURES FOR INTERNATIONAL STUDENTS

The undergraduate application package for international students is available in the Undergraduate Admissions Office and will be mailed upon request. Students are required to honor the following deadlines for submitting applications and supporting documents:

A Fall Quarter applicant must provide all credentials by July 1.

A Winter Quarter applicant must provide all credentials by October 1.

A Spring Quarter applicant must provide all credentials by January 1.

A Summer Quarter applicant must provide all credentials by April 1.

In addition to the application and questionnaire, students are required to submit the following credentials:

1. Officially certified mark sheets, transcripts, or certificates from at

least the last four years of secondary school study, including certification of graduation.

2. Officially certified mark sheets, transcripts, or certificates from all post-secondary study done outside the United States, including certification of any degrees earned.
3. Official transcripts of all study done in the United States, which must be sent directly to this office by the registrar of each institution attended. The mailing address is: Office of Admissions and Records; Campus Box 47; Southern Illinois University at Edwardsville; Edwardsville, IL 62026.
4. A student whose recognized language of instruction and commerce is not English must provide an official score report from an administration of the Test of English as a Foreign Language (TOEFL) taken no more than one year ago. The minimum acceptable score is 500.
5. The Financial Certificate must be completed according to the instructions on the form and returned, along with supporting documents, to the Foreign Student Advisor. The University assumes no financial obligation as a consequence of admission.

All credentials must be submitted in English. Translations accompanying credentials not available in English must bear the original signature and attestation of the translator certifying the accuracy of the translation.

All credentials submitted become the property of the University and are not returnable.

ADMISSION OF FORMER STUDENTS

A student who has registered and paid fees for any of the four quarters immediately prior to the one he/she wishes to attend is considered a continuing student and need not re-apply for admission.

Continuing students who have declared a major may obtain registration appointments by contacting the Enrollment Center, John S. Rendleman Building, Room 1308. Those who have not declared a concentration should contact the Office of Academic Advisement, John S. Rendleman Building, Room 1310, for advisement and registration appointments.

Former students who have been out of school more than four quarters must complete a re-entry application before advisement or registration. Students who have been academically suspended must follow the listed procedures for reinstatement before applying for re-admission. (See Academic Regulations in Chapter 3.)

ADMISSION OF SPECIAL CATEGORIES OF STUDENTS

Several types of students are given special consideration when seeking admission to the University. These are described below:

ADMISSION OF VETERANS

Veterans seeking admission or re-admission to the University are admitted in good standing regardless of their previous academic record provided that either (a) no additional education has been attempted or (b) such additional education has been of C quality or better. Prior academic work of an admitted reentering veteran 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 includes high school transcripts or GED scores and official transcripts from each college or university previously attended.

EARLY ADMISSION POLICY FOR FRESHMEN

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 the secondary school. Enrollment for students participating in this early admission program is limited to 8 quarter hours.

It is expected that high school principals will judge each case on its individual merits, and that in making their selections and recommendations they will consider such things as:

- (a) the rank held by the students in their high school classes;
- (b) the results of any standardized test which the students may have taken;
- (c) the opinion of the students' teachers regarding their aptitude for college level work; and
- (d) the opinion of the students' teachers regarding the students' having attained sufficient maturity to adjust to the social and emotional interactions involved.

ADMISSION OF NON-DEGREE STUDENTS

Adults who desire to take 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 prerequisite. However, they are not permitted to enroll in 500-level courses. Such applicants 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. Should students admitted into this category desire to enter a degree program at a later date, it will be necessary for them to go through the prescribed admission procedure. In the case of students interested in graduate degrees it should be clearly understood that no credit earned as a non-degree student will be applicable toward such a degree. The decision regarding acceptance of credit earned as a non-degree student toward a baccalaureate degree is at the discretion of the major department. All non-degree student applications for admission are processed in the Office of Admissions and Records.

DETERMINATION OF LEGAL RESIDENCY

Regulations governing the determination of residency for admission to the

University and for assessment of tuition and fees are contained in this section.

Ordinarily, determination of residence status for purposes of tuition and fee assessment is made by the Office of Admissions and Records from evidence furnished on a student's application to the University. When such evidence is not sufficient or where records establish that the person does not meet the requirements for resident status as defined in the following regulations, the non-resident status shall be assigned.

CONDITIONS OF LEGAL RESIDENCY

An *adult*, to be considered a resident, must have been a bona fide resident of the State of Illinois for a period of at least three consecutive months immediately preceding the beginning of any term registered for at the University and must continue to maintain a bona fide residence in the State. Also, an adult student who has a parent or both parents maintaining a bona fide residence in the State and who resides in the parental home or elsewhere in the State is regarded as a resident student.

A *minor* is considered to be a person under eighteen years of age. The residence of a minor shall be considered to be, and to change with that of the parent(s) or legal or natural guardian. No parent or legal or natural guardian will be considered a resident of the State unless that person maintains a bona fide and permanent place of abode within the State.

If a minor has been emancipated, is completely self-supporting, and actually resides in the State, that individual shall be considered a resident even though the parents or guardian 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 an individual intends 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, place of employment.

A *nonresident student married to a resident of the State* may be classified as a resident while residing in the State. The spouse through whom a student claims residence must demonstrate residence status in compliance with the requirements applicable to all students seeking residence status.

A *student who is not a citizen of the United States of America*, to be considered a resident, must either be married to a resident or must have permanent resident status with the United States Immigration and Naturalization Service and must also meet and comply with all of the other applicable requirements of these regulations to establish resident status.

A *person who is actively serving in one of the Armed Forces of the United States, who is stationed and present in the State in connection with that service*, and who submits evidence of such service and station shall be treated as a resident while stationed and present in Illinois. If the spouse or dependent children of such member of the Armed Forces also live in the State, similar treatment shall be granted to them.

A person who is actively serving outside the State in one of the Armed Forces of the United States is considered a resident only on the basis of having been a resident of the State at the time of entry on military service. One separated from active military service is considered a resident of Illinois immediately upon separation on the basis of (1) having been a resident of the State at the time of entry on military service, or (2) having been treated as a resident 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.

A person who is incarcerated in a state or federal place of detention within the State of Illinois will be treated as a resident 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 staff members (academic, administrative, nonacademic) on appointment with the University are considered resident students for purposes of tuition assessment.

PROCEDURE FOR REVIEW OF RESIDENCE STATUS

A student who takes exception to the residence status assigned or tuition assessed shall 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 the tuition assessed. 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 as that upon which instruction begins for the academic period for which the tuition is payable, whichever is later, or the student loses all rights to a change of status and adjustment of the tuition assessed for the quarter in question. If the student is dissatisfied with the ruling in response to the written claim, the ruling may be appealed to the Legal Counsel by filing a written request within twenty days of the notice of the first ruling.

A student may be reclassified at any time by the University on the basis of additional or changed information. However, if the University has erroneously classified a student as a resident, the change in tuition shall be applicable beginning with the quarter following the reclassification. If the University has erroneously classified a student as a nonresident, the change in tuition shall be applicable to the quarter in which the reclassification occurs, provided the student has filed a written request for review in accordance with procedures. If the University has classified a student as a resident on the basis of false or falsified documents furnished by the student, the reclassification to nonresident status shall be retroactive to the first quarter during which residence status was based on the false or falsified documents.

ACADEMIC ADVISEMENT AND REGISTRATION PROCEDURES

ADVISEMENT

The University maintains an advisement system which is available to all students. Advisement is required for all new undergraduate students through the Office of Academic Advisement. After declaring a major concentration, the student is assigned to an adviser in the major area. Students are required to declare a major prior to their senior year. Probationary students are also required to receive advisement prior to registration. Upperclass students with a declared major, except those in Education, may be self-advised for registration purposes.

REGISTRATION

An early registration is conducted prior to the beginning of each quarter in the Meridian Ballroom of the University Center.

The first two days of early registration are conducted on an appointment basis, and appointments are issued at announced times by the Enrollment Center. No appointment is necessary to register on the third day of early registration. To obtain specific information regarding appointment registration, contact the Enrollment Center.

A final day of registration is held immediately prior to the beginning of each quarter. At this time, appointments are not necessary; registration is conducted on a first-come, first-served basis. Since students will find a broader selection of courses available during the earlier registration times, they are encouraged to register during the appointment period.

Only those students who have completed the admissions process are allowed to register. To determine your eligibility, please refer to admissions procedures printed elsewhere in this catalog. Any registration may be declared invalid for scholastic, disciplinary, or financial reasons attested to by the Director of Admissions and Records, Dean of Students, or Bursar.

Detailed information about the dates and procedures for advisement and registration appears in the quarterly class schedule, available from University Graphics and Publications.

ADDING AND DROPPING COURSES

Any change in a student's schedule must be made in the Enrollment Center, Room 1308, John S. Rendleman Building. Further information concerning the proper procedure will be found in the class schedule for the current quarter.

TUITION AND FEES

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.

CERTAIN FEES SHOWN BELOW ARE CURRENTLY UNDER REVISION

AND WILL BE ASSESSED AT DIFFERENT AMOUNTS BY THE EFFECTIVE DATE OF THIS PUBLICATION.

Graduate students must purchase their textbooks, and therefore, are not assessed the textbook rental fee.

	Not more than 5 hrs.	More than 5, fewer than 12	12 or more
Tuition — Illinois Resident	\$ 63.00	\$ 126.00	\$ 189.00
Tuition — Out-of-State Resident	(189.00)	(378.00)	(567.00)
Book Rental Fee	4.00	7.00	10.00
Student Welfare and Activity Fee	10.55	19.30	19.30
University Center Fee	18.50	22.00	25.50
Athletic Fund Fee	6.00	12.00	18.00
Student-to-Student Grant*	1.50	1.50	1.50
Total — Illinois Resident	\$103.55	\$ 187.80	\$ 263.30
Total — Out-of-State Resident	(229.55)	(439.80)	(641.30)

*Each student paying fees for on-campus courses, whether a scholarship holder or not, is assessed \$1.50 toward the establishment of a Student-to-Student Grant Fund. Those wishing a refund of this fee may receive it during the first ten days of the quarter. The refund station is located outside the Bursar's Office, in the John S. Rendleman Building.

Students enrolled in the Open University Project pay the following tuition and fees:

	Fewer than 12 hours	12 or more
Tuition — Illinois Resident	\$ 126.00	\$ 189.00
Tuition — Out-of-State Resident	(378.00)	(567.00)
University Center Fee	22.00	25.50
Textbook Rental Fee	7.00	10.00
Program Fee	19.50	28.00
Total — Illinois Resident	\$ 174.50	\$ 252.50
Total — Out-of-State Resident	(426.50)	(630.50)

Resident Center students are required to pay tuition and fees according to the following schedule. Textbooks must be purchased and are available at the Resident Centers.

	Not more than 5 hrs.	More than 5, fewer than 12	12 or more
Tuition — Illinois Undergraduate	\$ 63.00	\$ 126.00	\$ 189.00
Tuition — Illinois Graduate	68.00	136.00	204.00
Tuition — Out-of-State Undergraduate	(189.00)	(378.00)	(567.00)
Tuition — Out-of-State Graduate	(204.00)	(408.00)	(612.00)
University Center Fee	18.50	22.00	25.50
Resident Center Fee	14.00	25.50	36.00
Total — Illinois Undergraduate	\$ 95.50	\$ 173.50	\$ 250.50
Total — Illinois Graduate	100.50	183.50	265.50
Total — Out-of-State Undergraduate	(221.50)	(425.50)	(628.50)
Total — Out-of-State Graduate	(236.50)	(455.50)	(673.50)

Student fees and charges are payable by the Friday of the first week of classes of each quarter without penalty. Payment of student fees and charges is permitted through Friday of the second week of classes of each quarter with the additional payment of a \$10.00 late fee. Payment is not permitted after Friday of the second week of classes.

Students holding valid scholarships are exempt from tuition and fees to the extent provided by the terms of the scholarship.

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

Other charges which a student may incur are those for departmental field trips, library fines, and excess breakage. Also, students taking courses which involve the use of materials, as distinct from equipment, will ordinarily pay for such materials.

TEXTBOOK SERVICE

One of the truly unique services offered by the University is the system of supplying textbooks to students in the most economical manner. The service supplies the basic instructional texts which have been designated by the departmental faculty through their respective department heads.

The textbook system provides for the sale of textbooks to graduate, unclassified, and off-campus students for their courses. It also provides for the quarterly rental of textbooks to on-campus undergraduate students. Textbooks are sold at discount prices. The income from the sale of texts and rental system fees support the system.

Information concerning issue dates, return schedules, deadlines for return, etc., are posted and published for each quarter.

WITHDRAWAL FROM SCHOOL AND REFUNDS

A student who finds it necessary to withdraw from school during any quarter must report to the Counseling and Testing Center, Rendleman Building, Room 2228, to initiate official withdrawal action. The Center is open Monday through Friday from 8 a.m. to 5 p.m. (Evening students may contact the Adult Student Service Office, Rendleman Building, Room 1208.) No withdrawal will be permitted during the last two weeks of a quarter except under extraordinary circumstances. *A refund of fees is permitted only if the withdrawal and refund requests are officially completed within the first two weeks of the quarter.*

Refund of the Student-to-Student Grant Fund is a process entirely separate from the withdrawal procedure and late registration fees are not refundable.

Consult the Registration Calendar in the quarterly class schedule for the specific dates concerning withdrawal and refunding of fees. Any textbooks or library materials on loan must be returned before a withdrawal is effective.

A student who receives notification of academic suspension after he/she has completed registration for the next quarter will automatically be withdrawn from school. If suspended students have already registered and paid fees for the next quarter, they may obtain a refund by contacting the Enrollment Center, Room 1308, John S. Rendleman Building.

Guaranteed Loan Recipients only, please note the following:

In compliance with 45C.F.R. 177.63 a prorated refund policy is in effect for Guaranteed Loan Recipients if withdrawal and refund requests are completed by the end of the sixth week of the quarter. This prorated schedule based upon fees paid at the time of withdrawal is permitted.

1st 2 weeks of the quarter	100%—no service charge
3rd-4th weeks of the quarter	60%—service charge in amount no greater than \$100.00
5th-6th weeks of the quarter	40%—service charge in amount no greater than \$100.00
After the 6th week	No refund

HOUSING

The Student Housing Office seeks to provide and continually improve a living environment which assists each student in making the most effective use of the opportunity for higher education. The Housing Office has established a range of services, available to students on a voluntary basis, to include both on-campus housing and off-campus housing.

ON-CAMPUS HOUSING

There is a shortage of available on-campus housing facilities. Normally, single students must wait at least three (3) months and family students must wait at least eight (8) months before being assigned to Tower Lake Apartments. Students should apply at the earliest possible date.

Students living outside a radius of campus will be given priority for on-campus facilities. However, this does not guarantee on-campus housing.

The University's housing facilities, Tower Lake Apartments, provide housing for approximately 1200 single students and 200 families. Single students live in a coop arrangement (furnished two- or three-bedroom apartments) which emphasizes 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, with easy accessibility to playground areas and laundry facilities. Resident housing staff members are available to handle those problems residents encounter in their living situation. The Commons Building provides meeting rooms, lounge areas, social and recreational facilities, dining facilities, arts and crafts, programs for children and adults, and maintenance and administrative offices. Further information concerning application procedures can be obtained from the Housing Office.

RENTAL RATES*

<i>Rates for Married Students</i>	<i>Per Month</i>		
Two-Bedroom Unfurnished	\$152.00	Three-Bedroom Unfurnished	162.00
Two-Bedroom Furnished	165.00	Three-Bedroom Furnished	175.00

*Rental rates listed are subject to change whenever conditions make changes necessary.

<i>Rates for Single Students</i>	<i>Per Month</i>		
Two-Bedroom		Three-Bedroom	
4 single students per unit	\$ 60.00	6 single students per unit	60.00
Two-Bedroom		Three-Bedroom	
2 single students per unit	120.00	3 single students per unit	98.00

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 an integral part of the educational and community service mission of Southern Illinois University at Edwardsville. As a center of the campus community, the building serves many needs outside the classroom through the programs it sponsors and facilities it provides.

The University Store, Food Service facilities, Recreation Center, Program Department, Ticket Office, lounges and meeting rooms fulfill many daily needs on campus for students, faculty, staff, alumni, and guests from surrounding communities. The Scheduling Center, Office of Conferences and Institutes, Information Center, Office of Cultural Arts Services, and Student Activities Center are also located within the building to facilitate those needs.

The University Center also serves as an important educational tool, recognizing study and leisure as cooperative factors to individual growth. It serves as a training center for the realization among University students. The building also serves as a focus for the cultural, social, recreational, and educational life of the University.

The University Center Board is an important aspect of this educational philosophy, formally involving students in the operation and program of the Center. As the major student programming organization, the UCB Program Council is charged with the development of activities in the areas of visual arts, films, performing arts, leisure activities, and issues and ideas. The UCB Governing Council is responsible for advising the University Center Director on matters of policies, procedures, and services.

The combination of these facilities, services, programs, and people results in a University Center that represents a well-considered plan for meeting needs of the University community constituencies.

HISTORY OF BUILDING MANAGEMENT

In January 1961 a committee of students, faculty, and staff was initiated to develop the University Center for the Edwardsville campus of Southern Illinois University. Each member of the University was encouraged to complete a facilities and services questionnaire while the planning committee visited eight commuter campuses to gain further knowledge of University Centers. The initial work of the committee led to the construction of a facility costing approximately \$8,000,000 with an estimated 220,000 square feet of space.

The Center is currently finalizing plans for its first major renovation of 5400 square feet on the second floor. Plans include a multi-purpose meeting room with a seating capacity of 450 persons. This larger space may also be divided into six private rooms with seating capacities of 75 persons each.

HIGHLIGHTS OF FACILITIES AND SERVICES

FOOD SERVICES

Taste buds receive top priority at the University Center. The quality and efficiency of the Food Service operation have earned national recognition in the institutional food service industry.

University Club Restaurant. Located on the second floor, the University Club Restaurant offers table service in a pleasant atmosphere and a variety of menus at modest prices. This is a place designed for the dining pleasure of students, staff, faculty, and community guests.

Cafeteria. Hot breakfasts, luncheon specials, large salad and dessert selections, beef carved to order, and selections for the diet conscious are featured in the cafeteria, located on the lower level. Extras such as silverware and china service help to create a "home away from home" atmosphere.

Deli Bar. The Deli Bar is located within the Cafeteria area. You can create a sandwich from cheese, pastrami, corned beef, or turkey with garnishes — to eat here or for carry outs. Parfaits and shakes will complement your choice.

SubMeridian Dock. The SubMeridian Dock is a fast food service area created to provide the University community with a place to obtain hamburgers, french fries, shakes and other snack items when you're in a rush.

Catering Services. Our catering service can provide coffees, brunches, buffets, and complete banquet menus. The catering menu is made up of an unlimited number of food items.

All University Center Food Services are open to students, faculty, staff, and their guests.

UNIVERSITY STORE

Located on the first floor, the University Store offers 11,000 square feet of retail space including books, school supplies, clothing, gifts, and sundry items. These services are provided to meet the campus needs of students, faculty, staff, alumni, and community guests.

Approximately 10,000 book titles are available, including required and recommended texts as well as titles covering a wide range of disciplines, current best sellers and SIU faculty publications. Special order books are available at no extra charge.

Study aids such as proportion scales, dissecting equipment, templates and computer programming forms, are also available. School supplies are featured in a large and diversified variety, including art and office supplies, calendars, briefcases and teaching aids.

A popular section of the Bookstore is the "shirt corner" which includes imprinted T-shirts, sweatshirts, and the equipment to imprint your own message on shirts, hats or pants. A unique selection of greeting cards, stationery supplies, posters, and colorful tote bags are offered at the Gift Department. Also available are Art Carved and Josten's college rings, and a large selection of SIU imprinted glassware, mugs, and jewelry. For convenience shopping, we offer cigars, tobaccos, pipes, smoking accessories, candies, and photographic services. Also available are cosmetics, drug, and grooming aids. A current selection of 190 magazine titles cover a vast array of subjects.

RECREATION CENTER

Bowling, billiards, table tennis and a host of other activities, including air hockey, foosball and pinball await you in the modern facilities of the University Center Recreation Area. This is the place to relax and enjoy yourself in individual or group activities. You might want to participate in our regular leagues and tournaments or organize your own. Facilities are available at attractive rates to all members of the University as well as to individuals or groups from our surrounding communities. Bowling specials include: red headpin (free game at all times); family nites (2 for 1); three games for \$1.00 (at specified times). Students, faculty, staff and alumni with current identification have priority. For information regarding reservations, leagues or rental of the facilities, contact the University Center Recreation Area.

The Recreation Center also hosts many organized activities including physical education classes, leagues, intramural activities, and tournaments.

CRAFT SHOP

This area of the University Center serves as a duplicating center, sign shop, and informal educational class area. Craft workshops are offered each quarter in pottery, photography, jewelry, macrame, and other popular media.

UNIVERSITY HAIR CARE

The latest in hair styles and hair care products for men and women are available through the Hair Care Center located on the lower level.

TICKET OFFICE/INFORMATION DESK

The Ticket Office is responsible for the sale and accounting of 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.

The Information Desk serves as a focal point of the building for the University community and guests. A wide variety of customer services including check cashing for SIUE students, staff and faculty, campus and U.S. Mail pick-up, maps, brochures, bus schedules, athletic game schedules and calendars of campus events are available. Ye Olde Sweet Shoppe, located at the Information Desk, offers various sundry items, candies, cigarettes, and area newspapers.

LOUNGES AND MEETING SPACE

Several lounge spaces enable students to study, converse with friends, view contemporary art works or rest between classes. The Goshen Lounge is the skylit campus living room at the heart of the University Center. It is surrounded with exhibit space and informal furniture arrangements on both the first and second floors. The Opapi Gallery features changing art exhibits of students, faculty, and the work of visiting artists. It also serves as a comfortable lounge which provides local newspapers and current national weekly magazines.

SCHEDULING CENTER

The Scheduling Center staff assures that the University Center's facilities and services are available for University activities as they are needed. Coordinated scheduling of facilities and arrangements for event set-ups of seating and audio-visual equipment are functions of this office.

INFORMATION CENTER

A weekly calendar of events and general campus information are available in this office. Special information displays, ad boards, and University Ambassador tours are services provided to individuals and groups.

STUDENT ACTIVITIES CENTER

The SAC area includes the offices of major student organizations — Student Government, University Center Board, Fraternity/Sorority Conference, Black Students Association, and Major Events Council. Staff members of the Program Department and the Student Activities Office provide assistance to organizations and individuals interested in contributing through involvement to University activities.

PROGRAMS AND ACTIVITIES

The University Center Board is the formal student component of the University Center. Working in conjunction with the building's Program Department, the UCB is the major programming body on campus. The UCB offers a continuing schedule of diverse activities including guest speakers, current feature films, art exhibits, and popular entertainment.

These programs are produced by the UCB Program Council Committees of Film, Issues and Ideas, Leisure Activities, Performing Arts, Public Relations and Visual Arts. There are no limitations to the programming possibilities.

The UCB Governing Council also serves as the advisory board to University Center management on matters of policies and services which affect the University community. Working in these areas are the Food Service and Bookstore Advisory Committees.

Over the years, the UCB has become the "spirit" of the building, both in thought and in process, always keeping its philosophy that: "It's more than a building." Membership is open to all students, staff, and faculty of the University.

For a schedule of upcoming programs or information on how easy it is to be actively involved with the University Center Board, contact the Program Department.

STUDENT WORK AND 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 each student's particular needs.

A student's financial need is determined by subtracting from the standard budget any resources available to the student. Such resources include expected parental contributions, student assets and summer earnings, or other student benefits such as Social Security or G.I. Bill. The analysis of need may vary slightly between federal, state, and institutional programs, but generally it is based on the assumption that the primary responsibility for the cost of a student's education rests with the parents. The ability or inability of parents to contribute toward the educational costs is measured by need analysis systems such as the Basic Educational Opportunity Grant Program (BEOG), Illinois State Scholarship Commission awards (ISSC), or the American College Testing Family Financial Statement (ACT-FFS).

HOW TO APPLY FOR FINANCIAL ASSISTANCE

Applications for financial assistance should be filed as early as possible for the academic year in which aid is requested. In order to receive maximum consideration for financial assistance, applications must be received by the following deadline dates:

Fall Quarter	May 1
Winter Quarter	October 1
Spring Quarter	January 1

Before priority consideration will be given for financial aid based on need, students are required to file the American College Testing Family Financial Statement (ACT-FFS). NOTE: The financial statement should be mailed at least four weeks prior to the established deadline dates above. It must be filed each year the student reapplies for financial aid. In addition,

the *SIUE Financial Aid Application* must be submitted indicating the types of financial aid the student desires. All undergraduate students applying for financial aid must apply first to the Basic Educational Opportunity Grant Program (BEOG). Undergraduate residents of Illinois who are applying for other forms of financial aid based on need are also required to first apply for the Illinois State Scholarship Commission Monetary Award (ISSC).

Requests for applications and information about any of the programs briefly described herein can be obtained by contacting the Office of Student Work and Financial Assistance.

FEDERAL PROGRAMS

COLLEGE WORK STUDY

The College Work Study Program is designed to assist students with great 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 scholarship, grant, or loan.

NATIONAL DIRECT STUDENT LOAN

Students who demonstrate financial need are eligible to apply for a National Direct Student Loan (NDSL). The amount borrowed accrues no interest as long as the borrower remains at least a half-time student at any institution of higher education. The repayment schedule may be deferred up to three years if the borrower enters the military service or becomes a volunteer in the Peace Corps or VISTA. After graduation, up to five years may be deferred during periods enrolled and attending college for advanced degrees as a full- or half-time student. Repayment begins ten months from the date the borrower ceases to attend school on at least a half-time basis. Interest at the rate of three percent begins to accrue at the time of repayment. A ten-year period in which to repay the loan is available. Cancellation of the loan for full-time teaching is also available to qualified students.

Eligible undergraduate students may receive \$1000 per academic year. Total amount of all undergraduate loans may not exceed \$5000. Eligible graduate students may receive \$1875 per academic year. Total amount of all loans, undergraduate and graduate, may not exceed \$10,000.

SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANTS

The basic purpose of the Supplemental Educational Opportunity Grant (SEOG) Program is to assist full-time students of exceptional financial need who are from low-income families (normally below \$11,000 per year) and who would be unable to enter or remain in school without this financial aid. The grant is not repayable, and must be matched with an equal amount of financial aid through a National Direct Student Loan, scholarship, or grant-in-aid.

NURSING STUDENT LOANS AND SCHOLARSHIPS

The Nursing Student Loan and Scholarship Programs assist students with financial need to pursue nursing careers by providing financial assistance in the form of long-term, low-interest loans or scholarships. Only students who are officially admitted to the School of Nursing are eligible for participation.

Under the Nursing Scholarship Program, a student may receive a maximum of \$2000 per academic year to help defray educational expenses. The scholarship is not repayable, and must be matched with an equal amount of Nursing Loan.

Under the Nursing Student Loan Program, a student may borrow up to \$2500 per academic year, with a total loan not exceeding \$10,000. The interest rate is three percent, with deferment and cancellation provisions provided.

LAW ENFORCEMENT EDUCATION LOANS AND GRANTS

Law Enforcement Education Program (LEEP) grants are available to in-service law enforcement officers of local, state, or federal government agencies for the payment of tuition and fees only. These grants are awarded without regard to financial need. Officers who receive awards must enter into an agreement to remain in the service of a law enforcement agency for a period of two years following completion of the academic year for which the grant funds were provided.

LEEP loans are available to full-time students who are taking courses leading toward a certificate or a degree in a program related to law enforcement. Law enforcement personnel on academic leave may borrow in excess of tuition and fees by demonstrating financial need. The principal amount of any loan, plus interest, will be cancelled for service as a full-time officer or employee of a law enforcement agency, at the rate of 25 percent per annum for each year of service or its equivalent.

BASIC EDUCATIONAL OPPORTUNITY GRANTS

This federally sponsored program is designed to aid eligible undergraduate students in meeting educational expenses and to fill in the gap where parental or student resources fall short of meeting these expenses. The BEOG Program is used as the base in determining the total financial aid "package" of every undergraduate student. The recently enacted "Middle Income Student Assistance Act" provides greatly expanded opportunities to middle income families for Basic Grant awards for the 1979-80 school year. Therefore, all undergraduates applying for financial assistance from this University must first apply for the Basic Grant Program even if they have been denied in previous years.

Students are considered for this award if they are enrolled for at least half-time attendance. Awards for full-time students (12 quarter hours or more) range up to \$1800 per academic year. Only the three-quarter academic year is covered by the Basic Grant Program. (No summer awards are available.)

STATE PROGRAMS

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. Every undergraduate student who is requesting financial aid based upon need is required to first apply for this award.

SPECIAL EDUCATION TRAINEESHIPS AND FELLOWSHIPS

State and federal traineeships and fellowships are offered to students concentrating in special education. Special education students should apply through the Department of Special Education for these traineeships and fellowships which provide tuition, fees, and a stipend.

GUARANTEED STUDENT LOAN PROGRAMS

The Illinois Guaranteed Loan Program (IGLP) 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, credit unions, etc. All students, regardless of family income, are automatically eligible for federal interest benefits. This means that the 7 percent interest will be paid by the federal government as long as the student is enrolled in school and during authorized periods of deferments. A ten-year period in which to repay the loan is available. This begins nine months after graduation or withdrawal from school.

Eligible undergraduate students may borrow \$2,500 per academic year. Total amount of all undergraduate loans may not exceed \$7,500. Eligible graduate and professional students may receive \$5,000 per academic year. Total amount of all loans, undergraduate and graduate, may not exceed \$15,000. Applications can be obtained from banks participating in the program. Lists of approved Illinois banks are available in the Office of Student Work and Financial Assistance.

The Federally Insured Student Loan is available for students who are not residents of Illinois. Eligibility requirements are the same as for the Illinois Guaranteed Loan. The processing for these loans takes approximately six weeks.

ILLINOIS VETERANS SCHOLARSHIP

This scholarship is available to students with at least one year of active military service who entered service as a resident of Illinois and received an honorable discharge. An additional requirement is that the student returned to Illinois within six months following discharge.

The award pays tuition, activity fee, and graduation fee for four years of equivalent full-time enrollment. The scholarship holder has a twelve-year period in which to utilize the entitlement described above.

ILLINOIS GENERAL ASSEMBLY SCHOLARSHIP

These scholarships are awarded by representatives of the General Assem-

bly to residents of their legislative districts. The award may be for varying lengths of time and provides for tuition and activity fee.

To initiate a scholarship, contact your General Assembly representative directly.

INSTITUTIONAL PROGRAMS

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 fields, there are many challenging positions which develop administrative, research, or technical skills in the employee.

Students normally begin at the federal minimum wage and progress with merit and longevity increases. Students normally work 15-20 hours per week as their class schedule permits.

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

The office maintains a list of vacancies available in area business, industry, and service agencies. Information on full- and part-time summer jobs nationwide is also available.

SIUE TUITION WAIVER

The Board of Trustees of the University provides a limited number of tuition waivers to full-time students which provide the recipient with remission of tuition but not fees. These awards are based primarily on need, scholarship record, and participation in student activities. All tuition waivers are awarded by the Office of Student Work and Financial Assistance. NOTE: Illinois residents are required to first apply for the Illinois State Scholarship Monetary Award.

STUDENT-TO-STUDENT GRANT

The Student-to-Student Grant Program (STS) provides cash grants to students attending the University. The Program was established through a \$1.50 per student fee assessment each quarter. Grants of varying amounts are made to students who demonstrate financial need and are enrolled at least half-time. Awards are made on a quarterly basis, and separate applications are required for each quarter for which the STS Grant is requested. Applications are available during the first two weeks of each quarter in the Office of SWFA.

EMERGENCY SHORT-TERM LOAN

Funds are available through the Office of Student Work and Financial Assistance for small, thirty-day emergency loans to full-time students. Such funds are not available for the purpose of meeting routine educational costs such as tuition and fees, room and board, or other normal expenses that can be anticipated. Short-term loans are available for emergency situations only.

The maximum loan is normally \$50 and proof of the emergency must be demonstrated to the Short-Term Loan Advisor. When money is needed specifically for tuition and fees, applicants should inquire about the availability of other programs for meeting such costs.

OTHER FINANCIAL AID

The SIUE Foundation has established several programs of loans and grants to assist students in meeting educational expenses. Applicants for SIUE Foundation loan and grant funds must demonstrate financial need and have an acceptable academic record. Applications and information regarding specific requirements can be obtained by contacting the Office of Student Work and Financial Assistance.

STUDENT CONSUMER INFORMATION HANDBOOK

Title IV of the Educational Amendments of 1976 requires that, in addition to the information contained in this bulletin, a statement of the rights and responsibilities of students receiving financial aid must be made available to those requesting it. The Office of SWFA has prepared a *Consumer Information Handbook* which includes criteria for continued program eligibility, for determining academic progress, the estimated cost of attendance, the institutional refund and withdrawal policies, and other pertinent information. This handbook is designed to make financial aid programs and procedures clear to those enrolled or planning to enroll at SIUE. We strongly encourage you to phone, write, or visit the Student Work and Financial Assistance Office, Room 2308, John S. Rendleman Building, to secure this handbook. It is important that you understand your rights as well as what is expected of you as a recipient of financial aid.

VETERANS' INFORMATION

GI BILL

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, Incomplete, 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. Also, 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 any Veterans Administration Office or the University's Veterans Certification Section which is located in the Enrollment Center, Room 1308, John S. 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 returned 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 the veteran is receiving benefits, he/she should notify the Veterans Administration in Chicago immediately.

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

Academic Load	No De- pendents	1 De- pendent	2 De- pendents	Each Addi- tional De- pendent
12 or more hours	\$311	\$370	\$422	\$26
9 - 11 hours	233	277	317	19
6 - 8 hours	156	185	211	13

CREDIT FOR MILITARY EXPERIENCE

Students who have completed military basic training may be eligible for 3 credit hours for physical education, 3 for health education, and 3 for aerospace studies. Applications for credit for military service may be made through the Office of Admissions and Records, as well as for academic credit for work done in service schools.

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 Experiences in the Armed Forces*, are followed.

No credit is allowed for college-level GED tests.

ILLINOIS VETERANS' SCHOLARSHIPS

For information concerning this award, refer to a preceding section on State Programs of financial assistance.

VETERANS' SERVICE PROGRAMS

The Office of Veterans Affairs is located in Room 1310 of the John S. Rendleman Building. The office is staffed by veterans and offers comprehensive services to veterans including employment referrals, tutorial assistance, peer counseling, general information regarding veterans' benefits and legislation, financial aid referral, and admission and registration assistance.

The Office of Veterans Affairs also 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.

VETERANS UPWARD BOUND

Administered by the Delinquency Study Center, Veterans Upward Bound, in accordance with U.S. Office of Education guidelines, is designed specifically to provide academic instruction to educationally disadvantaged veterans who may or may not possess a G.E.D. or high school diploma. The program offers remedial and/or refresher courses for the purpose of elevating the basic educational skills of veterans so that they may compete with other students at the post-secondary level. No college credit is given since the program is totally developmental, and veterans enrolled in the program

are eligible for monthly VA benefits which are not deducted from their normal entitlement under the GI Bill. For more information, contact either Veterans Upward Bound or the Office of Veterans Affairs.

V.A. MAN ON CAMPUS

The Veterans Administration has placed counselors on college campuses throughout the United States. SIUE has a V.A. representative on campus to assist students and the public in matters concerning the Veterans Administration. Located in Room 1310, John S. Rendleman Building, the "Vet Rep" communicates directly with the V.A. Regional Office in Chicago on any problem relating to V.A. matters.

CHARLES E. STIKES, Vice President for Student Affairs

Counseling and Testing Center

Student Activities

Foreign Student Services

Campus Recreation

Men's Intercollegiate Athletics

Women's Intercollegiate Athletics

Religious Center

Health Services

Placement Services

CHAPTER

2

STUDENT ACTIVITIES AND SERVICES



CHARLES E. STIKES, *Vice President for Student Affairs*

Counseling and Testing Center
Student Activities
Foreign Student Services
Campus Recreation
Men's Intercollegiate Athletics
Women's Intercollegiate Athletics
Religious Center
Health Service
Placement Services

CHAPTER 2

STUDENT AFFAIRS DIVISION

The University recognizes the importance of providing students every opportunity to benefit in the fullest manner from their university experiences. The primary goals of Student Affairs are to provide services which help students to continue their education and to be in the best possible mental and physical condition for classroom learning. The growth and development of students is facilitated through a variety of extra-curricular programs and activities.

The University is concerned with an integrated approach to student needs and problems in intellectual, social, spiritual, and physical areas. Students may learn about and be referred to specialized services throughout the University by publications describing the services and by various offices within the Student Affairs Division.

VICE PRESIDENT FOR STUDENT AFFAIRS

The Vice President for Student Affairs is the chief executive and administrative officer for the Student Affairs Division. He is responsible for the proper management, employing competent personnel, and developing and maintaining a suitable organizational structure within the Student Affairs Division. He is also responsible for formulating divisional policies.

The Vice President for Student Affairs reports directly to the President and is accountable to him. The following departments and positions report to the Vice President for Student Affairs: Dean of Students, Assistants to the Vice President for Student Affairs, Foreign Student Advisor, Director of Student Activities, Director of Student Work and Financial Assistance, Director of Counseling and Testing Center, Director of University Placement Services, Director of University Health Service, Director of Recreation, Director of Men's Athletics, and Director of Women's Athletics.

COUNSELING AND TESTING CENTER

The Counseling and Testing Center furnishes a variety of professional services to the University's students, faculty, and staff free of charge. Psychological counseling is offered for persons who have concerns which are personal/emotional (getting along with yourself), interpersonal/social (getting along with others), or developmental (discovering who you are and what you want). Educational counseling is provided for students who are entering or returning to the University, selecting or changing their major course of study, or experiencing difficulties with their academic work. Career counseling is available for those interested in relating their personal and educational experiences (who you are) to occupational and life planning (where you are going). Marital and couples counseling is available to those who want to enhance their relationships or resolve conflicts. Crisis counseling is provided for persons whose concerns or problems are immediate and severe. The Center also conducts a variety of workshops and serves as a resource for career, self-help, and referral information.

Several testing programs that may be of interest to University students are administered by the Center. These include: American College Testing Program (ACT); American College Testing-Proficiency Examination Pro-

gram (ACT-PEP); Graduate Record Examination (GRE); Miller Analogies Test (MAT); and Medical College Admissions Test (MCAT). The Center also administers proficiency examinations for cooperating academic departments.

Counseling appointments and testing information can be obtained in person or by telephone. The Center is open from 8 a.m. to 5 p.m. Monday through Friday. In accord with professional ethics, University policy, and the law, confidentiality is maintained with regard to clients' identities and records.

A student wishing to initiate withdrawal from the University should also report to the Counseling and Testing Center. Additional detailed information concerning withdrawal from the University may be found under the section Withdrawal from the University.

IDENTIFICATION CARDS AS CERTIFICATE OF REGISTRATION

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 Bursar's Office in the Rendleman Building.

A certificate of registration, issued each quarter at the time of registration, certifies payment of tuition and various fees. The identification card is used with the certificate of registration for the current quarter to identify students who have paid the student activity fee and are eligible to use the University facilities.

The identification card and the certificate of registration are legal documents. A student who loans, borrows, or alters these cards is 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.

RAPE AND SEXUAL ABUSE CARE CENTER

The Rape and Sexual Abuse Care Center is a new service office recently initiated on the Edwardsville campus. The trained personnel in this center cooperate with area police agencies and hospitals in providing counseling and advice to rape victims or to victims of sexual abuse. Individuals wishing to contact the office should either address the Rape and Sexual Abuse Care Center, Southern Illinois University at Edwardsville, or telephone.

RAP ROOM

The Rap Room (formerly ABCDVD) is an information and referral service staffed by students and supervised by the Counseling and Testing Center.

Information is available on where to get help with problems involving alcohol and drugs, sexuality and contraception, personal and relationship concerns, or requiring medical, legal, or psychological assistance. The Office maintains contact with referral resources on and off campus and has a library of pamphlets and reference materials. The Rap Room, located in Room 1061 of the Student Activities area of the University Center, is open Monday through Friday from 9:30 a.m. to 4:30 p.m. Extension services are also offered in the Tower Lake Commons Building conference room Wednesday evenings from 6 to 9 p.m. If the Rap Room can be of help, contact this office in person or by telephone.

VEHICLE REGISTRATION

Each person who operates a motor vehicle in connection with attendance or employment at Southern Illinois University at Edwardsville must register that vehicle with the Vehicle Registration and Fees Section of the Bursar's Office, Room 1102, John S. Rendleman Building.

Vehicle Regulatory Policies which are in effect at property owned or controlled by the University are sanctioned by the Board of Trustees and are under the jurisdiction of the President of the University. Copies of the regulations are available at the Vehicle Registration Desk located in the Bursar's Office and other locations throughout the University. Correspondence regarding Parking and Traffic can be conducted through Vehicle Registration and Fees, Box 42, Southern Illinois University, Edwardsville, Illinois 62026.

STUDENT ACTIVITIES OFFICE

The staff of the Student Activities Office is available to all campus groups and individuals for assistance in planning, conducting, and evaluating activities and programs. Participation in any group or organization is open to all students, and students interested in a particular group should contact the Student Activities Office.

Besides honorary organizations which stimulate and recognize academic achievement, other groups exist which appeal to the educational, religious, social, recreational, and political interests of students. Through the use of Student Activities funds, certain campus-wide organizations are able to sponsor a variety of programs for the entire campus community. Participation in these organizations and programs enables students to add a new dimension to their lives while at the University.

A wide variety of activities are available throughout the year to SIUE students and community guests. Examples include: Welcome Back Week, Winterfest, and Springfest involving three to five days of films, entertainment, games, and other activities for enjoyment and relaxation; quarterly film series emphasizing the popular as well as serious and educational aspects of film; guest lecturers; constantly changing art exhibits in campus galleries; travel programs, craft classes, and a host of recreational and leisure time activities. Available also is a Student Development/Leadership Training Program which is aimed at setting a climate whereby the student can be prepared to accept and successfully meet the challenges of life in our

society. The focus of student development is directed mainly toward the student as an individual and as a member of groups and organizations. For students who desire to be actively involved in campus affairs, approximately 100 positions exist in campus committees and governance councils dealing with such matters as curriculum, allocation of activity fees, parking and transportation, student rights and grievances, minority and affirmative action concerns, and other topics that affect the daily lives and welfare of students and the University. Campus publications provide yet another alternative for student involvement.

During the academic year 1978-79, the following organizations were registered by Student Government.

ALL-UNIVERSITY ORGANIZATIONS

Alestle
Cheerleaders
Community Involvement Project
Cougar Guard (Campus Mascot)
Fraternity-Sorority Conference

Major Events Council
Student Government
Tower Lake Area Council
University Center Board

FRATERNITIES

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

Omega Psi Phi
Epsilon Beta Gamma Frasority
Sigma Phi Epsilon
Sigma Pi
Tau Kappa Epsilon
Zeta Alpha Phi
Zeta Phi Theta, Frasority

SORORITIES

Alpha Kappa Alpha
Alpha Phi
Alpha Sigma Tau
Delta Sigma Theta

Gamma Sigma Sigma
Phi Chi Theta
Sigma Gamma Rho

SPECIAL INTEREST GROUPS

Rap Room (ABCDVD)
Afrikan History and Cultural Society
African Students Organization
Arab Student Organization
Black Student Association
Chess Club
Conservative Club
Disabled Students Association
ENACTS (Environmental Action)
Illinois Public Interest Research

International Club
Iranian Student Association
Masters of Sounds
National Town Meeting
Project S.A.F.E.
Recreation Club
University Ambassadors
Wagner Potters Association
Women for Women

RELIGIOUS ORGANIZATIONS

Baha'i Club
Baptist Student Union

Christian Student Fellowship
Inter-Varsity Christian Fellowship

DEPARTMENTAL ORGANIZATIONS

Accounting Club	History Club
Aerospace Club	La Sociedad Hispanics (Spanish)
Chem Club	Philosophy Club (Neo-Thalesian Society)
Data Processing Management Association	Physics Club
Environmental Systems Technology Association (ESTA)	Quonset Experimental Theater
Graduate Association of Sociology Students	Science and Technology of Arc
Graduate Association of Students in Psychology	Student Nurses Association
	Student Social Workers Association
	SIUE Chapter of Industrial Relations

PROFESSIONAL AND HONORARY ORGANIZATIONS

Activities Honor Society	National Student Speech and Hearing Association
Administrative Management Society	Pi Omega Pi
American Society of Civil Engineers	Preprofessional Honors Society
Arnold Air Society	Society of Professional Journalists (Sigma Delta Chi)
Association of Scholars	Student Council for Exceptional Children
Beta Gamma Sigma (Business)	Student Planning Association
Honor Society of Nursing	
Kappa Delta Pi (Education)	
Lambda Alpha (Anthropology)	
Mu Phi Epsilon (Music)	

In addition to those organizations listed, there are twenty social fraternities and sororities at SIUE. Each contributes in its own way to enrich student life. All, with the exception of one, are nationally recognized. Some are service-oriented in nature; some are purely social.

There are other organizations and activities which are difficult to categorize. For example, the Co-recreation and Intramural Organization offers men and women competitive and noncompetitive activities such as tennis, basketball, cross-country and track, soccer, canoe racing, billiards, bowling, etc. SIUE has several choral groups, a debate team, other well-known forensics clubs, and a modern dance company which travels across the United States. There are regular judo and karate meetings, yoga classes and transcendental meditation groups. In addition, many spontaneous "on the spot" groups form and disband, publicizing times and places via handwritten notes placed on bulletin boards throughout the campus.

FOREIGN STUDENT ADVISOR'S OFFICE

The Foreign Student Advisor's Office is located within the Student Affairs Division in Room 2332 of the John S. Rendleman Building. Services furnished by this Office include guidance and counseling from the time a prospective foreign student makes application for admission throughout his period of attendance at SIUE. Prior to his arrival, financial evaluation and advice is remitted by mail. Upon admission, information helpful to familiarizing him to this area is distributed. After arrival, orientation sessions either group or personal, are conducted and counseling on any personal

cultural, financial, or academic problem is available. Every effort is made to assure that the student maintains proper immigration status by explaining and implementing regulations, changes, and requirements; checking and verifying forms prior to forwarding to Immigration and Naturalization Service; and maintaining files on each student. Assistance is given in locating temporary housing, transportation, and making the transition into a new culture. Throughout the year events are programmed through cooperation between the Foreign Student Advisor's Office and the International Student Council.

CAMPUS RECREATION

The interaction and participation in the recreation program is a vital and necessary phase of the physical and social development of all members of the University community. It is the goal of Campus Recreation to provide the necessary facilities, equipment, and programs that will create a wide variety of opportunities for both formal and informal recreation activities.

Recreational programming is initiated from the Intramural Facility or from the Tower Lake Recreation Area. Together, the two facilities provide a wide variety of activities and programs throughout the year.

The Intramural Facility provides for indoor activities such as basketball, volleyball, hoc-soc, and weight training. Outdoor facilities located in this area include eight handball courts, four softball diamonds, football and soccer fields and six tennis courts. The tennis courts are lighted and are available until 10:00 p.m. daily. In addition to these facilities which are used on a free-time, spontaneous basis, the recreation staff coordinates an extensive program of intramural activities for those seeking recreation on a more formal and competitive level.

The Tower Lake Recreation Area Facility includes a marina with canoes, sailboats, and rowboats, available for a small rental fee, and a sand beach area with shower and locker facilities and a concession stand. A sheltered picnic pavilion, picnic tables, barbeque pits, and other outdoor recreational equipment is also available. At the entrance to the Recreation Area is the Information Center which also serves as a bicycle and camping equipment check-out point. This equipment is used by students, faculty, and staff whenever they are involved in Campus Recreation sponsored activities such as overnight camping and/or float trips and bicycle tours. The equipment is also available for individual use for a small rental fee.

Additional information about Campus Recreation programs can be obtained by calling the Intramural Office or by calling the Office of Student Affairs.

MEN'S INTERCOLLEGIATE ATHLETICS

The men's intercollegiate athletic program at Southern Illinois University at Edwardsville consists of eight varsity sports: soccer, cross-country, basketball, wrestling, baseball, track, golf, and tennis. Several of the sports operate some form of a junior varsity program to provide learning experience for those who need added preparation to become a varsity player.

As a member of the National Collegiate Athletic Association, SIUE is

classified as a Division II School for legislative and competitive purposes. However, the soccer team competes in the Division I classification. A scholarship program is available to Cougar athletes which enables all teams to be competitive in their classifications. Cougar athletic teams have received national and international recognition in several sports, the most noteworthy being soccer and wrestling.

The soccer team captured the first NCAA College Division Soccer Championship conducted in 1972, and it was the only major soccer school to go undefeated that year. In 1973 and 1974, they were strong contenders for the national championship in Division I. In 1975 they were Division I finalists. Five soccer players have been selected as United States Olympic Team players. A number of soccer alumni play in the professional leagues.

SIUE wrestlers earned third place and second place team honors in Division II tournament championship competition in 1974 and 1975 respectively.

SIUE baseball teams have reached the final round of the Division II Baseball Championship, and are perennial contenders for this crown. A number of baseball alumni play in the professional leagues.

Facilities for home contests include a 4000 seat field enclosed for soccer, a 1500 seating capacity enclosed for baseball contests, a cross country course, and a newly constructed track. The wrestling team holds its home meets in the ballroom of the University Center. Six newly constructed tennis courts serve as the site for home tennis matches. The golf team utilizes Belk Park for its home matches. The SIUE basketball team plays home games at Edwardsville High School.

WOMEN'S INTERCOLLEGIATE ATHLETICS

SIUE's six women's varsity teams offer a wide variety of competitive opportunities in basketball, cross country, field hockey, softball, tennis (spring and fall seasons) and track and field (including a winter indoor season). As members of AIAW's new Division II, SIUE expects to be in excellent position to continue its highly successful individual and team performances in a well balanced program. Our strategic location with respect to availability of amateur club as well as professional teams offers good opportunities for varsity participants.

An expanded support program for athletic grants to student athletes has been made available and will permit our program to grow in both size and quality. We strive to maximize opportunities for local students and seek to enhance team and individual standings with a suitable mix of student athletes from outside the area. For all, our aim is to provide excellent conditioning, competitive and educational experiences under a dedicated and highly skilled staff.

Facilities for softball and field hockey are second to none in the entire Midwest. Our women's tennis, basketball, track and field and cross country teams share facilities used by our men's teams. Equipment and uniforms are of excellent quality.

For further information, contact the Women's Athletic Director.

RELIGIOUS CENTER

Occupying one of the most architecturally distinctive structures on campus, the Religious Center was designed by R. Buckminster Fuller. Dominated by a geodesic dome with a superimposed world map, the Center is located in the campus core near the University Center.

Seven campus ministers, representing eight different denominations, present an ecumenical approach to religion. Worship is celebrated in the Center daily and Sunday.

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

HEALTH SERVICE

The function of Health Service is to deal with illness on campus in such a way as to reduce the level of impaired performance among students, faculty, and staff and to develop outreach programs emphasizing good health habits. This is to be done within the limits imposed by the size and professional status of the staff, by legal obligations, and by the available facilities and funds.

Health Service is located in Room 0202 of the John S. Rendleman Building. The office provides an initial service of emergency treatment, general outpatient care, laboratory diagnostic tests, and a limited pharmacy operation. There is close cooperation between this office, Counseling and Testing Center, and Rap Room. Additionally, Health Service staff work closely with local and St. Louis metropolitan area health care providers.

A Medical History Form must be completed by each person utilizing Health Service at the time of or before the first visit. Physical examination requirements of specific University departments are handled in Health Service.

UNIVERSITY POST OFFICE

The SIUE Branch Post Office is open daily from 7:00 a.m. to 4:00 p.m. (Monday through Friday). Mail is dispatched at 7:00 a.m., 11:00 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; alien address cards; income tax forms (Federal, Illinois, Missouri); and rental of postal lock boxes. The Branch Post Office is located in Room 0111 of the John S. Rendleman Building.

UNIVERSITY PLACEMENT SERVICES

Placement Services at Southern Illinois University at Edwardsville is operated on a centralized and university-wide basis. The office is maintained as a service to students, graduates, alumni, and employers. The

function of the office is to serve as a career counseling center to advise students of career opportunities and the preparation necessary for certain careers. The office maintains up-to-date information on current job trends, current job openings, and a resource library on careers with business, industry, government and teaching compiled from materials furnished by various employers. This information is located in open files in the reception area of the office. Employers from business, industry, government, schools and colleges visit the Placement Services office to interview students and alumni interested in employment with their organization.

Placement Services also assists those interested in teaching positions. Student teaching evaluations are a part of the prospective teacher's file. A complete file on current teaching positions is maintained by Placement Services. Other services available are: Career Counseling; Resume Development; Letter of Inquiry Advice; Interview Pointers; and Interview Arrangements with Employers. Individuals desiring to use Placement Services to locate a career position should register with the office at least three quarters before their departure from the campus. For further information contact the Director of University Placement Services.

ACADEMIC INFORMATION



Degrees and Majors
Graduation Requirements
Academic Regulations
Grading System
Transcripts
The General Studies Program

CHAPTER 3

DEGREES AND MAJORS

Undergraduate degrees available at Southern Illinois University at Edwardsville are the Bachelor of Arts, Bachelor of Fine Arts, Bachelor of Music, Bachelor of Science, Bachelor of Science in Engineering, and Bachelor of Liberal Studies. A bachelor's degree normally requires four years of study. Below are listed the major and minor areas in which course work is offered at the undergraduate level. Information pertaining to secondary education and student teaching may be found in the School of Education section of Chapter 4.

Aerospace Studies ¹	History
American Studies	Human Services
Anthropology	Instructional Technology ¹
Art	Latin American Studies ¹
Art and Design	Liberal Studies
Biological Sciences	Mass Communications
Black American Studies ¹	Mathematics, Statistics, and
Business Administration	Computer Science
Business Education	Music
Chemistry	Nursing
Comparative Literature ¹	Peace Studies ¹
Construction	Philosophy
Early Childhood Education	Physical Education
Earth Science	Physical Science
Economics	Physics
Elementary Education	Psychology
Engineering	Recreation
English	Social Work
Environmental Science ¹	Sociology
Environmental Systems Technology	Special Education
Foreign Languages	Speech Communication
Geography	Speech Pathology and Audiology
Government	Theater
Health Education	Women's Studies ¹

¹Minor only.

GRADUATION REQUIREMENTS

In order to graduate from the University with a bachelor's degree, students must satisfy the General Studies requirements which are explained in this chapter. They must also satisfy the requirements of their major, and in many cases, a minor. If students plan to teach, they should meet the requirements for teacher certification. There are also specific requirements for graduation for each degree, and these are explained in appropriate sections of this catalog.

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.

After the completed applications have been returned to the Office of Admissions and Records, graduation-checks will be mailed to the students. The Office of Admissions and Records evaluates the General Studies and University degree requirements while the major and minor departments determine their own requisites.

In addition to completing the steps for graduation, it is the responsibility of the students that they meet all University requirements and have no outstanding financial obligations to the school.

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.

Commencement ceremonies are held each year in June at the end of the spring quarter. Attendance at the exercises is not compulsory.

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

A fee of \$10.00 is established for all persons receiving degrees. The fee 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 Book Store in the University Center. Questions regarding the cap and gown as well as invitations should be referred to the University Book Store.

The University has a Graduation Appeals Committee, whose function it 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 matter at issue is of an unusual nature and that it has resulted due to conditions beyond control of the student. Appeals are initiated through the Office of Admissions and Records. The committee meets quarterly.

BACHELOR'S DEGREES

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 a 3.00 overall grade-point average.

Each candidate for the degree must also complete a minimum of 192 hours of credit in approved courses. A student 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 quarter hours required for the degree. Each degree candidate must com-

plete a minimum of 48 quarter hours in residence at Southern Illinois University at Edwardsville as well as meeting all degree program requirements.

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

FOREIGN LANGUAGE REQUIREMENTS FOR BACHELOR OF ARTS DEGREES

In addition to the University's general requirements for a bachelor's degree, a person working toward a Bachelor of Arts degree must complete 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

No student may be graduated from the University who has not satisfied the State of Illinois legal requirement 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 the 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.) This stipulation may be satisfied by examination administered by Counseling and Testing Center, or by satisfactorily completing one of the following courses: Government 203, GSS 200, 201, 202, 220, History 426 or Experiment in Higher Education 201a.

ADVANCED DEGREES

For information concerning master's degrees or other advanced degrees, refer to the Graduate School Catalog or direct inquiries to the Dean, Graduate School, Southern Illinois University at Edwardsville.

ACADEMIC REGULATIONS

UNIT OF CREDIT

Southern Illinois University at Edwardsville operates on the quarter system. Therefore, references to hours of credit mean quarter hours rather than semester hours. One quarter hour of credit is equivalent to two-thirds of a semester hour, or one semester hour of credit equals one and one-half quarter hours. One quarter hour of credit represents the work done by a student in a lecture course attended fifty minutes per week for one quarter, and, in the case of laboratory and activity courses, the stated additional time.

COURSE NUMBERING SYSTEM

Generally, those courses which are numbered at the 100- and 200-level are for freshmen and sophomores. The 300-level courses are for juniors and seniors. Only students who have graduate standing or more than 96 hours of undergraduate credit may register in a 400-level course. Undergraduates may not enroll in 500-level courses. In addition, 500-level courses may not be counted toward a baccalaureate degree.

ACADEMIC LOAD

The normal academic load for a student is 16 hours. The maximum is 18 hours.

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

Undergraduate students may be allowed by the dean of their academic unit to exceed 18 hours.

Students on scholastic probation may not take more than 14 hours without approval of the dean of their school. A student 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, a number of programs may carry different requirements and a student attending the University under a scholarship, loan, or other type of program requiring full-time enrollment, should check to make certain that requirements of the specific program are being met.

CLASS STANDING

An undergraduate student is classified as a freshman, sophomore, junior, or senior, depending upon the number of hours that have been successfully completed toward the degree. A freshman is a student who has completed fewer than 42 hours; a sophomore, from 42 through 89; a junior, from 90 through 137; and a senior, 138 or more.

EXTENSION AND CORRESPONDENCE

A maximum of one-half the number of hours required for the bachelor's degree, or 96 hours, may be taken by extension and correspondence courses combined. Of this total, not more than 48 hours may be taken in correspondence.

While Southern Illinois University does not maintain a correspondence school, courses taken by correspondence from institutions which are accredited by appropriate regional accreditation association are regularly accepted if the grade earned is C or above.

SCHOLASTIC STANDARDS

1. When students' cumulative grade-point averages fall below 3.00, they are given a 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 subject to the restrictions imposed on probationary students.
3. Students on Scholastic Probation will remain in this category until:
 - a. They complete three successive quarters of C average or better work, 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 dean or director of their unit for possible reinstatement.

HONORS DAY

In recognition of high scholarship, an Honors Day convocation is held each spring. Candidates for a bachelor's degree in June or August who have maintained a grade-point average of 4.50 or more for all their work through the winter quarter of their senior year are honored. Each junior having a 4.50 grade-point average is also honored. Each sophomore and freshman who has a 4.25 grade-point average is honored at the convocation. A transfer student must have earned a minimum of 24 hours at Southern Illinois University at Edwardsville to be eligible for Honors Day. Graduating seniors are also recognized at Commencement on the graduation program, and their diplomas designate honors on the basis of Highest Honors (4.90 or higher), High Honors (4.75-4.89), and Honors (4.50-4.74).

DEAN'S LIST

The Dean's List is published at the end of each quarter. A student must have a minimum of 12 quarter hours passed and earn a minimum grade average of 4.25 in order to be included on the Dean's List.

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. Unless the instructor has specified a shorter period of time, an Incomplete grade which is not completed within one year or by the time of graduation will automatically be changed to E.

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. Hours count toward graduation.

NO CREDIT—Used for courses taken under Pass/No Credit option. 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 are included in determining student grade-point averages for academic retention purposes.

Authorized course withdrawals made through the program change process do not receive grades when made during the first four weeks of a quarter. Thereafter, authorized withdrawals receive W from the fifth through the eighth week. After the eighth week, a grade of W may be assigned only upon submission of the completed late withdrawal form which bears the signatures of the student and the instructor.

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.

A student registering for a course on an audit basis receives no letter grade and no credit hours. An auditor's registration card must be marked accordingly and fees paid on the same basis as are credit courses. An auditor is expected to attend regularly and is to determine from the instructor the expected amount of work. If an auditing student does not attend regularly, the instructor may determine that the student should not have the audited course placed on the record card maintained in the Office of Admissions and Records. A student registering for a course for audit or credit may change to a credit status or vice versa through the official program change method during the first four weeks of a quarter. Thereafter the change may not be made.

In the event of repeat courses—or whenever an undergraduate student at Southern Illinois University at Edwardsville takes the same course more than once, receiving a grade each time—all grades shall be recorded on the transcript, but only the last grade shall be used in computing the grade-point average. Students may repeat a course originally taken at another school by taking the same course at Southern Illinois University. It should be determined in advance by the Office of Admissions and Records or the appropriate Department that the Southern Illinois University course is a repeat. Students who repeat Southern Illinois University courses at other schools will have both grades counted in their grade-point average. However, only the hours of the last completed course will count toward graduation.

The official record of a student's academic work is maintained in the Office of Admissions and Records.

TRANSCRIPTS

Students are entitled to a free transcript of their university record provided they have fulfilled all their financial obligations to the University.

A minimum of two weeks should be allowed in order to obtain a transcript of a student's academic record from the Office of Admissions and Records.

The request must be in writing.

PROFICIENCY EXAMINATIONS

Students with superior backgrounds in certain subjects may qualify to receive credit in related courses by demonstrating their achievement in most General Studies courses as well as certain courses in other subjects. A listing is maintained in the Office of Academic Advisement (Room 1310, Rendleman Building) of those courses for which proficiency examinations are regularly available. Information regarding time and place of testing and other detailed instructions are included in this listing. Tests are given by the Departments themselves, by the testing service of the Office of Academic Advisement, and by Student Development Services.

The Proficiency Examination Program (including non-General Studies courses as well as General Studies courses) is administered by the Director of the Office of Academic Advisement.

A student who desires to take a proficiency examination in any course should initiate the procedure with the Office of Academic Advisement. In many cases, course guides and reading lists are available from the appropriate academic department, for persons interested in taking the proficiency examination.

Any student may take any available proficiency examination subject to the following limitations: (a) A maximum of 48 hours, including credit earned through the College Entrance Examination Board's Advanced Placement Program, may be gained through proficiency examination. (b) Students may not take a proficiency examination for a specific course more than once, nor may they take a proficiency examination in a course in which they have previously received a grade.

After a student has completed a proficiency examination, credits and grade-points shall be granted according to the grade achieved on the test, as follows: (a) If a student receives 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" and the grade earned counts in the grade-point average. (b) If a student receives a grade of C on a proficiency examination, the record shows the name of the course, the hours of credit granted, and a notation, "credit granted by proficiency examination" and the grade earned does not count in the student's grade-point average. (c) If a student receives a grade of D or E on a proficiency examination, no credit is received and the record shows nothing regarding the proficiency examination. However, the proficiency examination grade report form is filed in the student's folder for reference purposes, and to prevent re-examination.

An alternative procedure available in certain General Studies courses

for proficiency examination involves student enrollment in the corresponding course. (The procedure is sometimes referred to as an in-class proficiency examination.) Under this plan, proficiency examinations are available to students in some classes for which they have registered. The examinations are administered 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 as a replacement on their schedule. 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.

ADVANCED PLACEMENT PROGRAM (COLLEGE BOARD)

A high school student who is qualified through registration in an advanced placement course in high school or through other special educational experience 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 specific subjects, such as English composition, a foreign language, history, biology, chemistry, mathematics, or physics. A national examination is given in each subject administered through the Educational Testing Service, which is intended to measure the achievement of the student, and determine at what point the student 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. The marked papers are sent to the University which the student has indicated will be attended. To receive credit, a person must normally earn a grade of 5, 4, or 3 on the examination provided by the College Board at the completion of the high school course.

Ordinarily, the maximum credit granted through Advanced Placement Examinations is 16 hours, and is not used in computing the student's grade-point average. Credit granted at another accredited college or university under this plan is transferable to this University up to a maximum of 16 hours. Students may appeal to their academic dean to be granted more than 16 hours.

The following courses are those in which a student may currently earn credit through the Advanced Placement Examination of the College Board.

- (1) Physics: 206a-5, 206b-5, 206c-5.
- (2) Chemistry: Chemistry 105-5; 125a-5; 125b-5; GSM 120-4.
- (3) Biology: Biology 200, GSM 130-4, 131-2, 230-4.
- (4) History: European: GSS 101-4, 102-4; American: GSS 200-4, 201-4, 202-4.
- (5) English: GSK 101-4, 102-4.
- (6) Foreign Languages: French: 123-12, 201-3; German: 126-12, 201-3; Spanish: 140-12, 201-3.

(7) Mathematics: 150a-4, 150b-4.

(8) Music: GHA 230-4.

As previously indicated, students who achieve a grade of 5, 4, or 3 on the Advanced Placement Examinations receive credit for the appropriate courses, except in chemistry where a score of 3 does not provide credit.

Results should be sent to the Office of Admissions and Records, Southern Illinois University at Edwardsville, Edwardsville, Illinois 62026.

COLLEGE LEVEL EXAMINATION PROGRAM

Southern Illinois University 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 units (hours) can be earned through CLEP via General and/or Subject Examinations. This credit is applicable toward the Bachelor of Science or Bachelor of Arts 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 a student previously has 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 a student is 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. An individual may take the tests prior to enrollment in this University and still receive credit. Final recording of credit upon the Permanent Record Card, however, is contingent upon matriculation at Southern Illinois University at Edwardsville.

The tests are administered locally at the official CLEP Testing Center in the Office of Academic Advisement on the third Saturday of each month.

Individuals who take the tests and who wish to apply for credit through Southern Illinois University should have the results sent to: Records Department, Office of Admissions and Records, Southern Illinois University, Edwardsville, Illinois 62026.

GENERAL EXAMINATIONS

The following amount of credit is offered for the corresponding General Examination: English Composition — 8 quarter hours; Humanities — 4 quarter hours; Mathematics — 4 quarter hours; Science — 8 quarter hours; Social Science-History — 4 quarter hours.

SUBJECT EXAMINATIONS

When approved, as described in the preceding paragraph, credit will be

awarded for Subject Examinations on the basis of the number of credit hours in the pertinent courses.

PASS/NO CREDIT POLICY

Under this option the student receives a Pass for grades A, B, or C and a No Credit for grades D or E. Students, at the time of declaring Pass/No Credit, 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. A student 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.

A decision 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.

THE GENERAL STUDIES PROGRAM

Students who expect to receive the baccalaureate degree from this University with the exception of those in the Dean's College must complete the General Studies Program.

A General Studies Committee, composed of faculty representatives, student representatives, and administrators, is responsible for determining broad policies and approving specific courses and sequences of courses to be offered. The Director of the Office of Academic Advisement is responsible for the implementation of these policies. The individual courses are taught by the academic unit for which the courses were approved.

AIMS AND PURPOSES OF THE GENERAL STUDIES PROGRAM

The education of an enlightened people through the transmission of the culture of our times is a basic objective of higher education. Specialists themselves realize that rigid concentration within any field of study may deprive them of broader understandings so important for participation in life as citizens and parents. Our educational efforts, therefore, must produce individuals with an ability to use knowledge in a way which also advances social and cultural life. Our kind of free and democratic society cannot endure without such citizens.

General Studies are only part, not the whole, of an education. While General Studies can conceivably help students in their choice of occupation and can contribute to their success in a given occupation, their principal objective is not to develop vocational skills. They comprise that portion of the total curriculum which is concerned with the common needs and which assist the student to be more at home in a world that increasingly demands more of all people in terms of the intellectual, spiritual, and social. It is necessary to prepare each student to assume proper responsibilities in a world of rapidly expanding knowledge, rapidly expanding population, technological advance, and consequent changes.

There is a basic unity of knowledge which the General Studies Program attempts to exhibit. The General Studies Program tries to lay a foundation upon which the student will build a superstructure of understanding and achievement. Such a background should complement the specialized studies which the student undertakes in pursuing a concentration.

An opportunity is provided for students to gain experience in several subjects and, hopefully, to make an unhurried selection of a professional goal and an area of concentration. If students have made a tentative choice of their educational goal, they may carry courses in their area of special interest concurrently with the basic courses of the General Studies curriculum.

The General Studies curriculum at Southern Illinois University at Edwardsville is one of unique quality, and accommodates many different levels of preparation for college. This philosophy permits the greatest possible number of persons an opportunity to reach their fullest potential while concurrently directing their efforts towards a stronger and happier democratic society.

THE FIVE GENERAL STUDIES AREAS

The General Studies Program utilizes a classification for knowledge into five comprehensive areas, each of which has a special contribution to make toward the development of the individual. Anyone, to be truly educated, should have some familiarity with each of these areas. Each area is designated by three letters.

GHA—Humanities and Fine Arts—Amid all the changes in history, people in many basic ways have remained the same. Human beings today experience the same basic desires and hopes, the same fears and failures, that they did in ancient times. And it is with these human constants that Humanities and Fine Arts is most concerned. Of course, it is also concerned with the changing ways that these unchanging elements have been dealt with, with the unique ways man has expressed himself about them, but underneath is the permanency of the human experience itself. The title Humanities and Fine Arts aptly describes the concepts to be studied in this area. Students have an opportunity to enrich their insights and appreciations. It is further hoped that students will be able to develop their own sense of values. For example, in philosophy and design, one can discover fundamental connections among various areas of human experience. In literature and philosophy one confronts various problems of good and evil and may be stimulated to clarify his own values. In the study of the various arts one ought to be able to come to a better appreciation of the creativity of others and even share directly in this experience. All told, it is hoped that this kind of study contributes to what in an earlier time of history was spoken of as "wisdom."

GIS—Interdisciplinary Studies—Problems "of life" usually are not confined to a subject which is found entirely within the boundaries of any one discipline. In recognition of this fact, the General Studies Program includes the area of Interdisciplinary Studies in which are located courses whose subject matter crosses the lines of traditional disciplines. 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.

GSK—Skills—This area includes courses which offer students the opportunity to develop their skills in written expression, oral communication and reasoning-problem solving. Effective communication of ideas is basic to an organized society. Transmission of information from one individual to another enables the second person to benefit from the experiences and insights of the first. All of us can benefit from the development of greater ability to think critically and to analyze the situations and problems which constantly confront us.

GSM—Natural Sciences and Mathematics—includes the subjects generally called “science.” The General Studies science courses aim to provide the student 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. The student who approaches the study of science with an appropriate attitude should find that discovery is a delightful intellectual experience.

GSS—Social Science—It is the aim of the courses in this area to help the students develop an awareness of their role in society, an ability to think intelligently about their environment, and an alertness to the complexities of the modern world. The courses in Social Science should assist the students in understanding the way people are shaped by the social processes. Study in the area should make students aware that their attempt to define these processes may increase their ability to determine their own destinies. It is easy to see the importance of the great technological advances of the industrial revolution. But, it should not be overlooked that all scientific and mechanical innovations must attain their significance in a setting of human interrelationships and responsibilities.

GENERAL STUDIES REQUIREMENTS

The specific requirements, which must be met by all students except those in the Dean’s College, are listed and explained in this section. These general requirements must be qualified in many cases by the variations and exceptions explained in the section following this one.

The General Studies requirements are classified into the five areas previously discussed. These areas, with the requirements in each, are:

<i>GHA Humanities and Fine Arts</i>	16
The student selects any courses listed in the GHA Area to total 16 hours.	
<i>GIS Interdisciplinary Studies</i>	4
The student selects any one course (or two courses if each provides 2 hours credit) listed in the GIS Area.	
<i>GSK Skills</i>	16
The student is required to take 8 hours of written communication (courses which meet this requirement are numbered from 101 through 119)	8

The student must take 4 hours of oral communication (courses which meet this requirement are numbered from 120 through 139)	4
The student must take 4 hours of reasoning or problem solving (courses which meet this requirement are numbered from 150 through 169)	4
<i>GSM Natural Science and Mathematics</i>	16
The student selects any courses listed in the GSM Area to total 16 hours.	
<i>GSS Social Science</i>	16
The student selects any courses listed in the GSS Area to total 16 hours.	
	<hr/>
	68
	-8*
	<hr/>
<i>General Studies Requirements</i>	60

*The student is automatically excused from 8 hours in the one Area among GHA, GSM, and GSS closest to his major. However, 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 on a later page.

GENERAL STUDIES REQUIREMENTS FOR THE TRANSFER STUDENT

A transfer student who has received an associate degree, in a baccalaureate-oriented program, (Associate in Arts or Associate in Science degree), from an accredited two-year institution may enter the University with junior class standing and be considered to have met the requirements of the General Studies Program. (See Chapter 1 for admission policies and procedures.)

Other students who transfer from an accredited university, college, or junior college have their work evaluated for purposes of meeting the general degree requirements, including General Studies.

FLEXIBILITY, VARIATIONS, AND EXCEPTIONS

The total requirements of General Studies may be partially satisfied, reduced, or modified by several considerations which are discussed in this section.

THE WAIVER

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 waivers have been approved:

Area GHA — American studies, art, English, foreign language, language arts, mass communications, music, philosophy, speech communications, speech pathology and audiology, theater.

Area GSM — Biology, chemistry, engineering, environmental systems technology, general science and mathematics, health education, mathematics, nursing, physical education, physical science, physics, recreation.

Area GSS — Administrative services, American studies (GHA or GSS), anthropology, business administration, business education, earth science,

economics, geography, government, history, human services, psychology, social studies, social work, sociology.

ADVANCED STANDING

It is possible for a student to gain advanced standing (that is, to by-pass 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, 23 or above on ACT English.

GSM Area

- 101—4 Introduction to Physical Science
One year of high school physics, 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, 28 or above on ACT natural science.
- 111—4 Earth and Its Geologic Environment
One year of earth science in high school, 28 or above on ACT natural science.
- 120—4 Contemporary Chemistry
One semester of high school chemistry, 13 or above on ACT mathematics, and 28 or above on ACT natural science.
- 130—4 Contemporary Biology
One year of high school biology, 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, 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, 24 or higher on ACT mathematics.

GSS Area

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

- 130—4 Sociology
A course in sociology in high school, 27 or above on ACT social science.
- 150—4 Economics
A course in economics in high school, 27 or above on ACT social science.
- 200—4, U.S. History and Constitution
201—4, One year of U.S. History in high school with a grade of B, 27
202—4 or above on ACT social science.
220—4 U.S. Constitution
A course in American government or civics in high school, 27 or above on ACT social science.
- 240—4 Geography for Modern Man
A course in geography in high school, 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, 26 or above on ACT social science and 28 or above on ACT natural science.

SUBSTITUTIONS

Students are permitted to substitute certain courses in other areas for the regular General Studies courses. They cannot count either General Studies courses or non-General Studies courses taught by the faculty of their own major toward meeting the General Studies requirement in their General Studies area of waiver. The following courses have been approved as substitutes:

For General Studies courses: Chemistry 110—4 for GSM 120—4; Chemistry 125—5 for GSM 120—4; Biology 200—4 for GSM 130—4; Biology 302a—5 or 302c—5 for GSM 230—4; Biology 303c—4 for GSM 131—4; Mathematics 125—5 for GSM 244—4; Mathematics 410a—5 for GSM 244—4; Physics 206a—5 for GSM 101—4; Physics 211a—4 for GSM 101—4.

In addition, Economics 201—4 — Microeconomics — was approved as a substitute for GSS 150—4 — Economics — (for engineering majors only).

THE OFFICE OF ACADEMIC ADVISEMENT

The Office of Academic Advisement maintains an advisement office, in Room 1310 of the Rendleman Building, for the assistance of students. Each student who has not declared a major is required to be advised for each term of attendance by an academic adviser. Appointments for such advisement should be made well in advance of the registration period for the quarter which the student plans to attend. If group orientation and advisement are being provided, new students need not make individual appointments for advisement.

If a student has made a tentative selection of educational goals, the adviser can assist the student in selecting courses in the area of special interest. The adviser may refer a student to other sources for assistance, such as major and minor advisers, if more detailed information about

specific programs is needed. Questions related to the specific applications of the General Studies requirements should be clarified with an Academic adviser while the student is in the General Studies Division.

The Office of Academic Advisement does the initial processing for major declarations, change of major, and declarations and changes of minor.

STUDY SKILLS

A 1-hour elective course in Study Skills (GSK 100a) is offered which is designed to assist the student in developing more effective study habits. Specific attention is given to motivation for study, budgeting of time, effective listening, taking concise but adequate notes, active reading, critical thinking, and preparation for examinations.

DEVELOPMENTAL READING

A 1-hour elective course in Developmental Reading (GSK 100b) is offered each quarter. This course is designed to assist both students with nonorganic reading deficits and those who simply want to improve their reading rate and efficiency.

VOCATIONAL AND EDUCATIONAL INFORMATION AND COUNSELING

As an outgrowth of needs of General Studies students and other advisees for career information and guidance, certain materials are maintained including reading files for careers, college and proprietary school catalogs, and curriculum guides for most of the undergraduate concentrations offered at this University. Also, counselors and advisers routinely work with students in the area of educational and career counseling, and frequently refer students to Departments, concentration advisers, and area counseling services for additional assistance.

GUIDANCE SERVICES FOR MATURE STUDENTS

Counseling and educational planning are offered to mature students and prospective students. The Office of Academic Advisement also participates in Catalyst, a nationwide network which provides career information and resume services for college women.

PROBATIONARY STUDENTS

The Office of Academic Advisement advises those students who are on probation and have not yet officially declared a major. Advisement for probationary students with officially declared majors is the responsibility of the students' own academic units.

A student on probation may not take more than 14 hours without special permission. If a probationary student is employed full-time, 8 hours is the normal maximum.

It is especially important that students on probation understand the rules relating to scholastic standing.

DECLARATION OF MAJOR

Students ordinarily are classified in the General Studies Program until they officially declare a major, which they are required to do at any time prior to their senior year. The student initiates the declaration of major in person in the Office of Academic Advisement, and after a student has officially declared a major, is classified into the academic unit which grants the degree sought by the student.

A student who wishes to change his or her major, or to declare or change a minor, should return to the Office of Academic Advisement to initiate a new declaration.

COURSES

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 THE DRAMATIC MEDIA: THEATER, CINEMA, AND TV. 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 and films. 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. An introduction to the evidences of the changes in English across time from the pre-English period to 449 A.D., from earlier English 449 to 1500 A.D. (pre-printing), and modern English 1500 A.D. to today (printing), illustrating through readings the changes in words, meaning, and linguistic patterns which are inherited from the past.

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, discussing, 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 1900 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 individual and social morality.

330—4 TWENTIETH-CENTURY MUSIC: THE CLASSICAL TRADITION. Major composers and musical works of the fine art tradition in the twentieth century, seen in relationship to other important cultural events of the time. Prerequisite: 136 or 230.

338—4 JAZZ. Jazz forms and styles: development, illustrations, performances.

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.

INTERDISCIPLINARY STUDIES (GIS)

101—4 COMPUTERS AND SOCIETY. Develops rudimentary computer literacy and addresses potentials of this technology for society at large and for student as individual. Self-sufficient for those who find no further interest or need in this direction for careers they plan. Underlying philosophy is that the greatest asset of a democracy is an informed electorate.

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.

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 organizational 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.

300—4 SOCIOCULTURAL PROBLEMS OF TECHNOLOGY. Social and cultural perspectives on technology. The sources of technological development, and various human problems related to the development and use of technology. Included in the concept of technology are the usual mechanical inventions plus techniques of social cultural engineering.

302—4 DYNAMICS OF SPORTS. Study of scientific principles applicable to sports such as laws of translational and rotational motions and aerodynamics. Practical applications include baseball, golf, tennis, basketball, soccer, football and gymnastics.

320—4 SCIENCE AND SCIENCE FICTION. A critical examination of concepts of science and stylistic techniques in science fiction.

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.

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.

SKILLS (GSK)

100a—1 STUDY SKILLS. Designed to assist student in developing more effective study habits.

100b—1 DEVELOPMENTAL READING. Designed to assist student with nonorganic reading difficulties and also those who simply want to improve their reading rate and efficiency.

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.

NATURAL SCIENCE AND MATHEMATICS (GSM)

101—4 INTRODUCTION OF PHYSICAL SCIENCE. A nonmathematical 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.

131—2 LIFE: ECOLOGY AND DIVERSITY. A study of living organisms and the environmental factors and evolutionary mechanisms influencing their diversity and distribution.

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.

223—4 NUTRITION. The nature, function, and metabolism of nutrients and of their effects on health.

230—4 MAN AND HIS DISEASES. A study of the various types of diseases that can afflict man, 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 various organ systems, endocrine disorders, the immune response, and the mode of action of antibiotics and antimicrobial agents. Prerequisite: 130.

231—2 HUMAN HEREDITY AND SOCIETY. Principles of human heredity as applied to individuals, kindreds, and populations. Genetic aspects of contemporary biological social problems. 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.

234—4 ECOLOGICAL ASPECTS OF POLLUTION. A study of pollution from the viewpoint of an ecologist with emphasis on the general concept that man and nature must live in balance.

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.

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: two years high school algebra or equivalent.

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.

283—4 THE NATURE AND IMPACT OF PHYSICAL SCIENCE. An investigation into the nature of physical science and its importance for individuals and society.

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, optical 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.

320—4 ORIGINS OF LIFE. A study of the scientific findings and traditional concepts related to the origin of life. Prerequisite: completion of any GSM course or equivalent.

340—4 MATHEMATICS AND CIVILIZATION. Designed for the non-mathematics major. A study of the sources of elementary mathematical concepts and their relationships to the cultures in which they developed. Prerequisites: one year high school algebra, at least one history course other than U.S. history.

365—4 HUMAN ORIGINS. A consideration of the fossil record and basic principles of human evolution.

SOCIAL SCIENCE (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.

136—4 SOCIOCULTURAL FACTORS IN CONTEMPORARY BLACK AMERICAN LIFE. An examination of the sociocultural context of contemporary black American life, including those factors which have led to black social protest.

150—4 ECONOMICS. A historical development of economic ideas and an introduction to economic concepts, institutions, and problems.

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. Development of man as a biological and social being; origins and development of culture from earliest times to the formation of great world traditions; comparative diversity in economy, social organization, language, ecology, political behavior, religion, and the arts; relationship between culture and personality; developing societies and the industrial world.

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.

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.

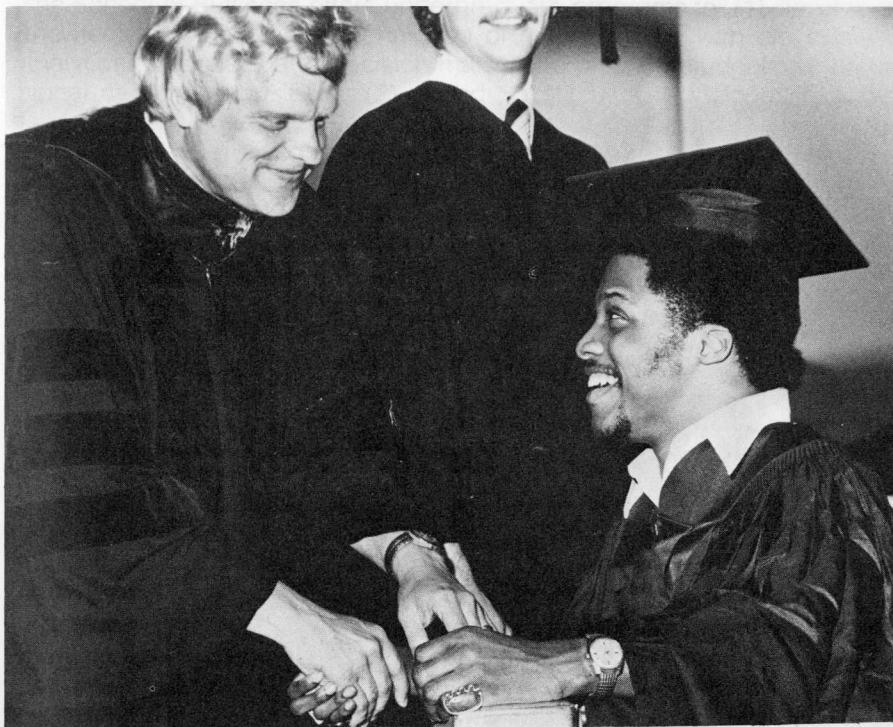
351—4 ECONOMIC HISTORY OF THE UNITED STATES. European and colonial backgrounds of American economic history; industrialization and economic growth, 1790-1865; great transition from an agricultural to a predominantly industrial economy, 1865-1920; the dynamic 1920s, the Great Depression and the New Deal; challenges of a mixed economy, 1939-1973.

352—4 CAPITALISM, COMMUNISM, AND OTHER ECONOMIC SYSTEMS. Comparison of capitalism to other methods of organizing economic activity to produce and distribute goods and services with emphasis on the economic systems of the United States, USSR, China, and Western Europe. Among the other economic systems for discussion are communism, socialism, and fascism.

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.

DEGREE PROGRAMS



School of Business
School of Education
School of Fine Arts and Communications
School of Humanities
School of Nursing
School of Science and Technology
School of Social Sciences
Other Academic Programs

CHAPTER 4

SCHOOL OF BUSINESS



DAVID J. WERNER, *Dean*

Offering degrees in:
Business Administration
Business Education
Business Economics

SCHOOL OF BUSINESS

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, junior colleges, vocational-technical schools, and similar institutions.

Three degree programs are offered at the undergraduate level to achieve the above objectives. The three programs are the 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 Professional Experience Program (PEP) and the Management Problem Laboratory (MPL) provide enriching modes of study and experience for business students. The PEP and MPL are described later.

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

ADMISSION AND TRANSFERS

The Bachelor of Science degree in Business Administration is an upper division program. Students are admitted into the School of Business after admission to the University and completing the following requirements:

1. Completion of GSM 144, College Algebra, and GSM 244, Statistics, (or their equivalent) with a C or better in both courses.
2. Cumulative grade-point average of 3.0.
3. Completion of GSK requirements.

Presidential Honors students and other exceptional students may be accepted before fulfilling all of the above requirements. Any student may request an exception to the above by writing to the BSBA Scholastic Review Committee.

TRANSFERS

Students who have earned an associate degree in business are admitted to the program in accord with the Illinois Schools of Business articulation statement regarding transfer of community college work. 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 may contact the School of Business Advisement and Counseling 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.

BUSINESS ADMINISTRATION

Bachelor of Science Degree in Business Administration Program

To obtain a Bachelor of Science degree in Business Administration (BSBA) a student must complete the following:

<i>General Studies Requirements (See Chapter 3.)</i>	60
<i>Program Core Requirements</i>	76
<i>Specialization Requirements (in any one of 11 possible specializations)</i>	16 or 28 ¹
<i>Business Electives</i>	4
<i>Non-Business Electives</i>	12
<i>Electives</i>	24 or 12 ¹
	<hr/> 192

¹Professional accounting specialization students have a 28-hour specialization requirement and a 12-hour elective requirement.

PROGRAM CORE REQUIREMENTS

All BSBA students take the BSBA Core listed below.

School of Business Core Requirements

Accounting 230, 232, and either 233 or 341²

Economics 200, 201, 300

Finance 320

Management 340, 341, 390, 440, 441

Management Information Systems 200, 381

Management Science 311 and either 312, 314 or 320

Marketing 370, 371

Production 315

²Those students specializing in accounting should take 341.

CORE CURRICULUM

The purpose of the core curriculum is to provide the student with a basic understanding of the major functions and processes of business and administration. The core curriculum encompasses the common body of knowledge in business as defined by the American Assembly of Collegiate Schools of Business (AACSB) including 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.

SPECIALIZATION REQUIREMENTS

Each BSBA student must complete one of the following specializations.

PROFESSIONAL ACCOUNTING

Accounting 335, 351, 352, 432 or 453, 441, 456
Management 342

GENERAL ACCOUNTING

Accounting 351, 352, 441, 453

ADMINISTRATIVE SERVICES

Administrative Services 426, 427, 428
Management Information Systems 400

ECONOMICS

Economics 440, 441 and two electives in economics

FINANCE

Finance 420, 423, 424, 425

GENERAL BUSINESS ADMINISTRATION

(To be worked out on an individual basis)

MANAGEMENT INFORMATION SYSTEMS

Management Information Systems 400, 401, 480
Administrative Services 426

MANPOWER AND INDUSTRIAL RELATIONS

Economics 410, 411
Management 430, 434

MARKETING

Marketing 377, 480, and three of 470, 471, 472, 474, 475, 476, 477

ORGANIZATIONAL BEHAVIOR AND DEVELOPMENT

Management 430, 431, 432, 433

PRODUCTION AND OPERATIONS MANAGEMENT

Production 410, 461, 462, 463

AREAS OF SPECIALIZATION

The School of Business provides specializations in a variety of business fields. In addition, those students who have other interests related to business may arrange approved sequences of courses in such fields as

mathematics, government, sociology, etc., as part of the general business administration specialization. Students are advised to select a specialization in view of their career objectives and are encouraged to discuss the various specializations with the academic advisers and faculty in the School of Business before making a choice.

ACCOUNTING

The profession of accounting is practiced generally in three distinct yet related career patterns in our society. One, as an independent public accountant; two, as an internal, private business accountant; and three, as a government accountant at the federal, state and local levels.

Three professional career examinations are administered within the profession, namely, the Certified Public Accountant, Certified Management Accountant, and Certified Internal Auditor examinations. Respectively, they are administered by the American Institute of Certified Public Accountants (AICPA); the National Association of Accountants (NAA); and the Institute of Internal Auditors (IIA).

Each of these examinations has a common purpose of measuring the educational achievement at the entrance level to chosen careers. The accounting programs are responsive to the requirements of these examinations and for entering the profession.

An education for a professional career in accounting is not to be equated with accounting courses alone. In fact, accounting perceptions rely significantly on courses in the functions of business, economics, organization and information theories, and management concepts. This realization accounts for the balanced treatment reflected in the accounting program.

ADMINISTRATIVE SERVICES

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

Students who complete the administrative services specialization will have career opportunities in such areas as 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.

ECONOMICS

The specialization in economics in the BSBA Program provides the student 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 functioning of the economic system, which are fundamental to forecasting, planning, and budgeting. Graduates of the program are basically qualified for careers in administration and management of business firms (including production,

transportation, marketing, and finance), in banking and insurance, and in federal, state, and local government agencies.

FINANCE

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

The flow of funds from saver to users is studied in courses on financial markets and institutions. Decision rules involving sources and utilization of funds within business, government agencies, and other institutions are concerned with the development of tools of analysis and determination of policies for managing investment portfolios of individuals and of groups such as pension funds and investment trusts. Studies of specific financial institutions such as commercial banks, insurance, and real estate are offered in seminars.

GENERAL BUSINESS ADMINISTRATION

The specialization in general business administration provides the student 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 BSBA 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.

MANAGEMENT INFORMATION SYSTEMS

The management information systems (MIS) specialization is designed to produce personnel competent in operating and designing information systems and information centers in both public and private 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 management systems program is designed for students preparing to take this examination.

A student who completes this specialization is prepared for an entry level position as a systems or information analyst or as an assistant to a computer center manager or systems manager. Positions of this type are found in service, governmental, and business organizations.

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 equips students to enter the field of industrial relations, which includes personnel administration and labor relations. Popular graduate study options include industrial relations, business, economics, law and psychology.

The specialization addresses areas such as manpower planning, personnel, collective bargaining, industrial relations law and practice, training and development, and compensation programs. Also included within the area of study are contemporary issues such as discrimination, pensions, safety and equal employment.

Upon completion of the degree requirements, the graduate is prepared for entry level positions in industrial relations, personnel, employment, selection, safety, compensation, or training. Also available is the position of management trainee.

MARKETING

The marketing curriculum is designed to enable the student to approach analytically the problem of providing consumer and industrial goods and services to a wide variety of markets by equipping him with modern problem-solving tools. The curriculum prepares the student 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 the student for a career in commercial, governmental, and service organizations that serve the public in ways other than producing tangible goods.

The integrated sequence of courses gives students broad training in the field of marketing. There is a common body of knowledge basic to understanding of the discipline. Beyond that the student may choose from among a group of elective courses to attain greater depth and sophistication in the field of interest.

ORGANIZATIONAL BEHAVIOR AND DEVELOPMENT

This specialization is designed to serve the needs of individuals who have an interest in one or more of the following careers: supervision and management, management development and employee training, organizational systems design and change specialists, and other staff positions requiring effective interaction with human resources in organizations.

Course content in this specialization is designed to enhance the individual's understanding of theories, models, concepts, and tools pertaining to human behavioral patterns within organizations. Special attention is given to organizational design considerations, leadership style and consequences, effective management of conflict resolution processes, and processes which result in effective organizational change.

Through personal involvement in various experiential exercises, courses are designed to provide the student with opportunities to develop skills in effective management of human resources.

PRODUCTION AND OPERATIONS MANAGEMENT

The planning and control of operations, inventory, purchasing, costs, and quality are concerns of all organizations including those involved in trans-

portation 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 interface of these areas and the necessity of integrating the corresponding subsystems is 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. The graduate is equipped to serve as an assistant to a plant manager, hospital administrator, transportation manager, or any manager whose duties involve scheduling, quality control, cost control, or inventory management.

EXECUTIVE SECRETARY AREA OF STUDY

Those students interested in pursuing the executive secretary area of study should take the administrative services specialization and Business Education 202, 221b, 221c, 324a, and 327 as electives.

The executive secretary area of study provides a background in office management and procedures, principles of data processing, informational analysis, and the systems and procedures that are used in business offices. Upon completion of the degree requirements, the graduate is prepared to enter a position as executive secretary, administrative assistant, supervisor, or office manager.

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, organizational behavior and development, and production.

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

PROFESSIONAL EXPERIENCE PROGRAM

The School offers the Professional Experience Program (PEP) to those students who are interested in combining academic and work experiences. After achieving sophomore standing, the PEP student alternates six months of academic work with six months of work in industry. Although five years are needed to complete this program, the PEP student derives valuable experience and financial support from his efforts. Interested students should contact the PEP Office in the School of Business.

MANAGEMENT PROBLEM LABORATORY

The Management Problem Laboratory (MPL) is an inter-disciplinary program for the development of managerial problem-solving skills. Students investigate current problems of organizations through interaction with an extensive data base and view the problems from the perspectives of several courses in which they are simultaneously enrolled.

This program received the 1975 Western Electric Award from the American Assembly of Collegiate Schools of Business as the most innovative undergraduate program.

BUSINESS EDUCATION

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

Bachelor of Science Degree, School of Education

General Studies Requirements (See Chapter 3.) 60

(This area should include one mathematics and one statistics course, a government course, and a psychology course.)

Health and Physical Education (Required for teaching certification) 6

Business Teacher Education Core 64

Administrative Services 426

Accounting 230, 232

Business Education 327, 350, 402¹

Economics 200, 201

Finance 320

Management 340, 342, 390, 441

Management Information Systems 200

Management Science 311

Marketing 371

Electives in business or business education (8 hours)

Subject Matter Specializations (Choose One) 12

ACCOUNTING-DATA PROCESSING

Accounting 233 (Or other accounting elective)

Business Education 408

Management Information Systems 400

SECRETARIAL ADMINISTRATION

Administrative Services 427

Business Education 324a, 404

MARKETING AND DISTRIBUTIVE EDUCATION

Marketing 472 or 474

Business Education 414, 416

¹May be substituted in exceptional cases by the Program Director.

ECONOMICS
Management 440
Economics 440 or 441, 481

Free Electives 13

Professional Development Sequence (Choose either A or B) 37-41

 A. Secondary Education 215, 401a,b,c, Business
 Education/Secondary Education 405

 B. Secondary Education 215, 315
 Counselor Education 305
 Foundations of Education 355
 Secondary Education 352c (12-16 hours)
 Business Education/Secondary Education 405
 Elective (0-4 hours)¹

¹Secondary Education 351 is recommended for those interested in additional teaching methodology.

ECONOMICS

Candidates for the Bachelor of Science degree in Business Economics from the School of Business must complete 84 hours in the economics concentration and a minor concentration in business, mathematics, or another social science. This degree is recommended for those students who are interested in the study of economics and either plan to seek employment upon graduation or plan 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 recommended to enroll in the economics degree program offered through the School of Social Sciences. (See Social Sciences section of the catalog.) Students seeking admission to the program must have met the general admission criteria of the School of Business. The student should contact the Department of Economics for consultation with an undergraduate adviser to plan a specific program of study.

Bachelor of Science Degree, School of Business

General Studies Requirements (See Chapter 3.) 60

Requirements for Major in Economics 84

 GSS 351 (4)

 GSM 144, 244 (9)

 Accounting 230, 233 8

 Economics 200, 201, 300, 440, 441, 468 24

 Economics Electives 20

 Finance 320 4

 Management 340, 390, 440, 441 16

 Management Information Systems 200 4

 Marketing 371 4

 Production 315 4

Minor 28

 The minor must be approved by the student's adviser.

Electives 20

Minor in Economics

A minor in economics shall consist of 28 hours and must include Economics 200, 201, 440 and 441. The remaining 12 hours shall consist of electives in economics chosen in consultation with an adviser from the Department of Economics.

Bachelor of Science/Arts Degree, School of Social Sciences

See School of Social Sciences section of this chapter.

COURSES

ACCOUNTING

230—4 INTRODUCTION TO FINANCIAL ACCOUNTING. A basic study of the financial aspects of asset resources including their nature, valuation, sources and uses in operations; transaction analyses within the accounting information processing system and cycle; income and financial position measurements and reporting; and financial statement analyses and fund flows. Prerequisite: sophomore standing.

232—4 FUNDAMENTAL ACCOUNTING PRINCIPLES AND STANDARDS. Study of professional accounting principles and standards, mainly in the financial area but incorporating certain managerial concepts as well. The principles and standards in the financial area include those related to the balance sheet presentation of assets; liabilities and owner's equity, revenue and expense measurements and matching; financial statement interpretation as an information source; resource and fund flows. Prerequisite: 230.

233—4 INTRODUCTION TO MANAGERIAL COST 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 accounting programs. Accounting majors take 341. Prerequisite: 232.

301—1 to 6 ACCOUNTING READINGS.

335—4 PRINCIPLES OF INCOME TAXATION. Study of the Federal Income Tax laws as they affect individuals, partnerships, corporations, estates, and trusts, in determination of the taxable income for computing the tax liability due. Prerequisite: 232.

341—4 MANAGEMENT ACCOUNTING CONCEPTS AND PROBLEMS I. A study of accounting cost information in the management planning and controlling process, including cost structure and behavior; cost-volume-profit analyses; standard costs with performance reporting; company-wide and responsibility center performance measurements; relevant cost information in decision making; contribution concepts; variable costing; transfer pricing; optimizing capacity resources; budgeting within the accounting process. Prerequisite: 232.

351—4 INTERMEDIATE FINANCIAL ACCOUNTING THEORY AND PROBLEMS I. In depth study of financial accounting principles and standards, including those relating to asset and equity valuations and revenue and expense measurements and matching; financial statements presentation and interpretation as an information source; fund and cash flows; and the accounting information system and cycle. Prerequisite: 232.

352—4 INTERMEDIATE FINANCIAL ACCOUNTING THEORY AND PROBLEMS II. Continuation of 351. Prerequisite: 351.

432—4 ACCOUNTING PROBLEMS IN FEDERAL TAXATION. Income tax problems of partnerships, corporations, estates, and trusts; brief study of social security, federal estate, and gift taxes; solving of complicated tax problems by research in source materials. Prerequisites: 335, consent of instructor and department chairperson.

441—4 MANAGEMENT ACCOUNTING CONCEPTS AND PROBLEMS II. A study of accounting cost information in the management planning and controlling process, including cost structure and behavior; cost-volume-profit analyses; standard costs with performance reporting; company-wide and responsibility center performance measurements; relevant cost infor-

mation in decision making; contribution concepts; variable costing; transfer pricing; optimizing capacity resources; budgeting within the accounting process; cost and product mix with yield variances; productive assets acquisitions. Prerequisite: 341.

453—4 ADVANCED ACCOUNTING. Advanced study of accounting principles and procedures relating to specialized topics, including partnership equity, installment and consignment sales, insurance, compound interest, and preparation and use of consolidated statements. Prerequisite: 352.

456—4 AUDITING. Objectives, standards, and procedures involved in examining and reporting on financial statements of business organizations. Prerequisites: 341, 352.

458—4 ACCOUNTING SYSTEMS. Problems in accounting systems design and installation. Examination of existing systems and practice in system design and reports. Prerequisites: 341, 352.

461—4 ADVANCED C.P.A. PROBLEMS. Problems from the American Institute of Certified Public Accountants' examinations given in recent years and supplementary problems from selected sources. Prerequisites: 341, 352.

490—1 to 8 INDEPENDENT STUDY IN ACCOUNTING. 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 chairman.

ADMINISTRATIVE SERVICES

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.

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.

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 if 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 224 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: 221c 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 200, 201.

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 230, 232, 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

200—4 MACROECONOMICS. An introduction to national economic systems with attention to the meaning and measurement of national income, and the causes of fluctuations therein. National economic objectives and policies, including the distribution of income, the level of employment factors affecting stability and growth, the role of taxation. Prerequisite: sophomore standing.

201—4 MICROECONOMICS. Principles and characteristics of the market economy. Theory of the business firm, supply, demand, and prices. Analysis of earnings of productive resources, including wages, rent, interest, and profit. Introduction to market structure and public policy. Prerequisite: sophomore standing.

300—4 THE MONETARY SYSTEM AND ECONOMIC POLICY. Study of relationships between money, credit, prices, and economic activity. How the banking system creates money; the Federal Reserve System. Introduction to public finance and fiscal policy; the role of public finance in full employment policy. Introduction to international financial relationships. Prerequisite: 200.

309—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 economies. Policies to alter income distribution and employment patterns, with emphasis on the performance of present public assistance programs. Recommended for social work students. Prerequisite: 200, or 201 or consent of instructor.

310—4 LABOR PROBLEMS. Survey of labor force, wage and employment theory, unemployment including economic insecurity, trade unionism, and collective bargaining from the standpoint of public policy. Prerequisites: 200, 201.

330—4 PUBLIC FINANCE I: 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 fiscal policy. Prerequisites: 200, 201.

341—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, two years of college mathematics, junior standing.

410—4 GOVERNMENT AND LABOR. A study of labor relations and legislation considering both constitutional and economic aspects. Prerequisite: 310.

411—4 COLLECTIVE BARGAINING AND DISPUTE SETTLEMENT. An analysis of the collective bargaining process as determined and changed by labor legislation. Collective bargaining contracts, their scope and significance, together with the methods of dispute settlement such as grievance procedures and arbitration. Prerequisite: 410 or consent of instructor.

416—4 ADVANCED MONEY AND BANKING. Role of money and credit in U.S. economy; the commercial banking market structure and commercial banking operations; non-banking 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: 300.

418—4 ECONOMIC HISTORY OF EUROPE. A survey of the economic growth of Europe with emphasis on the development of European agriculture, industry, finance, and international trade since 1750. Prerequisite: 201.

422—4 INTRODUCTION TO ECONOMIC DEVELOPMENT. The preconditions, processes, and problems involved in economic development. The theory and policy relevant to development, with emphasis on the "developing" or "emerging" economies. Prerequisites: 200, 201.

429—4 INTERNATIONAL ECONOMICS. An introduction to the causes and effects of international trade, the reasons for and the impact of tariffs and common markets. The balance of payments and its impact upon income and employment. Gold, the international role of the dollar, and the international monetary system. Prerequisites: 200, 201.

430—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. Prerequisites: 200, 201.

431—4 PUBLIC FINANCE II. 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. Prerequisite: 330 or consent of instructor.

433—4 AN INTRODUCTION TO URBAN ECONOMICS. The economic causes of urban growth and the economic-social problems which rapid unregulated growth creates. The growth of cities including a study of location theory, the effects of agglomeration, the structure of the economic base, and regional income accounting. A solution to the problems of cities including a designation of goals to eliminate the misuse of resources and an examination of possible techniques to attain these goals. Prerequisites: 200, 201.

440—4 INTERMEDIATE MICRO THEORY. An intensive treatment of price and income theory with emphasis on degrees of price and other competition. Prerequisite: 201.

441—4 INTERMEDIATE MACRO THEORY. Basic analytical concepts of the modern theory of aggregate income. Prerequisite: 200, 201 or consent of instructor.

450—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: 200, 201.

455—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: 440 or consent of instructor.

465—4 MATHEMATICAL ECONOMICS I. A systematic survey of mathematical economic theory. Conditions of static equilibrium (including stability conditions), dynamic models using difference equations, and linear production models of input-output analysis and activity analysis (linear programming). Prerequisite: 440 or consent of instructor.

467—4 ECONOMETRICS I. Introduction to resource allocation under uncertainty. Probabilistic economic models, theory of games and economic choices, and stochastic economic processes. Prerequisite: consent of instructor.

468—4 ECONOMIC FORECASTING AND ANALYSIS OF ECONOMIC FLUCTUATIONS. Study of the methodology used to forecast or predict general macroeconomic conditions and market conditions for individual products, sectors, or regions. Trend analysis, barometric indicators, survey techniques, input-output analysis as well as more sophisticated econometric techniques are used to analyze historical or cross-sectional data in order to forecast future economic conditions. Prerequisite: one year of college statistics, intermediate microeconomic and macroeconomic theory, or completion of MBA courses in economics and quantitative methods.

481—3 COMPARATIVE ECONOMIC SYSTEMS. Capitalism, socialism, fascism, and other forms of the economy. Prerequisites: 200, 201.

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 232, Economics 200, 201.

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.

423—4 COMMERCIAL BANKING OPERATIONS. The administration and operation of a commercial bank, including organization structure and asset management. Major problems are analyzed through the study of cases. Prerequisite: 320.

424—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.

425—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.

430—4 SMALL BUSINESS FINANCE. An introductory course combining both a description of the structure of small business financing and an analysis of functional finance from the viewpoint of small business management. Prerequisite: 320.

490—1 to 8 INDEPENDENT STUDY IN FINANCE. An investigation of topical areas in greater depth than regular 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 chairman.

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.

340—4 MANAGEMENT: ORGANIZATIONAL THEORY PRACTICE AND POLICY. 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: 340, 390.

342—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.

390—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.

430—4 PERSONNEL ADMINISTRATION. Designed to provide basic exposure to areas of personnel management. The field of industrial relations includes personnel management and labor relations. Labor relations deals with those activities impacting on employees as members of a collective bargaining unit as they interface with management. Personnel management deals with those activities related to individuals and their employers. Directed primarily to the latter validation methods available in personnel. Prerequisite: 340, 341 or consent of instructor.

431—4 LEADERSHIP IN FORMAL ORGANIZATIONS. Designed to develop understanding of the context and function of the leadership role in formal organizations through the examination of leadership research and theories of leadership effectiveness. The various bases for exercising influence and the situational factors affecting leadership. Emphasis on understanding the leadership function as well as developing thinking and action capabilities for improving leadership effectiveness. Prerequisite: 340, 341 or consent of instructor.

432—4 MANAGEMENT OF CONFLICT AND CHANGE. The study of the function of managing organizational change processes at the individual, group, and total organization levels of analysis. Understanding the sources, nature, uses, and resolution of differences and conflict at the interpersonal and intergroup levels of analysis is a major problem area for study within the context of organizational change. Emphasis on student development of skills pertinent to planning and implementing organizational change strategies. Prerequisite: 340, 341 or consent of instructor.

433—4 STUDIES IN ORGANIZATIONAL STRUCTURE 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. Prerequisite: 340, 341, 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 siding 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 200, 201, 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—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 230, and senior standing or consent of instructor.

490—1 to 8 INDEPENDENT STUDY IN 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.

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.

382—4 MANAGEMENT SYSTEMS SIMULATION. Explores modeling, experimentation, statistical inference and use of computer supported modeling tools for simulation. This exploration is undertaken with one eye to practical applications found in a wide range of working environments. Typically a language such as GPSS is used as the vehicle to experience course topics for discrete event type systems. Prerequisite: Management Science 311 or equivalent.

400—4 COBOL INFORMATION SYSTEMS. An introduction to computer programming using ANSI COBOL. A problem oriented course which introduces the fundamental programming concepts of input/output operations, mathematical computations, heading, totals, table lookup, and the sort verb. Prerequisite: 200.

401—4 COBOL INFORMATION STORAGE AND RETRIEVAL SYSTEMS. A second level COBOL programming course covering data storage and updating using sequential format on magnetic tape and random access devices, including indexed sequential processing and common COBOL subroutines. Prerequisite: 400.

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.

MANAGEMENT SCIENCE

311—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: 311.

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, probability models, regression analysis. Methods for evaluating forecast techniques. Analysis of trend and seasonal factors. The use of index numbers. Prerequisite: 311.

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. Prerequisites: GSM 144.

402—2 to 8 SEMINAR IN MANAGEMENT SCIENCE. Seminar discussions 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 8 credit hours by permission. 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 his 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 311.

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: 370.

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.

477—4 ANALYSIS OF MEDIA AND ADVERTISING EFFECTIVENESS. Acquiring familiarity with the various types of advertising media, the audiences that these media reach and the costs of media. Understanding the media buying process is emphasized as well as the prevailing trends in agency purchased commissioned billing and the media buying services. The development of knowledge concerning the rationale for proof of advertising effectiveness. The measurement techniques for each medium and the history and validity of various measurement methodologies. Prerequisite: 471.

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 311 or equivalent.

461—4 METHODS DESIGN AND WORK MEASUREMENT. (See Engineering 471.) Prerequisite: Management Science 311 or equivalent.

462—4 PRODUCTION PLANNING AND CONTROL. (See Engineering 472.) Prerequisites: 315 or 522; Management Science 311 or 502; and Management Science 320 or consent of instructor.

463—4 ADVANCED PRODUCTION MANAGEMENT. (See Engineering 473.) Prerequisite: preregistration or concurrent registration in 462.

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. Prerequisite: consent of instructor and department chairperson.

SCHOOL OF BUSINESS FACULTY

John Abraham, M.B.A., Instructor of Finance

Donald Aucamp, Sc.D., Associate Professor of Management Science

Carolyn Ault, M.A., Instructor of Management Science

David Ault, Ph.D., Chairman, Economics Program Director, and Professor of Economics

Robert Barringer, Ph.D., Associate Professor of Management Science

Haluk Bekiroglu, Ph.D., Associate Professor of Management Science

James Benjamin, Ph.D., MS in MS Program Director and Associate Professor of Management Science

Ray Bernardi, Ph.D., Associate Professor of Business Education

Walter Blackledge, Ph.D., Professor of Management

Dale Blount, M.S., Associate Professor of Management

Daniel Bosse, Ph.D., Assistant Professor of Marketing

Paul Campbell, M.B.A., Lecturer of Finance

Wilbur Campbell, Ph.D., Assistant Professor of Business Education

Morris Carr, M.S., Instructor of Management

Robert Carver, M.B.A., Chairman and Lecturer of Accounting
Reber Casstevens, M.S., Assistant Professor of Management
John Clow, Ed.D., Business Education Program Director and Professor of Business Education
Curtis Cook, D.B.A., Associate Professor of Management
Homer Cox, Ed.D., Professor of Management
Albert Cummings, M.B.A., Assistant Professor of Management Science
David Davison, B.S., Lecturer of Accounting
Catherine Diel, M.B.A., Instructor of Accounting
Louis Drake, Ph.D., Professor Emeritus of Economics
James Eaton, Ph.D., Associate Professor of Accounting
Radcliffe Edmonds, Jr., M.A., Instructor of Economics and Research Associate for CUERS
Walter Eckardt, D.Sc., Associate Professor of Finance
Donald Elliott, Ph.D., Assistant Professor of Economics
Darryl Enos, Ph.D., Associate Professor of Management
John Flanders, M.B., Lecturer of Economics
Donald Fogarty, Ph.D., BSBA Program Director and Professor of Management Science
Arnold Franke, M.S., Lecturer of Management
Ria Frijters, Ec.Dra., Professor of Management Science and Vice President for Business Affairs
Gareth Gardiner, Ph.D., Associate Professor of Management
Anoop Garg, M.B.A., Instructor of Management Science
John Glynn, Ph.D., Professor of Finance
Max Hansel, M.A., Instructor of Business Education
James Hansen, Ph.D., Assistant Professor of Management
Melvin Hanson, Ph.D., Associate Professor of Finance
Edward Harrick, Ph.D., Chairman and Associate Professor of Management
Rasool Hashimi, Ph.D., Associate Professor of Economics
Maurice Hirsch, M.S., Assistant Professor of Accounting
Robert Hoeke, Ph.D., Professor of Management Science
Jerome Hollenhorst, Ph.D., Professor of Economics
Arthur Hoover, Ph.D., MBA Program Director and Professor of Management
B. D. Hudgens, L.L.B., Assistant Professor of Management
Kumar Jain, Ph.D., Professor of Management
Polly Jones, B.S. Ed., Instructor of Business Education
Jack Kaikati, Ph.D., Assistant Professor of Marketing
Donna Kaputa, M.B.A., Instructor of Management Science
Thomas King, Ph.D., Associate Professor of Accounting
Robert Kohn, Ph.D., Professor of Economics
Gary Krauss, M.S., Instructor of Accounting
Lester Krone, D.Sc., Associate Professor of Management Science
Wayne Label, Ph.D., Associate Professor of Accounting
Raymond LaGarce, Ph.D., Chairman and Professor of Marketing
Stanford Levin, Ph.D., Associate Professor of Economics
An-Yhi Lin, Ph.D., Professor of Economics
Vaughnie Lindsay, Ed.D., Dean of Graduate School and Professor of Business Education

Don Livingston, Ph.D., Professor of Economics
Gene Lovel, M.A., Lecturer of Economics
David Luan, Ph.D., Associate Professor of Economics
David Luck, Ph.D., Professor of Marketing
Richard McKinney, Ph.D., Associate Professor of Management
John Megley, Ph.D., Professor of Management Science
John Meisel, Ph.D., Assistant Professor of Economics
Boulton Miller, Ph.D., Professor of Management Science
James Miller, M.S., Director for Center for Management Studies and Assistant Professor of Management
Richard Milles, Ph.D., Associate Professor of Accounting
David Palit, M.A.S., Lecturer of Accounting
Patricia Patsloff, Ed.D., Associate Professor of Business Education
John Phillips, Ph.D., Chairman and Associate Professor of Management Science
Arthur Prell, Ph.D., Professor of Marketing
Willie Pyke, Ed.D., Professor of Business Education
Gilbert Rutman, Ph.D., Professor of Economics
James Sagner, Ph.D., Associate Professor of Management
William Schmeltz, Ph.D., Professor of Accounting and Finance
Norbert Schmitt, M.S., Assistant Professor of Accounting
John Schrage, Ph.D., Assistant Professor of Management Science
Robert Schultheis, Ph.D., Professor of Business Education
Ann Schwier, Ph.D., Professor of Economics
Ralston Scott, Ph.D., Professor of Management
Henry Siegle, M.A., Lecturer of Marketing
Luther Statler, Ph.D., Instructor of Management
Hans Steffen, Ph.D., Professor of Management
Paul Sultan, Ph.D., Professor of Management and Economics
Paul Tarpey, Ph.D., Assistant Professor of Management Science
Linda Tinney, M.B.A., Lecturer of Accounting
Nancy Uhring, M.B.A., Lecturer of Marketing
Vern Vincent, Ph.D., Professor of Accounting
John Virgo, Ph.D., Associate Professor of Management
William Wait, Ph.D., Professor of Management
James Weir, Ph.D., Associate Professor of Management
Edward Welch, L.L.B., Assistant Professor of Management
David Werner, Ph.D., Dean of School and Professor of Management Science
William Whitmore, Ph.D., Associate Professor of Marketing
Glenn Wilson, Ph.D., Associate Professor of Management Science

SCHOOL OF EDUCATION



FRED D. CARVER, *Dean*

Offering degrees in:

Early Childhood Education

Elementary Education

Health Education

Physical Education

Psychology

Recreation

Secondary Education

Special Education

SCHOOL OF EDUCATION

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.

ADVISEMENT

Prospective students are encouraged to obtain specific information about School of Education programs as early as possible, even during their freshman and sophomore years. Undergraduate advisers are available to work with students interested in pursuing any of the programs offered by the School. Students may arrange to see advisers by requesting appointments in the office of appropriate departments in the School of Education.

Most students find it useful to know about the levels and fields where there are employment opportunities, the general characteristics of courses in education, recreation, and psychology, certification requirements, and the aptitudes associated with successful professional practice. Students should establish and maintain continuing communication with their advisers throughout their undergraduate programs from initial advisement through graduation.

Students who plan to teach must complete an approved program in order to qualify for a teaching certificate. All prospective teachers, regardless of teaching field or academic major, should consult with a departmental adviser in the School of Education to make sure that they meet the requirements of an approved program.

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.

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 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

All School of Education programs are fully accredited by the North Central Association of Colleges and Schools. The following undergraduate teacher education programs have received approval from the Illinois Office of Education, and are accredited by the National Council for the Accreditation of Teacher Education (NCATE).

Elementary Certificates

Early Childhood¹

Elementary (K-9)

Secondary Certificates (6-12)

Art	Geography	Physical Science
Biology	German	Physics
Business Education	Government	Psychology
Chemistry	History	Social Science (Inc. History)
Dramatics	Language Arts	Sociology
Earth Science ²	Mathematics	Spanish
English	Physical Education	Speech
French		
General Science— Mathematics		

Special Certificates (K-12)

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

¹Approved November, 1975

²Approved December, 1968

³Approved June, 1973

RESEARCH AND INSTRUCTIONAL FACILITIES

The School of Education maintains the following facilities which offer research and instructional resources to both the campus and the University's service area.

Early Childhood Center. The School operates an on-campus Early Childhood Center, primarily for children of students enrolled in the University. Children between the ages of three and five may be enrolled on a quarterly basis throughout the year. The program provides a variety of developmental activities in an informal setting. Students interested in early childhood education may take a practicum in this Center to meet part of the student teaching requirement.

Early Childhood Resource Center. The Early Childhood Education Resource Center is housed in Classroom Building III, Room 1312. The center 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 class time for observation and interaction with students. Seminars and colloquia are also held in the center for the early childhood community in the metropolitan area.

Psychology Laboratories. Two psychology laboratories with modern equipment provide a setting for the development of experimental programs. These laboratories and the University computer facilities provide on-campus experience in the instructional and research program. Students are encouraged to become familiar with and use these facilities, which make a direct contribution to all of the programs in the School of Education.

The Reading Center. 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.

Special Education Center. The Special Education Center provides educational and diagnostic services for children with learning and/or behavior disorders. Programs for such children are provided at the pre-school and primary levels. Students may utilize the Center for observation of and participation with the instructors in such areas as classroom management, material development, and special education teaching techniques.

Teaching Techniques Laboratory. 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.

ELEMENTARY AND EARLY CHILDHOOD EDUCATION

The Department of Elementary and Early Childhood Education offers a four year program leading to the Bachelor of Science degree in Education. By completing requirements under this degree students may qualify for the Illinois Standard Elementary Certificate, K-9, or for Early Childhood Education Certification. Although it is possible to qualify for certificates in other states, students should consult the Academic Adviser in the Office of Student Teaching and Advisement to determine what additional requirements may be necessary.

The elementary education program consists of 54 hours of professional requirements, 48 hours of non-professional requirements, and academic teaching field of 36 hours. The latter may be met by combining General Studies courses and other selected courses. Students should plan to complete their General Studies requirements during the first two years,

reserving most of the junior and senior years for professional courses in education. Elementary Education 200-2 should be taken before any other professional requirement. A student must have completed 64 quarter hours and have a grade-point average of 3.2 or higher before enrolling in 200.

The prospective elementary or early childhood education major must be admitted to the Department by satisfactorily completing 200. Psychology 301 is required and may be taken concurrently with Elementary Education 200. After admission, the student is required to participate in one full year of field experience in one of the Teacher Education Centers which are operational in local school districts. Field Experience I consists of four courses; Field Experience II consists of three courses; and Field Experience III is Student Teaching.

The elementary education program consists of the following:

<i>General Studies Requirements (See Chapter 3.)</i>	68
<i>Professional Education Requirements</i>	54
Elementary Education 200	2
Field Experience I (Elementary Education 314, 337, 365, 415)	16
Field Experience II (Elementary Education 442, 443, 445)	12
Field Experience III (Elementary Education 351-16)	16
Elementary Education 338, Instructional Technology 417	8
<i>Non-Professional Education (Additional General Education)</i>	48
Science	16
Social sciences	12
Humanities and art	6
Speech, communication or grammar skills	4
Health and physical education	10
<i>Electives and Additional Courses for Academic Teaching Field</i>	22

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The Department also offers a program in early childhood education which prepares students for professional careers in early childhood centers, nursery schools, and day care centers. Students have the option of majoring in both elementary and early childhood education or in early childhood education only. It is possible to combine a major in early childhood education with other areas of interest such as special education, psychology, etc.

Completion of an early childhood education major qualifies the student for the Illinois Early Childhood Education Certificate valid for teaching children through six years of age, exclusive of those enrolled in public school kindergarten. The major in early childhood and elementary education leads to the Illinois Standard Elementary Certificate which is valid for teaching grades K-9, in addition to the Illinois Early Childhood Education Certificate.

The early childhood education program consists of the following:

<i>General Studies Requirements (See Chapter 3.)</i>	68
<i>Professional Education Requirements</i>	50
Elementary Education 200-2, 201, 202, 317, 412, 420, 421,	

422; Special Education 414; Elementary Education 350-16

<i>Non-Professional Requirements</i>	48
Science and mathematics	16
Social sciences	12
Humanities and art	6
Speech or grammar skills (Speech Pathology and Audiology 312 or equivalent)	4
Health and physical education	10
<i>Electives and Additional Courses for Academic Teaching Field</i>	26
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HEALTH, RECREATION AND PHYSICAL EDUCATION

The Department of Health, Recreation and Physical Education offers undergraduate programs for students interested in careers in health education, recreation education or physical education. For students interested in careers as physical education teachers, there are 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

Students electing to major in health education will develop the knowledge and skills necessary to obtain jobs in both school and community settings. Completion of the program leads to the Illinois Standard Secondary Teaching Certificate which applies to the teaching of health education in grades 6-12. Graduates will also be qualified to apply for many of the hundreds of jobs within the public health field such as nutritionists, family planning counselors, and sex educators.

The ever-expanding field of health education draws its subject matter from among the social sciences, behavioral sciences, and the biological sciences. In addition to course work preparing majors to teach or work in the area of public health, emphasis is also put on the student's individual growth within each area of the health curriculum.

Interested students should see a health education adviser by contacting the Department of Health, Recreation and Physical Education. The specific degree requirements for a major in health education follow.

<i>General Studies Requirements (See Chapter 3.)</i>	66
(Including GSM 120, 130, Health Education 201, 3 hours of activity courses in physical education)	

<i>Health Education Concentration</i>	40
Biology 312a, 312b	
Health Education 205, 334s, 355, 410, 471	
Nursing 270	
Psychology 432	
Special Education 414	
<i>Health Education Electives</i>	8
<i>Professional Education</i>	32
Health Education 460	
Secondary Education 215, 352, 401a	
<i>Specialization, Minor, and/or Electives</i>	46
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RECREATION EDUCATION

A candidate for the Bachelor of Science degree in Recreation is expected to follow a program of study which provides a broad rich background in recreational skills, activities and knowledge. Program experiences and courses are in General Studies and appropriate disciplines. All students work with faculty advisers in selecting courses for this program.

Graduates are able to qualify for employment in community, military, institutional, industrial, agency, private, governmental, or commercial recreation media. The student majoring in recreation receives, upon graduation, the Bachelor of Science degree in Recreation, a non-teaching degree offered within the School of Education.

Listed below are the specific requirements for a major in recreation education.

<i>General Studies Requirements (See Chapter 3.)</i>	60
<i>Professional Courses</i>	27
Recreation 100, 200, 348, 349, 365	16
Recreation 390, 410, 420	11
<i>Professional Experiences</i>	20-22
Recreation 312 or 389 (Must be taken after sophomore year)	4-6
Recreation 400	16
<i>Interdisciplinary Requirements</i>	46
Accounting 230	4
Health Education 201, 334s	7
Music 307	4
Nursing 270	4
Physical Education 117a,b,c, 118z, 383, 402, 427	15
Psychology 303 or 304, 307	8
Theater 410a	4
<i>Electives</i>	39-37
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PHYSICAL EDUCATION

For students interested in careers as physical education teachers, there are

three program options available. A broad teaching field program is available for those who want to prepare for teaching physical education across all grade levels from kindergarten through high school. Upon completion of the program, students may qualify for the Illinois Standard Special Teaching Certificate.

The basic major in physical education is designed for prospective secondary teachers and leads to the Illinois Standard Secondary Teaching Certificate which is valid from grades 6 through 12. A modification of the basic major is available for students who expect to teach primarily at the elementary level. The requirements for each of the teaching options are presented in the sections below.

Prior to admission as a degree candidate in physical education, all students must complete a health examination, attain a grade-point average of 3.0, present evidence of work with youth groups, and complete Physical Education 304a and 304b with a minimum grade-point of 3.3.

In both the broad teaching field program and the basic major program, students may develop specialized options by combining electives and certain required courses. These options include: coaching, driver education, health education, and/or dance. Students should consult an adviser in physical education for specific information about requirements.

The program options for physical education majors are listed below. (NOTE: All activity courses are open to men and women; courses numbered 102 through 199 are for non-physical education majors and may be taken on a Pass/No Credit option. Courses numbered 300, 301, and 302 are for physical education majors.)

Broad Teaching Field

<i>General Studies Requirements (See Chapter 3)</i>	60
<i>Physical Education Theory Core</i>	62
Health Education 334s	4
Physical Education 303a,b, 304a,b, 305, 350, 383, 387, 470	32
Electives from Physical Education or Theater and Dance	26
<i>Physical Education Activity Courses</i>	16
Physical Education 300b,f,g,h,i	10
Physical Education 301a,h	4
Physical Education 302a	2
<i>Professional Education Requirements</i>	35-39
Secondary Education 215	4
Counselor Education 305	4
Foundations of Education 355	4
Physical Education 382	5
Physical Education 389	2-6
Student Teaching distributed between Elementary Education 351 and Secondary Education 352	16
<i>Electives</i>	19-15
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Secondary Level

<i>General Studies Requirements (See Chapter 3.)</i>	60
<i>Physical Education Theory Core</i>	32
Health Education 334s	4
Physical Education 303a,b, 304a,b, 350, 470	24
Electives from Physical Education	4
<i>Physical Education Activity Courses</i>	16
Physical Education 300b,f,g,h,i	10
Physical Education 301a,h	4
Physical Education 302a	2
<i>Professional Education Requirements</i>	35-39
Secondary Education 215	4
Counselor Education 305	4
Foundations of Education 355	4
Physical Education 382	5
Physical Education 389	2-6
Student Teaching (Secondary Education 352)	16
<i>Specialization, Minor, and/or Electives</i>	49-45
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Elementary Level

<i>General Studies Requirements (See Chapter 3.)</i>	60
<i>Physical Education Theory Core</i>	33
Health Education 334s	4
Physical Education 303a,b, 304a,b, 383, 384, 387, 388, 470	29
<i>Physical Education Activity Courses</i>	10
Physical Education 300b,g,h	6
Physical Education 301a	2
Physical Education 302a	2
<i>Physical Education Electives</i>	5
<i>Professional Education Requirements</i>	34-38
Elementary Education 200	4
Counselor Education 305	4
Foundations of Education 355	4
Physical Education 350	4
Physical Education 389	2-6
Student Teaching (Elementary Education 351)	16
<i>Specialization, Minor, and/or Electives</i>	50-46
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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 edu-

cation 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

The undergraduate courses in psychology introduce the student to the methods and findings of the scientific study of human behavior. The student is given an opportunity to learn what research has shown about how we perceive, learn, and think; how individuals differ from one another; how the personality develops from infancy to maturity; and how interpersonal factors affect human relations in the home, on the job, and in the community.

The psychology program is offered both as a nonprofessional bachelor's level concentration and as a preprofessional program for students who wish to pursue careers as psychologists. The undergraduate concentration is also valuable as preparation for professional careers in medicine, dentistry or law.

The undergraduate program provides a high degree of flexibility. It is designed to prepare students with practical career oriented skills and a theoretical and basic foundation for understanding of human psychological processes. Elective courses in psychology are open to all undergraduate students, regardless of major.

Psychology is at one time a scholarly discipline, a scientific field, and a professional activity. Its overall focus is on the study of both animal and human behavior and related mental and physiological processes.

1. As a *scholarly discipline*, psychology represents a major field of study in academic settings, with emphasis on the communication and explanation of principles and theories of behavior.
2. As a *science*, it is a focus of research through which investigators collect, quantify, analyze, and interpret data describing animal and human behavior, thus shedding light on the causes and dynamics of behavior patterns.
3. As a *profession*, psychology involves the practical application of knowledge, skills, and techniques for the solution or prevention of individual or social problems; the professional role also provides an opportunity for the psychologist to develop further his understanding of human behavior and thus to contribute to the science of psychology.

CAREERS IN PSYCHOLOGY

Careers involving the specific application or use of psychological knowledge or skills, and having the title "psychologist" usually require advanced, graduate degrees. However, persons with a bachelor's degree in psychology who do not wish to pursue graduate training may select from a large variety of careers in which basic knowledge of psychological processes is not only of considerable value, but highly recommended. These careers may include mental health worker, youth counselor, probation or parole officer, child care worker, drug counselor, statistician/research analyst,

prison warden, occupational therapist, mental retardation program worker, social research analyst, migrant services worker, recreation instructor, public relations specialist, suicide prevention worker, consumer protection specialist, family planning counselor, Peace Corps, Vista, or Teacher's Corps worker, insurance claims adjuster, personnel officer, lab technician, to name a few.

For students who do plan to seek graduate degrees in psychology, the career opportunities are as follows:

ACADEMIC

Psychologists who work in academic settings (colleges and universities) may be primarily teachers of psychology, or they may combine teaching with research into psychological questions, or with clinical counseling, consulting, or the provision of services to outside community agencies. Academic psychologists usually concentrate their research or study on one of the following subject areas:

1. *Experimental psychology* involves the application of experimental methods to the study of certain behavioral processes, particularly learning, perception, motivation, emotion, language and thinking.
2. *Comparative psychology* focuses on the comparison of human behavior with the behavior of other species.
3. *Physiological psychology* probes the relationship between behavior and the biological and physiological processes of the body.
4. *Social psychology* is concerned with human interaction in social settings, including such phenomena as attitude change, group dynamics, social pressures.
5. *Developmental psychology* focuses on the development of the organism from its prenatal origins through old age.
6. *Psychology of personality* involves the processes by which a person becomes a unique individual.
7. *Psychometrics* deals with the development and application of procedures for measuring psychological variables.

In addition, *clinical psychologists* and *industrial psychologists* (described below) are often employed in academic settings.

APPLIED

The following are specialty areas in which psychologists apply various combinations of subject matter to specific kinds of problems in unique settings.

1. *Clinical psychology* specializes in the assessment and therapeutic treatment of persons suffering emotional or adjustment problems.
2. *Counseling psychology* places greater emphasis on facilitating normal development and on helping people cope with important problems of everyday living.
3. *School psychology* is concerned with increasing the effectiveness of educational institutions in facilitating the intellectual, social, and emotional development of children.
4. *Industrial psychology* involves research on problems that people

encounter at work and the application of techniques for alleviating these problems.

- 5. *Engineering psychology* is concerned with the development and improvement of man-machine systems.
- 6. *Community psychology* emphasizes the contribution of environmental forces in both fostering and in alleviating human behavior problems.

Bachelor of Arts Degree, School of Education

The Bachelor of Arts degree program is designed to meet the needs and interests of students with diverse interests. A major in psychology provides excellent training for students who are interested in preparing for a professional career in human and community services, business and industry, graduate training in psychology or related disciplines, or other preprofessional degree programs. In addition, psychology is an excellent major for students who have no specific vocational plans but are interested in psychology because of its intrinsic interest.

<i>General Studies Requirements (See Chapter 3.)</i>	60
GSS 260 does not count toward major	
<i>Requirements for Major in Psychology</i>	57
Foreign Language	12
Psychology 300a,b,c	13
Should be completed within three quarters after declaration of major	
Psychology electives	32
Psychology 432 does not count toward major	
<i>Minor</i>	28
<i>Electives</i>	47
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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 60 hours of electives. All students should plan the program in consultation with the psychology adviser.

<i>General Studies Requirements (See Chapter 3.)</i>	60
GSS 260 does not count toward major	
<i>Requirements for Major in Psychology</i>	45
Psychology 300a,b,c	13
Should be completed within three quarters after declaration of major	
Psychology electives	32
Psychology 432 does not count toward major	
<i>Minor</i>	27
<i>Electives</i>	60
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Major

All students declaring a major or minor in psychology are strongly advised to take Psychology 300a as a first course in psychology. Students majoring in psychology are expected to complete the sequence of 300a, b, and c within the first three quarters after declaring their major. Psychology 300b must be successfully completed before the student may enroll in 300c. Psychology majors and minors transferring credit from other colleges or universities are advised to have any transferring psychology courses evaluated as soon as possible by the psychology undergraduate adviser.

Minor

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

TEACHER EDUCATION CERTIFICATION

Students interested in a career in secondary education can complete a major in psychology as part of the secondary education Bachelor of Science degree program. The course of study is designed for the student who intends to teach at the secondary level or pursue graduate studies in educational psychology or counselor education. Student teaching is a requirement for this degree. A student, in consultation with the secondary education adviser, should plan to have a strong second teaching field. For degree requirements, see Secondary Education.

<i>Requirements for Major in Psychology</i>	48
Psychology 300a,b,c	13
Psychology electives	35

A student should plan his psychology course requirements in consultation with the psychology adviser.

SECONDARY EDUCATION

The Secondary Education Program is a four-year professional degree program culminating in a teaching certificate for secondary schools. The program includes work in General Education, Teaching Fields, and Professional Education.

In the first two years the student completes a general program of studies in Natural Science/Mathematics, Social Science, Humanities/Fine Arts, and Skills. During this time the student also enrolls in an introductory Education course designed to develop for the student a clearer focus regarding his/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 experience may be taken in a two- or three-quarter sequence and is usually completed during the fourth year.

General requirements for admission to the Teacher Education Program includes successful completion of the introductory Education course, recommendation by the advisers in Education and the teaching field, and recommendation by the Secondary Education Undergraduate Admission and Retention Committee.

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 from kindergarten through grade twelve. The teaching certificate is recognized in the twenty-eight states which hold membership in the National Council for Accreditation of Teacher Education.

TEACHING FIELDS

In cooperation with other Schools at the University, a wide range of teaching fields is available to students majoring 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 (the number of hours required is usually 48):

Art	Geography
Biology	Government
Chemistry	Health Education
Dramatics	History
Earth Science	Mathematics
Economics	Physical Education
English	Physics
Foreign Languages:	Psychology
French, German, or Spanish	Sociology
	Speech

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

Art	History
Biological Sciences	Instructional Materials:
Chemistry	Library Science or
Economics	Audio-Visual Option
English	Mathematics
Foreign Languages:	Music
French, German, or Spanish	Physics
Geography	Psychology
Government	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
Language Arts (junior high school)	75
Music Education (K-12 certification)	78-93
Physical Education (K-12 certification)	72
Physical Science Education	75
Social Studies (junior or senior high school option)	91

The program outline for secondary education students is as follows:

<i>General Studies Requirements (See Chapter 3.)</i>	60
These must include General Psychology, United States History or American Government	
<i>Professional Education Requirements</i>	37
Secondary Education 215	
Secondary Education 401a,b,c	
<i>Teaching Field Requirements and Electives</i>	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.	
<i>Health Education</i>	3
<i>Physical Education Activity Courses</i>	3
<i>Electives</i>	14
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SPECIAL EDUCATION

The Department of Special Education offers teaching preparation programs at the undergraduate level in the areas of emotional disturbance, learning disabilities, and mental retardation. The Department also offers course work directed toward the socially maladjusted, severe/profoundly handicapped (TMH-Autism), pre-school education, high school teaching, and career/vocational education of the handicapped.

Students majoring in mental retardation, emotional disturbance, or learning disabilities have the option of choosing one of two programs which lead toward teaching certification.

Option A. The single certificate program with a major in one of the areas listed above, and ending with a Standard Special Certificate.

Option B. The dual certificate program with a major in one of the three areas listed above as well as a major in elementary education. This program requires student teaching in both elementary and special education, and results in a Standard Elementary Certificate and a Standard Special Certificate. The recommended program outlines for each of the options is shown below.

Option A — Single Certification

General Studies Requirements 78

 GHA Area Courses: GHA 110, GHA 136, two GHA literature
 courses and elective hours to total 18 for the area 18

 GIS Area: any course 4

 GSM Area Courses: GSM 130, GSM 212, one physical science
 course and two mathematics courses 20

 GSS Area Courses: GSS 260, GSS 370, two courses from GSS
 130, GSS 150, GSS 210, or GSS 240, and GSS 300a or a
 course in American government which satisfies the Illinois
 constitution requirement 20

 GSK Area Courses: GSK 101, GSK 102, GSK 123, and GSK
 152 16

Health and Physical Education 6

 Health Education 201 6

 Three 1-hour physical education activity courses 16

Professional Education Requirements 16

 Counselor Education 305 16

 Elementary Education 314, 337, 437 16

Special Education Requirements 64

 One of the following specializations: (Must be taken in se-
 quence)

 EDUCABLE MENTALLY HANDICAPPED

 Special Education 414, 410g, 411, 430, 420b 20

 Physical Education 350 4

 Psychology 432 4

 Special Education 470, 410b, 481b, 353, and one elective
 course 32

 Counselor Education 422 4

 EMOTIONALLY DISTURBED

 Special Education 414, 410g, 411, 430, 420a 20

 Physical Education 350 4

 Psychology 432 4

 Special Education 470, 496, 481g, 353, and one elective
 course 32

 Counselor Education 422 4

 LEARNING DISABLED

 Special Education 414, 410g, 411, 430, 420a 20

 Physical Education 350 4

 Psychology 432 4

 Special Education 470, 496, 481g, 353, and one elective
 course 32

 Counselor Education 422 4

Elective hours 28

Option B — Dual Certification

<i>General Studies Requirements</i>	84
GHA Area Courses: GHA 110 or GHA 136, and one GHA literature course	8
GIS Area: any course	4
GSM Area Courses: GSM 130, GSM 212, one physical science course, two mathematics courses, and three science elective courses	32
GSS Area Courses: GSS 260, 370, one GSS course in Anthropology, Geography, Economics, or Sociology, GSS 300 or a course in American government which satisfies the Illinois constitution requirement, one GSS course in Anthropology, Geography, Economics, or Sociology, and one GSS elective course or History 308	24
GSK Area Courses: GSK 101, 102, 123, 152	16
<i>Certification Requirements</i>	7
English 391a, or 391b, or Speech Pathology and Audiology 200, or Speech Communication 399	
Art 300a, or Music 200 or 300 ¹	
<i>Health and Physical Education</i>	10
Health Education 201	
Physical Education 350	
Three physical education activity courses	
<i>Professional Education Requirements</i>	40
Elementary Education 200, 365, 314, 337, 437, 415	24
Instructional Technology 417	4
Counselor Education 422 or Psychology 421	4
Student Teaching (Elementary Education 351a)	8
<i>Special Education Requirements</i>	52
One of the following specializations: (Must be taken in sequence)	
EDUCABLE MENTALLY HANDICAPPED	
Special Education 414, 410g, 410b, 411, 420b, 430, 470, 481b	32
Special Education 353	16
Psychology 432	4
EMOTIONALLY DISTURBED	
Special Education 414, 410g, 411, 420a, 430, 410a, 470, 481a	32
Special Education 353	16
Psychology 432	4
LEARNING DISABLED	
Special Education 414, 410g, 411, 420a, 430, 496, 470, 481g	32

¹Students must take one art and one music course, i.e., if a student elects GHA 110 from the General Studies courses, he/she must then take Music 200 or 300.

Special Education 353	16
Psychology 432	4
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Minor in Special Education

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.

A fully satisfactory student teaching experience necessitates 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 appropriate departmental coordinator of student teaching. Student teaching during the summer quarter is not available.

APPLICATION PROCEDURE

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 TO STUDENT TEACHING

GENERAL

The following are prerequisites that need to 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 3.2 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 need to 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.

EARLY CHILDHOOD EDUCATION

In addition to meeting the elementary education prerequisites, students majoring in early childhood education must complete a 16-hour sequence in early childhood education, including 201 and 317, prior to student teaching.

ELEMENTARY EDUCATION

Students majoring in elementary education complete a minimum of 24 quarter hours in professional education courses prior to student teaching. Students should complete Field Experiences I and II prior to student teaching.

PHYSICAL EDUCATION

Students with a broad field major will complete a minimum of 60 hours in physical education prior to student teaching. Student teaching will be split between elementary and secondary levels.

SECONDARY EDUCATION

1. Secondary education students must be admitted to the teacher education program by the Department of Secondary Education Admissions Committee before an application for student teaching can be approved.
2. Student teaching is an integral part of Secondary Education 401a,b,c, Secondary Education Teacher Training System, based at Teacher Learning Centers. Secondary Education 401c, Student Teaching, should be preceded by Secondary Education 215, 401a and 401b.
3. It is also expected that secondary education students will have completed 32 hours of their studies in their chosen teaching field except that 48 hours will be completed by students who have chosen one of the following teaching fields: art education, business education, general science and mathematics, language arts, physical education, physical science, and social studies.
4. Prospective secondary student teachers must present two recommendations, one from their education adviser and one from their teaching field adviser. Forms for this purpose will be distributed at an orientation meeting which will be held during the quarter preceding student teaching assignment.
5. Secondary Education 352, Student Teaching, may be assigned for students admitted to secondary education before June 1973 or in special cases approved by the Secondary Education Department Chairman. This assignment requires 17 hours in professional education courses prior to student teaching including Counselor Edu-

cation 305, Foundations of Education 355, and Secondary Education 315, and an elective course in the School of Education.

SPEECH PATHOLOGY AND AUDIOLOGY

Students must secure written consent of the Speech Pathology and Audiology Department and must have completed GSS 370, Counselor Education 305, and Speech Pathology and Audiology 450 before registering for student teaching.

COURSES

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.

COUNSELOR 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.

350—4 SURVEY OF HUMAN DEVELOPMENT. Surveying knowledge and understanding of human development throughout the life cycle. The various phases of life in the areas of physical, affectional, socialization, peer-group relations, and self-development.

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: 305.

426—4 INDIVIDUAL INVENTORY. Procedures for studying individual pupils and their problems for guidance purposes. Emphasis on interview, observation, ratings, case study, cumulative record, etc. Prerequisite: 422 or consent of instructor.

442—4 INTRODUCTION TO GUIDANCE. Introductory course on student personnel services. Survey of philosophy, principles, and organization of guidance services. Not to be taken for graduate credit. Prerequisite: 305 or consent of instructor.

443—4 INTRODUCTION TO COUNSELING THE DISADVANTAGED STUDENT. A study of the affective and cognitive factors in personal development and positive mental health with particular emphasis upon special problems encountered in aiding in the fullest development of disadvantaged students.

480r—2 INTRODUCTION TO REHABILITATION. (Same as Special Education 480r.) A survey of the philosophy, procedures and practices underlying the rehabilitation movement, including the history and legislation that have contributed to its rapid development. Prerequisite: Special Education 470 and/or consent of instructor.

483—4 to 8 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.

EDUCATIONAL ADMINISTRATION AND SUPERVISION

405—4 TEACHERS' ROLE IN EDUCATION MANAGEMENT. Designed to provide teachers, teacher organization officials, and teacher education students with a basic understanding of school law, school finance, and legislative processes. Emphasis on concepts and principles which provide the background necessary for proactive participation in education management by teachers.

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.

060—2 to 4 PARENTING THE YOUNG CHILD. For parents of young children who would like to develop a sensitivity toward and an awareness of their children and the child rearing process. Child development and child rearing issues are presented, shared, and discussed. Designed to help parents become more knowledgeable about the needs and development of young children and more insightful and skillful in parenting.

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 own interests, skills, and abilities as related to that role. Satisfactory performance is required for admission to the teacher education program. Prerequisite: registration by permit only.

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. Prerequisite: 365.

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: 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. Prerequisite: 314.

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. Prerequisite: 337.

350—4 to 16 EARLY CHILDHOOD STUDENT TEACHING. Prerequisites: 317, 365.

351a—4 to 16 ELEMENTARY STUDENT TEACHING. Prerequisites: 314, 337, 365.

351d—4 to 16 ELEMENTARY STUDENT TEACHING: PHYSICAL EDUCATION. Prerequisite: 365.

365—4 LEARNING THEORIES AND THE ELEMENTARY SCHOOL CHILD. Principles of learning applied to the mastery of materials used in elementary school subjects. Prerequisites: 200, Psychology 301.

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. Prerequisite: 365.

415—4 TEACHING MATHEMATICS IN THE ELEMENTARY SCHOOL. Items to be taught, the grade placement of content, newer instructional practices and materials of instruction, and means of evaluating achievement. Prerequisite: 314.

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—12 (4,4,4) FIELD STUDY: PROBLEMS IN ELEMENTARY EDUCATION. (1) Curriculum, (2) Language Arts, (3) Science, (4) Reading, (5) Social Studies, (6) Mathematics, (7) Early Childhood Education, (8) Elementary Organization and Supervision, (9) Open Education. May not be repeated for credit.

442—4 TEACHING SCIENCE IN THE ELEMENTARY SCHOOL. Study of content and methods of elementary school science. Prerequisite: 314.

443—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.

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. Prerequisite: 314.

470—4 WORKSHOP IN SEX EDUCATION FOR ELEMENTARY TEACHERS. (Same as Health Education 470.) Designed to encourage elementary school teachers to integrate sex education concepts into their teaching program. Current theories and knowledge concerning the psychosocial aspects of the maturation process are related to the content used for teaching pupils at various grade levels. Specialists in psychology, public health, and social welfare offer a multi-discipline approach to help teachers plan a program based upon characteristics and needs of pupils.

480—4 BACKGROUNDS OF URBAN EDUCATION. (Same as Secondary Education 480.) Social, economic, and demographic factors as they impinge upon programs in urban schools. Prerequisite: 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 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 for credit with permission of instructor.

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.

300—3 COMMUNICABLE DISEASE. A study of the communicable diseases with emphasis on control and principles of prevention, and application of these principles to the individual school and community.

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. Preparation for safety education in the public schools. Concerned with safety as a social problem, development of safety skills, accident causes, teacher liability, and research in the field.

334s—4 FIRST AID. Red Cross First Aid Course with lectures, demonstrations, and practical application. Red Cross Instructor's Certificate given.

350—4 METHODS AND MATERIALS IN ELEMENTARY HEALTH EDUCATION. Designed to show the prospective teacher fundamental processes, techniques, and material aids involved in elementary school health teaching.

355—4 INTRODUCTION TO PUBLIC HEALTH. Philosophy, organization, administration, and functions of federal, state, and local, official and voluntary public health agencies. Periodic field trips involved.

400—4 HEALTH APPRAISAL OF SCHOOL CHILDREN.

410—4 COMMUNITY AND ENVIRONMENTAL HEALTH. A study of community health problems concerned with the aging process, chronic and degenerative diseases, mental health, communicable diseases, human ecology and conservation of human resources. Prerequisites: 205, 355.

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.

461—4 WORKSHOP IN HEALTH EDUCATION.

470—4 WORKSHOP IN SEX EDUCATION FOR ELEMENTARY TEACHERS. (See Elementary Education 470.)

471—4 ORGANIZATION AND ADMINISTRATION OF SCHOOL HEALTH.

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: 302s.

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.

461—4 GRAPHICS FOR INSTRUCTIONAL TELEVISION. Preparation of visual materials for instructional television programs for teaching in schools. Prerequisites: 445, 460.

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 to maximum of 8 hours with no topic repeating 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 per activity) INDIVIDUAL AND TEAM ACTIVITY. (c) Basketball, (f) Soccer, (g) Speedball, (j) Softball, (n) Cross Country, (t) Touch Football, (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, (e) Intermediate Contemporary, (g) Modern Jazz Dance, (h) Intermediate Folk Dance, (i) Intermediate Social Dance.

118—(1 per activity) INDIVIDUAL AND TEAM ACTIVITY. (a) Archery, (b) Badminton, (d) Bowling, (e) Golf, (f) Billiards, (h) Tennis, (i) Volleyball, (m) Fencing, (n) Field Hockey, (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—10 (5,5) HOMOKINETICS. (a) Structural and functional basis of human performance; elements of physiology essential to physical activity. (b) Mechanics applied to physical performance; analysis of selected motor activities; application of physical principles to specific instructional problems. Must be taken in sequence. Prerequisite: course in general biology or zoology.

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—3 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: 303.

323—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.

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—5 METHODS AND ORGANIZATION OF PHYSICAL EDUCATION FOR THE SECONDARY SCHOOL. 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 physical education foundation 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 DEVELOPMENT SKILLS. Stresses basic developmental skills that should be included in physical education program 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/301b.

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—3 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.

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 graduate standing.

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.

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. Prerequisite: course in elementary statistics.

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.

475—2 to 4 INDIVIDUAL RESEARCH. The selection, investigation, and writing of a research paper under the supervision of instructor.

476—2 to 4 TEACHING ATHLETIC SKILLS. Modern techniques of teaching skills, conditioning, and strategies, for prospective physical education teachers and coaches.

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 others' 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 maintenance 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 phylogenetic 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: 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 aware-

ness and personal change. Prerequisite: 300a, or GSS 260, or GSS 130 or GSS 210 or equivalent.

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; i.e., meditation, hypnosis, and biofeedback. Class discussion supplemented by films and demonstrations. Prerequisites: 300a, GSS 260, or consent of instructor.

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 respondent 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.

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, 307, or consent of instructor.

440—4 THEORIES OF PERSONALITY. A review and critical evaluation of major personality theories and their 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 behavior, 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.

468—4 PSYCHOLOGY OF HUMAN SEXUALITY. Explores the psychological aspects of human sexuality. Topics include cross-cultural 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: 301, 303, 304 or consent of instructor.

490—1 to 8 INDEPENDENT PROJECTS. Independent readings and projects in psychology. Prerequisite: consent of instructor and chairman.

495—1 to 8 SEMINAR: SELECTED TOPICS. Varied content. To be offered from time to time as need exists and as faculty interest and time permit. Prerequisite: consent of instructor.

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 micro-teaching 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.

443—4 TEACHING OF GEOGRAPHY. (See Geography 443.)

444—4 TEACHING OF EARTH SCIENCES. (See Geography 444.)

480—4 BACKGROUNDS OF URBAN EDUCATION. (See Elementary Education 480.)

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.

487—4 TEACHING THE NATURAL SCIENCES IN SECONDARY SCHOOLS. Objectives of science education; instruction methods and techniques appropriate for teaching science; desirable equipment, audio-visual aids, and instructional materials; development of a course outline and at least one instruction unit.

488—4 TEACHING SOCIAL STUDIES IN SECONDARY SCHOOLS. Objectives, scope and sequence of curriculum, methods of teaching different courses and age groups, materials and evaluation. Prerequisite: 315.

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

353—8 to 16 SPECIAL EDUCATION STUDENT TEACHING. The practice of teaching, under the immediate supervision of a critic teacher and the general supervision of a University instructor. Involves lesson preparation and planning of instruction.

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. Prerequisites: 414, Psychology 301 or 303.

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: 414 or concurrent enrollment.

410c—4 PROBLEMS AND CHARACTERISTICS OF THE GIFTED CHILD. Designed to help teachers in the identification of, and programming for, gifted and talented children. Prerequisite: Counselor Education 305 or Psychology 301 or 303.

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 pre-school, elementary, and secondary levels. Prerequisite: 414 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: 414 or concurrent enrollment.

410t—4 PROBLEMS AND CHARACTERISTICS OF THE TRAINABLE MENTALLY HANDICAPPED. Basic concepts in the dimensions of intelligence, psychological testing, educational assessment, causation of retardation as they relate to educational and therapeutic considerations for the trainable mentally handicapped child. Prerequisite: 414.

411—4 ASSESSMENT AND REMEDIATION OF LEARNING DISABILITIES. Special tests and remedial programs designed for children with specific learning disabilities of a perceptual or coordination nature and who may demonstrate related adjustment problems. Prerequisites: 410a or 410g, 414.

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 chairman.

413b—4 DIRECTED OBSERVATION OF THE EDUCABLE MENTALLY HANDICAPPED. Student observation and participation in group and individual work with mentally retarded children. Often taken concurrently with 410b. Prerequisite: consent of department chairman.

413c—4 DIRECTED OBSERVATION OF THE GIFTED. Taken concurrently with 410c. Provides student observation and participation in individual work with gifted children. Prerequisite: consent of instructor.

414—4 THE EXCEPTIONAL CHILD. Physical, mental, emotional, and social traits of all types of exceptional children. Effects of handicaps in learning situations. Methods of differentiation and techniques for rehabilitation. Individual case studies used; observations and field trips.

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. Prerequisites: 410a, 410g, consent of instructor.

420b—4 METHODS AND MATERIALS IN THE EDUCATION OF THE EDUCABLE MENTALLY HANDICAPPED. Offered in conjunction with practice teaching. Methods and materials needed in teaching educable mentally handicapped children.

420c—4 METHODS AND MATERIALS IN THE EDUCATION OF THE GIFTED. Offered in conjunction with practice teaching. Methods and materials needed in teaching gifted children.

420t—4 METHODS AND MATERIALS IN THE EDUCATION OF THE TMH CHILD. Basic educational remediation processes needed to assist in the overall academic development of the trainable mentally handicapped child. Methods and materials, both commercial and teacher developed, are examined. Prerequisites: 410g, 410t, 414.

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. Prerequisites: 414, Psychology 420.

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—4.

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. Prerequisites: 410, 420.

480r—2 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. Prerequisite: 470 and/or consent of instructor.

481a—4 SEMINAR: TEACHING CHILDREN WITH BEHAVIOR DISORDERS. A concluding and synthesizing experience for students training to be classroom teachers of children with behavior disorders. Focuses on prescriptive teaching methods, individual and group behavior management techniques and methods and materials for instruction. Prerequisites: 410a, 410g, 411, 420a, 430, concurrent with 353 or 453.

481b—4 SEMINAR: EDUCABLE MENTALLY HANDICAPPED.

481c—4 SEMINAR: GIFTED.

481g—4 SEMINAR: THE LEARNING DISABLED. Focus on specific classroom settings, management and teaching of the learning disabled child. The role of the teacher of the learning disabled as a professional practitioner, and as a member of the educational team is stressed. Student teaching can be taken concurrently. Prerequisites: 410g, 411, 420a.

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. Prerequisites: 414, consent of staff.

498—4 SEMINAR: SELECTED TOPICS IN SPECIAL EDUCATION. Special educational concepts, teaching strategies, or current concerns to various educational personnel. Prerequisite: consent of department chairman.

SCHOOL OF EDUCATION FACULTY

William P. Ahlbrand, Ph.D., Chairman and Associate Professor of Secondary Education

Gene D. Allsup, Ph.D., Professor of Educational Administration and Supervision

Robert G. Andree, Ed.D., Professor of Educational Administration and Supervision

James F. Andris, Ph.D., Assistant Professor of Foundations of Education

Rosemarie Archangel, Ph.D., Professor of Health, Recreation, and Physical Education

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David E. Bear, Ed.D., Emeritus Professor of Elementary Education

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Eric Blackhurst, Ed.D., Assistant Professor of Special Education

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- Henry T. Boss, Ed.D., Associate Professor of Secondary Education
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Regan Carpenter, Ed.D., Professor of Elementary Education
Sara Carpenter, B.S., Lecturer of Health, Recreation, and Physical Education
Fred D. Carver, Ph.D., Dean of School and Professor of Educational Administration and Supervision
Joann Chenault, Ed.D., Professor of Counselor Education
Charles Combs, Ed.D., Professor of Counselor Education
James Comer, Ed.D., Professor of Elementary Education
Ruth Cook, Ph.D., Associate Professor of Special Education
A. Dudley Curry, Ph.D., Associate Professor of Foundations of Education
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Helen Ederle, Emerita Professor of Counselor Education
Robert O. Engbretson, Ph.D., Professor of Psychology
Thomas D. Evans, Ph.D., Associate Professor of Counselor Education
Eva Ferguson, Ph.D., Professor of Psychology
John Forhertz, Ph.D., Associate Professor of Counselor Education
Ruges Freeman, Ph.D., Associate Professor of Secondary Education
Harry Gallatin, M.A., Assistant Professor of Health, Recreation, and Physical Education
Malcolm Goldsmith, Ph.D., Assistant Professor of Health Education
George H. Goodwin, Ed.D., Associate Professor of Secondary Education
Joseph Gore, Ph.D., Associate Dean and Professor of Secondary Education
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Dorothy Happel, M.S., Lecturer in Elementary Education
Merrill Harmin, Ph.D., Professor of Secondary Education
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Robert McLaughlin, Ph.D., Associate Professor of Psychology
Frank B. McMahon, Jr., Ph.D., Professor of Psychology
Cameron Meredith, Ph.D., Professor of Counselor Education
William Mermis, Ph.D., Professor of Counselor Education
Robert Meyers, B.S., Instructor of Health, Recreation, and Physical Education
Boyd Mitchell, Ed.D., Professor of Instructional Technology
Larry N. Moehn, M.S., Assistant Professor of Health, Recreation, and Physical Education
Virginia Moore, Ed.D., Associate Professor of Counselor Education

Frederick J. C. Mundt, Ph.D., Professor of Instructional Technology
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Dartha Starr, Ph.D., Associate Professor of Elementary Education

Fay H. Starr, Ph.D., Professor of Psychology

Lawrence E. Taliana, Ph.D., Professor of Psychology

Harvey M. Taylor, M.A., Instructor of Foundations of Education

Anthony J. Traxler, Ph.D., Associate Professor of Psychology

Mark M. Tucker, Ed.D., Professor of Special Education

Charles J. Turner, Ed.D., Associate Professor of Elementary Education

David VanHorn, M.S., Instructor of Counselor Education

Robert Wagner, Ph.D., Associate Professor of Special Education

Richard Walsh, Ph.D., Professor of Psychology

Dale Wantling, Emeritus Professor of Foundations of Education

Leslie J. Wehling, Ed.D., Associate Professor of Secondary Education

Leonard Wheat, Emeritus Professor of Educational Administration and Supervision

William Whiteside, Ph.D., Associate Professor of Special Education

Jack J. Whitted, M.S., Instructor of Health, Recreation, and Physical Education

W. Deane Wiley, Ph.D., Professor of Educational Administration and Supervision

George T. Wilkins, Emeritus Professor of Educational Administration and Supervision

Robert Williams, Ph.D., Assistant Professor of Elementary Education

Rudolph G. Wilson, M.S., Assistant Professor of Secondary Education



the following descriptions.

ART AND DESIGN

The Department of Art and Design offers undergraduate degrees in the various areas of art: a Bachelor of Arts degree in Art with options in Art History or Studio; a Bachelor of Fine Arts degree in Art and Design; and a Bachelor of Science degree with an option in Art Education. The School of Education also offers a Bachelor of Science degree in Art Education.

Undergraduate offerings in art include studio courses providing for a major in art, as well as courses providing for a minor in art. Studio courses include painting, sculpture, printmaking, and photography. Art History courses include a survey of art history and a survey of world art history. The Department of Art and Design also offers a Master of Arts degree in Art and Design, and a Master of Science degree in Art Education. The Department of Art and Design also offers a variety of certificate programs, including a certificate in Art and Design, a certificate in Art Education, and a certificate in Art History.

SCHOOL OF FINE ARTS AND COMMUNICATIONS



HOLLIS L. WHITE, *Dean*

Offering degrees in:

Art and Design

Mass Communications

Music

Speech Communication

Speech Pathology and Audiology

Theater and Dance

SCHOOL OF FINE ARTS AND COMMUNICATIONS

The mission of the School of Fine Arts and Communications through its many faceted programs is to broaden and intensify experiences in the fine and communicative arts and related sciences in the geographical area served by the University; to impart to all University students an awareness of the cultural values of the arts; in visual and plastic arts, in design, music, speech communication, theater and dance, speech pathology and audiology, radio-television, journalism, and film; 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 objectives are:

1. To provide pre-professional and professional training in art and design, music, dance, theater, speech pathology and audiology, radio, television, journalism, and film.
2. To provide teacher preparation for the profession of teaching in art, music, speech communication, theater, dance, and mass communications.
3. To serve as the center of the cultural resources of the campus and off-campus communities; 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 as these activities relate to our mission.
6. To provide services to the University and off-campus communities through our service units and instructional laboratories; Broadcasting Service, Speech and Hearing Center, University Theater, Architectural Arts, bands, choruses, orchestras, quartets, and recitals.

Students may be further informed about each specific program by reading the following descriptions.

ART AND DESIGN

The Department of Art and Design offers three undergraduate degrees in the various areas of art: a Bachelor of Arts degree in Art with options in Art History or Studio; a Bachelor of Fine Arts degree in Art and Design; and a Bachelor of Science degree with an option in Studio or, in conjunction with the School of Education, Art Education.

Undergraduate offerings in art include introductory and specialized courses providing for a major in: the studio areas of drawing, painting, print-making, sculpture, ceramics, fiber and fabric, photography and jewelry; in art historical studies; or professional preparation for the future teacher of art at both the elementary and secondary levels. Limited offerings are available for those with an avocational interest.

To augment the academic program the Department of Art and Design

has a comprehensive program in the cultural arts which includes the Visiting Artists' Program, the Exhibitions Program and the Program in Architectural Exhibits. These programs provide an opportunity for the general student as well as the art major to be exposed to internationally known artists and art works that are brought to the campus in Edwardsville.

Individuals majoring in art find career opportunities in a wide variety of professional fields open to them. These include teaching programs in public and private schools; recreational and cultural programs with city, state and federal government agencies; professional careers in design, advertising and commercial art as well as positions with museums, galleries and other cultural institutions. The undergraduate programs in art also prepare students for graduate study in their field of specialization.

The Art and Design Department reserves the privilege of retaining examples of the work of each student in each class. Such works may become a part of a permanent collection and be used for exhibitions as determined by the faculty.

Bachelor of Arts Degree, School of Fine Arts and Communications

Studio

<i>General Studies Requirements (See Chapter 3. Waive GHA-8.)</i>	60
<i>Requirements for Major in Art</i>	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, 358, 384, 386, 393	18
Art history	6
15 additional hours from one of the following studio areas: painting, drawing, printmaking, sculpture, ceramics, fiber and fabric, jewelry or photography	15
Art electives	6
<i>Electives or Minor</i>	36
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Art History

<i>General Studies Requirements (See Chapter 3. Waive GHA-8.)</i>	60
<i>Requirements for Major in Art History</i>	75
Foreign Language	12
Art 225-9	9
54 hours from the following: GHA 310, 311, 312, 315, 316, 317, Art 424, 447-9, 448, 449, 469, 481, 483	54
<i>Electives and/or Minor</i>	57
(Majors are urged to elect Philosophy 360 and Anthropology 305 plus courses in nonvisual arts and history. Studio work is encouraged and additional language study advised.)	

Bachelor of Science Degree, School of Fine Arts and Communications

General Studies Requirements (See Chapter 3. 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, 358, 384, 386, 393 18

 Art history elective 3

 Art education courses 289, 300a,b,c,d, 365 19

 Art electives 12

Electives 38

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Bachelor of Fine Arts Degree, School of Fine Arts and Communications

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 3.5 on all work and a 4.0 grade-point average in studio courses to remain in the program.

General Studies Requirements 32

 GSK 12

 GSS 8

 GSM 8

 GHA 4

Foreign Language¹ 12

Requirements for Major in Art 116

 Art 100-15, 200-21, 304-1, 331-3, 441-3, 15 hours from at least five of the following: Art 305a, 310a, 302a,b,c, 358a,b,c, or d, 348a or b, 386a, 393a, 405-1 59

 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 Electives² 32

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¹Language study in high school may not be used to meet this requirement. Students planning on continuing beyond a bachelor's degree are urged to use part or all of the elective hours to improve the mastery of at least one foreign language.

²Art history courses are not to be included in these hours.

NOTE: Students desiring secondary teaching certification with this degree would be permitted to count 6 hours of education courses in the 18 hours of electives. The remaining hours of required education and art education work would be in addition to the basic 192 hour degree.

Bachelor of Science Degree, School of Education

Art Education

General Studies Requirements (See Chapter 3.) 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, 358, 384, 386, 393	18
Art history	3
Art education courses 289, 300d, 365	10
Art 300a,b,c (for K-14 certification)	(9)
<i>Professional Education Courses</i>	33
See Secondary Education requirements	
<i>Electives</i>	29

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During the last quarter of the junior year or first quarter of the senior year, any student may petition the art faculty to grant him the privilege of an exhibition of his work. Such an exhibit may be comprised of the work of an individual or may be composed of the works of several seniors. Participation in an exhibition is not required for graduation from Southern Illinois University; permission to participate is extended in recognition of outstanding industry and artistic ability.

Minor in Art or Art History

A student 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.

A student desiring a minor in art history should take the following courses: History of World Art — Art 225-9 plus 18 additional hours from 300 level art history courses or GHA courses in art history for a total of 27 hours.

MASS COMMUNICATIONS

The professional program leading to the Bachelor of Science degree in Mass Communications (Television-Radio, Journalism) rests on three general beliefs about education:

1. That the liberal education of students, primarily in the liberal arts and sciences, is fundamental to their future success in the media, and should constitute the major portion of their college experiences;
2. That students should become proficient enough in the technical and production aspects of the media and knowledgeable enough in the management, sales, and operational aspects so that they will be able to enter the field of their choice as valuable employees after graduation;
3. That the liberal education and media experience and knowledge should be integrated in such a way to insure maximum opportunity for success as potential leaders in the media.

Important as the increased proficiency in techniques may be to undergraduate students, it is essential that their horizons should be broadened beyond the confines of the college classroom and the immediate program objective. They should have the opportunity to study the basic principles of our economic system as they apply to the media, to dissect communication messages of the mass media to discover their ethical and emotional

appeals, to investigate the psychological and sociological responses of the audiences in terms of their desires and their needs, and to examine the special responsibilities of the communicator to those audiences. Their educational experience should include the development of professional standards of performance and decision making. To help with this development we offer a program of student internships in cooperation with the media in St. Louis and Metro-East.

Students may select a specialization in television-radio or in journalism. In either program a minor outside of the Department of Mass Communications is required, and students are encouraged to consider a second major field if their schedule will permit. The latter would obviate the necessity for the minor. Advisers are assigned to each major when he or she enters the department and they remain with the student as he or she completes his or her study. There is a core of course work required of each student regardless of major, but beyond this each program is designed to fit the needs of the individual and his or her career aspirations.

Core requirements in journalism are 103, 201a,b, 245 or 345, 303a,b, 340, 410, and 415. 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.

For more detailed information regarding our programs please contact Chairman, Department of Mass Communications.

CAREER OPPORTUNITIES

A degree in mass communications is specifically applicable in a number of ways: television and radio stations, newspapers, magazines, industrial and corporate publications, advertising agencies, teaching, production agencies, photography, film work, cable television, public broadcasting. But increasingly, mass communications majors are in demand for public relations and public information positions, and low-technology or closed circuit applications of television in business and industry.

Bachelor of Science Degree, School of Fine Arts and Communications

Television-Radio

General Studies Requirements (See Chapter 3.)	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 (A double major is recommended.)	29
Electives (May include a minor in journalism)	50
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Minor 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.

Journalism

<i>General Studies Requirements (See Chapter 3.)</i>	60
<i>Requirements for Major in Mass Communications</i>	54
Journalism 103, 201a,b, 210a, 245 or 345, 303a,b, 340, 410	35
Senior-level seminar in mass communications	4
Journalism, selected television-radio, and electives from other schools on campus as approved by the Department of Mass Communications	15
<i>Minor Outside Mass Communications</i>	28
(A double major is recommended.)	
<i>General Electives (or additional minor in television-radio)</i>	50
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Minor in Journalism

A minor in journalism consists of 103, 201, 210a, 320, 340, 402, and 415 for a minimum of 28 hours; or alternate courses as approved by the director of journalism.

Mass Communications in a Democratic Society

This minor is intended to be useful to those students in the University who do not wish to pursue a professional minor in the media which includes familiarization with and practice in producing messages. It is suggested that this sequence might be particularly valuable to those whose major could be complemented by an understanding of the role the media have played and are playing in the evolution of our society.

Requirements are as follows: one of the following — Television-Radio 100, 159, Journalism 101; also Television-Radio 200, 400, Television-Radio 401 or Journalism 483, Television-Radio 407, Television-Radio 450, or Journalism 415, Journalism 245, 345. A total of 31-32 hours must be taken.

MUSIC

The Department of Music is a fully accredited member of the National Association of Schools of Music. The Department offers the following undergraduate degrees: Bachelor of Arts with a major in Music; Bachelor of Music with specializations in Performance, Music Education, and Theory and Composition.

Performing organizations at SIUE include groups open to all students; the University Band, the University Chorus, and the Community Choral Society, and groups open to the students by audition: the Symphonic Band, the Concert Chorale, the University Symphony Orchestra, the Chamber Orchestra, the Jazz Lab Ensemble, and various instrumental chamber music ensembles.

A large number of concerts by ensembles and recitals by guest artists, faculty, and students offer a significant program of cultural events for the

enjoyment of the University community and residents of the area surrounding the University.

Students may participate in various organizations, including Phi Mu Alpha, national music fraternity; Mu Phi Epsilon, international music sorority; and a chapter of the Music Educators National Conference.

Outstanding students may apply for admission to the Dean's College in order to devise a program more closely related to their specific abilities. A grade-point average of 4.5 is required for admission of college applicants, but students with outstanding high school records, and others with exceptional talent, may be admitted directly from high school. When admitted to the Dean's College, the student and his or her adviser plan a program appropriate for the student's needs and capabilities.

ADMISSION

Students wishing to become candidates for the Bachelor of Music degree must perform an acceptable audition prior to the quarter they wish to enter. No student is permitted to take private lessons until the audition requirement is met. To obtain audition dates, please write or call the Department of Music.

Bachelor of Arts Degree, School of Fine Arts and Communications

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.

<i>General Studies Requirements (See Chapter 3. Waive GHA-8.)</i>	60
<i>Requirements for Major in Music</i>	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
<i>Minor Concentration</i>	24
<i>Electives</i>	39
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Bachelor of Music Degree, School of Fine Arts and Communications

Music Performance

<i>General Studies Requirements (See Chapter 3. Waive GHA-8.)</i>	60
<i>Requirements for Major in Music</i>	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

¹Students with a specialization in voice should include two years of foreign language (generally one year each of French and German). The student should consult with the music adviser as to the sequence to be followed.
²Students with a specialization in piano may substitute 9 hours in Music 413 and/or 461 in lieu of 309a, 312a, and 442a.
³Students with specialization in piano may substitute a maximum of 6 hours in 365 as partial fulfillment of this requirement.

<i>Electives</i>	14-9
	<hr/> 192-195

Music Education

<i>General Studies Requirements (See Chapter 3. Waive GHA-8.)</i>	60
<i>Requirements for Major in Music</i>	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 ¹
Voice proficiency or class	0-3 ¹
Music: class strings, woodwinds, brass — 2 hours in each area	0-6 ¹
One year of French or German is recommended for the student with a choral emphasis in music education.	
<i>Professional Education Requirements</i>	33
GSS 370	4
Foundations of Education 355	4
Music 301	9
Counselor Education 305	4
Elementary Education 351, Secondary Education 352d	12
<i>Electives</i> ²	22-8
	<hr/> 192-197

¹Study on a secondary instrument and/or voice is possible if requirements for class instruction are met by proficiency.

²Students desiring certification in Missouri should take Special Education 414.

Before a student is approved for student teaching, he must satisfy the course of study and proficiency prerequisites as established by the Music Department.

Music Theory/Composition

<i>General Studies Requirements (See Chapter 3. Waive GHA-8.)</i>	60
<i>Requirements for Major in Music</i>	117
Music 105-12, 205-12, 309-9, 312-9, 326-9, 357-9, 442-9	69
Music, private applied	18 ³
Music, major ensemble	12
Music electives	18 ⁴
<i>Electives</i>	15
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³Private applied piano unit proficiency is satisfied; thereafter any instrument or voice. Students are expected to enroll for applied study for a total of nine quarters.

⁴A 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 in Music

A minor in music includes 105-12, 2 hours of credit per quarter for three quarters in performance concentration, 6 hours in a major ensemble, GHA 230, Music 357c (357a or b will substitute). Total: 31 hours.

SPEECH COMMUNICATION

The field of speech communication probes the "hows" and "whys" of people relating to people in the sharing of ideas and feelings. It focuses on human communication on a one-to-one basis, in small groups, in recurring relationships (such as families and friendships), and in formal speaking situations. The study of speech communication is organized into the following four basic divisions: (1) Basic Speech Communication Theory and Practice, (2) Speech Communication as a Social Force, (3) Speech Communication as a Study of Human Behavior, and (4) Speech Communication in Education.

CAREER OPPORTUNITIES AVAILABLE

There are very few jobs in American society with the label "For _____ People Only" attached, and speech communication is no exception. But with ever-increasing breakdowns in government, business and industry, higher education, churches, families and individual lives, people are becoming increasingly aware of the need for effective communication throughout our society. As a result, there are growing job opportunities for people trained in speech communication. Exciting new jobs are opening up, and for this reason, our graduates have significant input in regard to what their jobs will be like, rather than having to fit into traditional, tightly defined job descriptions. Representative examples include the following: (1) teaching careers in speech communication (K-12), (2) communication specialists in business and industry, (3) trainers and facilitators in human relations and development programs, (4) management positions, (5) public relations, (6) sales, and (7) government and politics.

ADVISEMENT

Advisement for speech communication majors and minors is initially handled by the Speech Communication Director of Undergraduate Studies and Advisement. Students are encouraged to select a permanent adviser, who will assist them in planning and coordinating their respective courses of study, as soon as possible.

Speech communication majors can plan programs which prepare them for working in a variety of careers. They must complete 48 hours in speech communication courses. There are four required courses for majors: 301, 302a, or 302b, 330, and 410. Majors must also take 32 hours of electives in speech communication courses, 12 hours in cognate fields (other than

student's minor, to be chosen at discretion of student and adviser), and 48 hours of electives in any University courses. They must also take a minor of at least 24 hours. Majors seeking certification for teaching must take the program outlined above in this paragraph, plus 461, and meet the other minimum standards for certification under Secondary Education and those set forth by the Illinois Office 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, Speech Communication 309, offers 1 to 8 hours of academic credit for these activities.

Bachelor of Arts or Bachelor of Science Degree,¹ School of Fine Arts and Communications

<i>General Studies Requirements (See Chapter 3. Waive GHA-8.)</i>	60
<i>Requirements for Major in Speech Communication</i>	48
Foreign Language	(12)
Speech Communication 301, 330, 410, either 302a or b	16
Electives in Speech Communication	32
<i>Minor</i>	24
<i>Courses in Cognate Fields</i> (other than student's minor, to be chosen at discretion of student and adviser)	12
<i>Electives</i>	48

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¹Twelve hours of foreign language are required for the B.A. option.

Bachelor of Science Degree, 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 Speech Communication 461, and meet current certification requirements set forth by the Illinois Office of Education.

Minor in Speech Communication

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 the student and his/her adviser decide best fit the student's 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 461. At the time they declare their minor or earlier, students are to consult with the Speech Communication Director of Undergraduate Studies and Advisement. General Studies courses are not applicable to the 24 hours necessary for a minor.

SPEECH PATHOLOGY AND AUDIOLOGY

The professions of speech pathology and audiology are devoted to serving the more than twenty million Americans with disordered communication. The speech and language pathologist is devoted to the study of human communication, its normal development, and its disorders. Included in such

responsibilities may be the identification, evaluation, and remediation of individuals having communicative disorders; in addition, the speech and language pathologist is interested in preventing disorders of speech, hearing, and language through public education, early identification of problems, and research into the causes and treatment of these problems.

The audiologist is concerned with normal and defective hearing. This individual's responsibilities include the prevention of hearing loss and the identification and rehabilitation of those who have impaired hearing. The audiologist utilizes tests and instruments to determine whether a hearing loss is present and then works in a variety of ways to assist the person to make the best use of residual hearing, which may involve amplification. Like the speech and language pathologist, the audiologist is also concerned with research on the hearing process and hearing disorders.

In order to meet the standards established by the American Speech and Hearing Association and the State of Illinois, the student wishing to pursue a career in either speech pathology or audiology must complete a master's degree. A secondary concentration in speech pathology and audiology is not offered on the undergraduate level. Specific requirements and options must be approved by the department.

CAREER OPPORTUNITIES

Hospitals	Public Schools
Community Clinics	Private Practice
Colleges and Universities	Industries
State and Federal Agencies	Rehabilitation Centers

Bachelor of Arts or Bachelor of Science Degree,¹ School of Fine Arts and Communications

<i>General Studies Requirements (See Chapter 3. Waive GHA-8.)</i> ²	60
<i>Requirements in Speech Pathology and Audiology</i>	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, 453	16
Audiology courses: Speech Pathology and Audiology 360, 461, 471	12
Clinical procedures and practices: Speech Pathology and Audiology 380, 449, 469	6-12
Optional courses: Speech Pathology and Audiology 401, 450, 462, or approved elective	4
<i>Requirements in Related Areas</i>	12
Psychology 301, 305	8
Special Education 414	4
<i>Requirements for Illinois Certificate in Speech and Language Impaired</i>	25-33
GSS 370	4
Counselor Education 305	4

¹Twelve hours of foreign language are required for the B.A. option.

²Must include basic psychology.

Elementary Education 351	8-16
Foundations of Education 355	4
Health and Physical Education	5
<i>Approved Electives</i>	41-27
Students are encouraged to pursue a minor in a related field.	

THEATER AND DANCE

A major in theater and dance provides instruction and training in all phases of dramatic production for the stage.

Training in theater and dance at the undergraduate level provides for the inter-related presence of three fundamental considerations: a liberal arts orientation; a liberal theater education; and a meaningful, purposeful study of the art of theater and/or dance.

Students who major in theater or dance may elect any four possible programs of study: (1) theater major (performance emphasis), (2) theater major (design and technical emphasis), (3) theater major (dance emphasis), (4) theater education. The carefully devised complex of training studios enables the student to learn the art of theater and dance through instruction and participation in an extensive series of major and minor presentations for class, campus, and community audiences through the Quonset Theater, the University Theater, and the Dance Company. Each student's background and training is appraised to determine one's needs. Individual programs provide training and practice in voice training, acting, makeup, directing, technical production (including stagecraft, costuming, lighting, sound, scene design, scene painting, costume design, lighting design), business management, and dance. Additional courses in the theater curriculum allow the student to secure a background of knowledge in theater history, creative dramatics, and dance history.

Students desiring further information about work in the Department of Theater and Dance should contact: The Chairperson, Department of Theater and Dance, Box 72c, Southern Illinois University, Edwardsville, Illinois 62026.

All students desiring to take courses in theater and dance must be advised by a member of the faculty who will issue permit to enroll forms. Advisement by departmental faculty should be completed prior to University registration.

Bachelor of Arts or Bachelor of Science Degree,¹ School of Fine Arts and Communications

Performance Emphasis

<i>General Studies Requirements (See Chapter 3. Waive GHA-8.)</i>	60
<i>Requirements for Major in Theater (performance emphasis)</i>	90

One of the following concentrations:

ACTING

Theater 100a-4, 100d-4, 100s-4, 100u-4, 100v-4, 200a-12,

¹Students pursuing the Bachelor of Arts degree must complete 12 hours of foreign language.

200b-2, 200c or 300c-4, 200l-4, 200m-2, 200s-4, 300a or 300p-8, 300b-2, 300r-4, 400a or 400p-8, 401-12	84
Theater Electives	6
DIRECTING	
Theater 100a-4, 100d-4, 100s-4, 100u-4, 100v-4, 200a-12, 200b-2, 200c or 300c-4, 200l-4, 200m-2, 200s-4, 300b-2, 300r-12, 400r-8, 401-12	84
Theater Electives	6
Electives	42
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Design and Technical Emphasis

General Studies Requirements (See Chapter 3. Waive GHA-8.)	60
Requirements for Major in Theater (design and technical emphasis)	90
GHA	(4)
Theater 100a-4, 100d-4, 100s-4, 100u-4, 200b-2, 200c-4, 200d-4, 200k-2, 200l-4, 200m-4, 200s-4, 200w-6, 300c-4, 300d-4, 300l-4, 300r-4, 302-4, 400c,d, or l-4, 400q-4, 400w-4, 401-12	
Electives	42
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Dance Emphasis

General Studies Requirements (See Chapter 3. Waive GHA-8.)	60
Requirements for Major in Theater (dance emphasis)	90
GHA 150	(4)
Theater 100h-4, 100u-4, 200h-4, 200n-4, 200t-8, 300h-4, 300o-4, 300t-12, 300z-2, 302-4, 400h-12, 400o-4, 400t-10, 400u-4, 400z-2, 402-4, 403-4	
Electives	42
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Minor in Theater

A 40-hour minor in theater must be planned in consultation, prior to advisement, with the Chairman of Theater and Dance.

Theater Education

General Studies Requirements (See Chapter 3. Waive GHA-8.)	60
Requirements for Major in Theater	48
Theater 100a-4, 100s-4, 100v-4, 200b-2, 200l-4, 200m-4, 224- 4, 300b-2, 300r-4, 400r-4, 401c-4, 409-4, 410a-4	
Professional Education Requirements	37
Electives	47
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Students must complete a 30-hour minor in a certifiable teaching area, preferably speech communication or English.

COURSES

ART

Fees are assessed to all studio courses. These fees are noted at the end of each course description. Fees can be paid at the Art Office at Wagner Building 194 at the beginning of the quarter. After that time they will be billed to 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, 365, 408, 460, 466.

Art History Courses: 225, 424, 447, 448, 449, 469, 481, 485; GHA 310, 311, 312, 315, 316, 317.

Studio Courses: 100, 202, 302, 305, 310, 312, 325, 331, 341, 358, 384, 386, 393, 401, 402, 410, 418, 420, 430, 441, 484.

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.

202—24 (3,3,3,3,3,3,3) INTERMEDIATE STUDIO. (a) Sculpture. A study in form and design. (b) Printmaking. Introduction to fundamental printmaking techniques in relief and intaglio methods and multiple color printing. (c) Ceramics. Introduction to handbuilding with clay and to simple techniques and technology of glazing and firing. (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 — \$13; b — \$15 + \$5 (ink fee); c — \$7 + \$18 (clay fee); d — \$3; e, f — \$6; g — \$3; h — \$7.

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. (c) Art from the Renaissance to the present.

289—3 PRACTICUM IN ART EDUCATION. An exploration of appropriate activities for art education in the elementary and secondary schools. Observation and involvement with children and youth at work. An introduction to the profession of art education. Prerequisite: 100—15.

300—12 (3,3,3,3,3) 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. (a) Exploration and experimentation of a variety of media with emphasis on interdisciplinary learning. (b) Study of crafts suitable to the interests and abilities of children in grades K-6. (c) Providing opportunity to pursue an individual interest in-depth, studio or academic. (d) For art concentrations only to introduce them to the elementary school child and his creative processes. A,b,c must be taken in sequence. Prerequisite: (a,b,c) junior standing; (d) 289. Fee: a,b,c — \$3.

302—12 (3,3,3,3) BASIC STILL PHOTOGRAPHY. Basic still, black and white photography as an art form; photography aesthetics; work with view cameras and hand held cameras; total dark room experience. Prerequisite: junior standing and/or consent of instructor. Fee: a,b,c,d — \$10 + \$5 (breakage fee).

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 applications, exhibiting, galleries, studio development and general problems confronting those who pursue college or university teaching careers. Prerequisite: upperclassman pursuing BFA degree or consent of instructor.

305—12 (3,3,3,3) CERAMICS. Intensive study of ceramics as an art form. Must be taken in a,b,c sequence. Prerequisite: 202—9, including 202c. Fee: a,b,c,d — \$9 + \$18 (clay fee).

310—12 (3,3,3,3) PAINTING. Intensive study of painting as a medium of expression. Individual rather than group problems are engaged. Prerequisite: 202—9, including 202d. Fee: c,d — \$3.

312a—4 ADVERTISING AND GRAPHIC DESIGN. Deals with 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. Prerequisite: 202—9, including 202f. Fee: \$6.

312b—4 ADVERTISING AND GRAPHIC DESIGN II. Introduction to the problems of the advertising designer, with special emphasis on typography. Includes typesetting, proof printing, engraving, and lithographic processes. Application of the principles of design to a variety of contemporary projects, with professional standards and performances exacted. Creative and technical class work is supplemented by field trips to printing firms and advertising design studios. Intern experiences are encouraged. Prerequisite: 312a. Fee: \$6.

325—3 to 12 STUDIO. No more than 6 hours per quarter. Prerequisites: 9 hours in medium of choice (except where courses do not exist), consent of instructor. Fee: assigned for area of work.

331—12 (3,3,3,3) ADVANCED DRAWING. Exploration of various drawing techniques and media while intensively studying the human figure in environments. Prerequisite: 9 hours of drawing or consent of instructor.

341—9 (3,3,3) INTRODUCTION TO CARTOONING AND ILLUSTRATION. An introduction to various aspects of cartooning and commercial illustration. (a) Photomechanical reproduction processes, lettering techniques, preparation of copyready material for line-cut processes. Emphasis upon cartooning. (b) Continuation of work begun in 341a with some attention to production of the graphic story (i.e., "comic strip"). (c) Exploration of story and advertising illustrations using various media suitable for reproduction in halftone and in full color processes. Must be taken in sequence. Prerequisites: 100—15, 202b, d, e 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: b,c,d — \$15 + \$5 (ink fee).

365—4 ART EDUCATION IN THE SECONDARY SCHOOLS. For art education students preparing to teach at secondary level; includes studio projects designed to develop awareness of technical and aesthetic needs of high school students, reading and discussion of literature, planning of curriculum. Fall quarter only.

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 or consent of instructor.

384—12 (3,3,3,3) WEAVING AND DESIGN IN TEXTILES. Beginning and advanced problems in frame and floor loom weaving, off-loom fiber techniques, batik, printing, and quilting. Prerequisite: 202—9. Fee: a,c — \$7; b — \$5.

386—12 (3,3,3,3) JEWELRY AND DESIGN IN METALS. The basic processes involved in forming and finishing art objects of metal. Prerequisite: 202—9.

- 393—12 (3,3,3,3) SCULPTURE.** Problems in modeling, carving, casting, and construction. Prerequisite: 202—9, including 202a. Fee: a,b,c,d — \$13.
- 401—3 to 12 RESEARCH IN PAINTING.** Prerequisite: 310—12. Fee: \$3.
- 402—3 to 12 RESEARCH IN SCULPTURE.** Prerequisite: 393—12. Fee: \$23.
- 405—1 SEMINAR II.** Continuation of Seminar I with particular emphasis on continuing changes in the professional art world. Course activities are coordinated with the visiting artists' program. Prerequisite: 305.
- 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 of 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,d) 300a, student teaching, consent of instructor.
- 410—3 to 12 RESEARCH IN PRINTS.** Prerequisite: 358—12. Fee: \$15 + \$5 (ink fee).
- 417—3 to 6 MULTI MEDIA II.** Independent work in multi-media. May be repeated for total of 12 hours credit. Prerequisite: 377—6 or consent of instructor.
- 418—3 METALSMITHING AND DESIGN.** Forming of metal via hammer, stakes and anvils. The art of raising or shaping sheet metal into forms by use of hammers, anvils and other tools in an ancient art employing traditional smithing techniques. Prerequisite: 386—9 or 393 or consent of instructor.
- 420—3 to 12 RESEARCH IN POTTERY.** Prerequisite: 305—12. Fee: \$15 + \$18 (clay fee).
- 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 with 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 12 STUDIES IN ART.** Advanced work in area of specialization or multi-media work under the joint supervision of the respective areas. May be repeated to maximum of 12 hours in ceramics, fibre structures and textiles, multi-media, painting, printmaking or sculpture. Prerequisite: 300- and 400-level courses. Fee: see instructor.
- 441—3 to 12 STUDIO IN DRAWING.** Prerequisite: 12 hours 300-level art, junior or senior standing. Fee: \$3.
- 447—9 (3,3,3) ANCIENT ART.** An interpretation of painting, sculpture, and architecture from prehistoric times through the ancient Egyptian, Mesopotamian, Greek and Roman civilizations, presented with consideration of the general cultural settings of the peoples involved. 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.

460—12 (3,3,3,3) 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, journals, 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. (d) Writing of the Selected Research Problem. Analyzing data, organizing related readings and developing the research study in final form. Prerequisite: (a) graduate standing or consent of instructor; (b) 460a; (c) 460b; (d) 460c.

466—12 (3,3,3,3) STUDIO IN ART EDUCATION. A studio course for art and elementary education majors as well as public school teachers. Explores concepts, techniques and processes and their application for use in the classroom. (a) Drawing and Painting for the Teacher. Work in the areas of drawing, watercolor, acrylic and oil paintings. Emphasis on the development of style and technique in these specialized areas. (b) Weaving for the Teacher. Work in the areas of on and off loom as well as wrapping, stitchery, and other related traditional techniques. (c) Ceramics for the Teacher. Work in the area of ceramics with emphasis on hand and wheel thrown techniques. Additional processes and approaches in the construction of ceramic ware. (d) Sculpture for the Teacher. Work with additive and subtractive methods of creating sculpture. Emphasis on the use of materials techniques and processes used in creating three dimensional and relief forms. Prerequisites: admittance to Teacher Education Program, 300a and/or 365, student teaching.

469—12 (3,3,3,3) 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. (b) Oceanic Art. A study of the arts of the peoples of Melanesia, Polynesia, and Micronesia. An assessment of their influences on 20th century European art. (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-Columbia Indian Art of the Americas. A summation of the decline of Mexican, Central, and South American cultures after European contact; the major focus on the cultures and stylistic regions of North America. Prerequisite: 225—9 and/or consent of instructor.

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-. 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 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.

498—3 to 12 INTERNSHIP IN ARTS. Special and pertinent involvement in a work, study or research activity designed and supervised by selected faculty members and the cooperating institution or organization. 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.

JOURNALISM

101—4 JOURNALISM AND THE DAY'S NEWS. 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—8 (4,4) NEWS WRITING AND EDITING. Advanced experience in reporting and writing the news for newspapers and magazines; preparation of copy for publication in local media. (a) Campus and neighboring communities; (b) city and county government, police and courts, using home towns as beats. Prerequisite: 103.

210—8 (4,4) 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, some color. Laboratory hours required. Prerequisites: 103, consent of instructor.

212—4 EDITING OF PHOTOGRAPHS AND ARTWORK. Assignment of illustration for 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.

245—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.

303—8 (4,4) NEWS EDITING AND DESIGN. (a) Advanced copy editing, headlining and makeup for newspapers, 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—12 (4,4,4) COLOR PHOTOGRAPHY IN MASS COMMUNICATIONS. (a) How to see and use color. Shooting color positives. Printing from positive and negative film. (b) Applying same techniques, with black and white, for documentary projects, for persuasive communication, for illustration. (c) Creative darkroom procedures, with color and black-and-white. 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 PUBLIC AFFAIRS REPORTING. Affairs of city, county, and state government stressing research skills required to conduct public opinion polls, to interpret empirical data and to use scientific tools as aids for investigative and interpretative reporting. Practical assignments also with stories of socio-economic nature, such as urban renewal, poverty program, local politics. Precision reportage. Prerequisite: 201b or Television-Radio 302.

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. Legal limitations and privileges affecting publishing, fair comment, criticism, contempt of court, right of privacy, copyright, and legal provisions affecting advertising.

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.

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.

385—4 THE WEEKLY NEWSPAPER. A study of the weekly newspaper as an editorial product and as a business. Aspects of news, opinion, advertising, production, distribution, and management. Round-table discussion with guest experts and practical experience in publishing the weekly newspaper. Prerequisite: 201.

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—4 to 16 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. May be repeated to maximum of 16 hours credit. Prerequisites: journalism 400-level reporting, advertising or photography coursework; consent of director of journalism.

462—2 to 4 HIGH SCHOOL PUBLICATIONS. Designed for prospective teachers of journalism and mass communications and advisers to publications, as well as for in-service teachers. The role of the school newspaper, editorial leadership and responsibility, reporting and writing school news, production techniques, the journalism or mass communications curriculum, experience producing a publication; preparing course outlines.

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 8 hours credit. Prerequisites: 210, consent of instructor.

MUSIC

021—1 SYMPHONIC BAND. May be repeated. Prerequisite: by audition.

022—1 UNIVERSITY BAND. May be repeated.

023—1 JAZZ LAB ENSEMBLE. May be repeated.

024—1 WIND ENSEMBLE. May be repeated. Prerequisites: by audition, concurrent enrollment in 021 or 022.

031—1 UNIVERSITY ORCHESTRA. May be repeated. Prerequisite: by audition.

041—1 COMMUNITY CHORAL SOCIETY. May be repeated.

042—1 UNIVERSITY CHORUS. May be repeated.

043—1 CONCERT CHORALE. May be repeated. Prerequisite: by audition.

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.

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. Must be taken in sequence.

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. Must be taken in sequence.

114—1 CLASS APPLIED PERCUSSION. Practical training in basic principles of playing the 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. 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 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.

- 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
- v. Primitive Rhythms in Percussion

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.

240—2 or 4 PRIVATE APPLIED MUSIC. (See 140.)

300—3 MUSIC EDUCATION — ELEMENTARY. (For non-music concentration only.) Teaching music in the elementary grades. Prerequisite: 200 or equivalent.

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.

307—4 RECREATIONAL MUSIC. For those interested in the less formal approach to music and for prospective leaders for recreational activities.

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.

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.

340—2 or 4 PRIVATE APPLIED MUSIC. (See 140.)

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.

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.

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.

413—9 (3,3,3) PIANO LITERATURE. A survey of the entire spectrum of repertory for piano; methods of teaching the techniques of such literature. Taught in sequence. Prerequisite: 340k.

420—1 MUSIC EDUCATION PRACTICUM. A shop-laboratory course dealing with the selection, adjustments, maintenance, and repair of musical instruments.

440—2 or 4 PRIVATE APPLIED MUSIC. (See 140.)

442—9 (3,3,3) COUNTERPOINT. (a) Sixteenth-century counterpoint; (b) eighteenth-century counterpoint; (c) larger contrapuntal forms with emphasis on fugue. Prerequisite: 205c.

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.

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 investigations 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.

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—8 (4,4) ORAL CONFRONTATION OF IDEAS. Theory and practice in researching and debating problems of (a) fact and value; (b) policy.

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 COMMUNICATION PRACTICUM. 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 open to graduate students. Prerequisites: 24 hours in speech, senior standing.

410—4 CONCEPTS AND ROLE OF SPEECH CRITICISM. 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.

413—4 ANALYSIS OF POLITICAL COMMUNICATION. The influence of psychological and sociological factors in determining political communication strategies. Voter behavior, image promotion, forms of decision making, lobbying behavior, public opinion formation and interpretation, as they affect the form and effectiveness of speech communication in politics.

419—4 SEMINAR IN SPECIAL RHETORICAL PROBLEMS. The impact of contemporary culture, art, media, and values in the development of communication relationships in society. Focus on pertinent contemporary problems. May be repeated for total of 8 hours credit.

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. Prerequisite: GSK 123.

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: e.g., structural-functionalism, conflict theory, symbolic interaction, and exchange theory.

433—4 LINGUISTIC ASPECTS OF SPEECH COMMUNICATION. The role and impact of language development and evolution of man. Emphasis on communicative barriers resulting from intracultural and intercultural differences in language usage.

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 functions 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. Meet for 5 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.

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 of 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.

380—4 CLINICAL PROCEDURES IN SPEECH PATHOLOGY AND AUDIOLOGY. Principles underlying the clinical interview and client relationships. Procedures in obtaining, recording, and evaluating test results. Emphasis on principles of therapeutic methods. Prerequisite: consent of instructor.

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.

401—4 AUDITORY SENSATION AND SPEECH PERCEPTION. A study of the environment as a source of stimulation and the reception of this information by the vestibular and auditory sensory systems. The role of acoustic features for speech perception and language are examined. Causes of deficient perception are differentiated and discussed. Prerequisite: 360.

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 DISORDERS OF LANGUAGE. Basic principles of diagnosis and therapy for developmental and acquired problems. Prerequisites: 201, 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 hours credit. Graded on Pass/No Credit basis only. 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.

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 of credit. 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.

TELEVISION-RADIO

100—4 PROCESS AND EFFECTS OF MASS COMMUNICATION. Lecture. Examination of the theories, processes, and effects of the mass media in society. Interrelationships of the media.

159—4 DEVELOPMENT OF THE MOTION PICTURE. Emphasis on those artistic, technological, economic, and sociological factors influencing the growth of film. Screening and discussion of selected feature films.

200—4 SURVEY OF BROADCASTING. Lecture. The history of broadcasting, network structure, the industry as a part of American business, the Federal Communications Commission, and related areas.

201—4 BROADCAST WRITING. A study of the fundamentals of radio and television continuity writing including commercial copy, talks, interviews, music and feature programs. Prerequisite: typing skills.

202—4 BROADCAST PERFORMANCE. A skills course. 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. Preparation of own material for studio presentation. One lecture, four hours laboratory per week, intensive practice in studios.

230—5 RADIO PRODUCTION. A skills-content course. Production of programs for WSIE-FM, and/or participation in preparation of programs for other broadcast agencies. Intensive use of tools of broadcasting. Work with faculty, staff, and students in planning and producing programs. One lecture-critique session, four laboratory hours per week.

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 jobs involved in studio production. Prerequisite: consent of instructor.

301—5 TELEVISION PRODUCTION. A skills-content course. The use of scenic design and set construction, properties, lighting, special effects, graphics, costuming, make-up, and acting for television. Each student produces no less than a thirty-minute program suitable for presentation on public television. Three lecture-critique sessions, 4-6 hours laboratory per week. Prerequisites: 252, consent of instructor.

302a—4 RADIO NEWS. The principles and philosophy of radio news. Instruction and exercises in writing news copy for radio, including broadcast on WSIE. Emphasis on style, format, and delivery. Recording news events on assignment in the field. Prerequisites: 201, Journalism 103.

302b—4 TELEVISION NEWS. The principles and philosophy of television news. Emphasis on writing style and format, news program structuring and editing. Examines newscast, develops skills in newscast shooting, editing, and writing. Filming and editing news stories on assignment. Prerequisites: 201, Journalism 103.

303—4 BROADCAST ADVERTISING. Radio and television as advertising media and comparison with other media. Planning a campaign, production techniques, agency relationships, cost factors. Extensive preparation of commercial materials. Merchandising, promotion, interpretation of research. Case studies. Prerequisite: 200 and/or consent of instructor.

356—4 MOTION PICTURE PRODUCTION FOR TELEVISION. The philosophies, techniques, and equipment used in the production of film for the television medium. Participation in film production learning skills of camera operation, lighting, sound recording, editing, and finishing. Prerequisite: consent of instructor.

357—4 MOTION PICTURE PRODUCTION FOR TELEVISION II. Theory, procedures, and practice in sound-on-film production. Advanced problems in production, sound, editing, transfer, and mixes. Selection of topics, research, planning, and budgeting. Group preparation of filmed projects for television. Prerequisite: 356.

359—4 DRAMATIC WRITING. A study of basic structure of drama: writing of scenes and analysis of short and long dramatic works. Term project is a play analysis paper or original short play. Individual students are given permission to work in the areas of television, film, or radio. Prerequisite: consent of instructor.

390—4 SPECIAL PROBLEMS IN MASS COMMUNICATIONS. Special projects, research, and independent reading in mass communications for students capable of individual study under the guidance of a faculty adviser. Prerequisite: consent of instructor.

400—4 SEMINAR IN MASS COMMUNICATIONS. Problem-solving term projects using inter-media approaches. A team-taught course involving many members of the faculty, both in the mass communications area and the faculty at large. Invited professional guests. Prerequisites: consent of instructor, completion of other broadcast concentration courses.

401—4 CRITICISM IN THE PUBLIC ARTS. Television, radio, and film programs as art forms. Comparison and contrast with other of the "lively" and fine arts. Social, moral, aesthetic, and commercial evaluations. Development of critical standards, extensive viewing and hearing programs on videotape, film, and other. Prerequisite: senior standing.

402—4 SEMINAR IN BROADCAST MANAGEMENT. Management executives from stations are "guest faculty." Management responsibility, research goals, use of capital, advertising, public relations, etc. A research paper. Prerequisite: consent of instructor.

403—4 SEMINAR IN EDUCATIONAL BROADCASTING. Application of broadcasting skills and technology to the dissemination of information in a formal or an informal manner. Intended for those who expect to continue their education on the advanced degree level in educational broadcasting, who plan to enter educational broadcasting, or for teachers who will have responsibilities in the administration or use of the broadcast media as a part of their curriculum. Prerequisite: senior standing or consent of instructor.

404—4 RESEARCH IN BROADCASTING. The application of research techniques to the broadcast media. Evaluation of research. Participation in a research project designed by the class. Three class sessions per week, extensive arranged laboratories. Prerequisite: consent of instructor.

405—8 (4,4) THE DOCUMENTARY FILM. (a) 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. (b) The filmed and/or taped documentary as a basic programming concept in American television. The use of advanced editing equipment, sound and videotape recordings. Group projects for television documentary productions. Prerequisite: (a) 356 or Philosophy 345.

406—4 SPECIAL EVENTS. Broadcasting on radio and television of special events. Emphasis on remote broadcasting. Training in the preparation and production of one-time and/or occasional broadcasts. Live, audio, and videotaped program preparation. Prerequisite: consent of instructor.

407—12 (4,4,4) INTERNATIONAL COMMUNICATION. (a) History and growth of communications activities and institutions of the western and industrialized world, including the USA, Western Europe, the NATO countries and selected countries of the Far East. (b) Basic aspects of media theory and practice in communist-ruled societies. (c) Mass media in developing nations; modernization as it affects national development; uses of mass communication by governments, religious groups and businesses as they seek to communicate with people in nations other than our own.

408—4 TELEVISION AND RADIO REGULATIONS. Federal legislation with emphasis on Communications Act of 1934 and the regulations of the Federal Communications Commission, legal problems in program operations, censorship and editorial selections, copyright, and author-producer relations. Prerequisite: 200 or consent of instructor.

410—4 to 16 INTERNSHIP IN BROADCASTING. Professional experience with local media in the various phases of broadcasting, under joint supervision of members of the broadcasting faculty and of the media. May be repeated to maximum of 16 hours credit. Prerequisites: upperclassman in this concentration, consent of instructor.

450—4 SEMINAR IN SPECIAL PROBLEMS. Varied content. To be offered from time to time as need exists and as faculty interest and time permit. Prerequisite: consent of instructor.

466—8 (4,4) 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. Prerequisite: consent of instructor.

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 | o. Dance Composition (200, 300, 400 only) |
| b. Business Management (200, 300, 400 only) | p. Rehearsal-Performance |
| c. Costume Design-Production | q. Special Projects |
| d. Scene Design | r. Directing (300, 400 only) |
| e. Contemporary Theater Problems (100 only) | s. Stagecraft (100, 200, 400 only) |
| f. Fencing (100, 200 only) | t. Modern Dance Techniques (200, 300, 400 only) |
| g. Musical Theater (300, 400 only) | u. Movement (100, 200, 400 only) |
| h. Ballet | v. Voice |
| i. Improvisation (300, 400 only) | w. Scene Painting (200, 400 only) |
| k. Sound for Theater (200, 400 only) | x. Dunham Technique |
| l. Lighting (200, 300, 400 only) | y. Primitive Rhythms in Dance |
| m. Make-up | z. Dance Rehearsal Performance (300, 400 only) |
| n. Rhythmic Structure (200, 400 only) | |

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.

301—4 BLACK THEATER HISTORY. Historical development of black theater practices. Emphasis on script analysis, scene study, and the contribution of black playwrights to the theater discipline.

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: pre-school, elementary, junior and senior high, and adult. Emphasis on practical problem solution. Prerequisite: upperclass standing.

409—4 HIGH SCHOOL PRODUCTION PROBLEMS. Designed to acquaint the prospective teacher with some of the problems of directing a curricular and co-curricular dramatic program in the high schools. Prerequisite: senior standing.

410—8 (4,4) CREATIVE DRAMATICS. A study of the nature of creative dramatics and its use in classrooms and recreational programs both as a subject and as a teaching resource. (a) Introduction to the theory and practice of creative dramatics as an educational process. (c) Practicum: supervised planning and teaching of creative dramatics in the community. Must be taken in sequence.

415—8 (4,4) DANCE ANTHROPOLOGY. (See Anthropology 415.)

SCHOOL OF FINE ARTS AND COMMUNICATIONS FACULTY

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 Robert O. Anderson, Ph.D., Associate Professor of Speech Communication
 Stephen M. Brown, M.M., Assistant Professor of Fine Arts and Communications
 Evelyn T. Buddemeyer, B.S., Emerita Associate Professor of Art and Design
 Ann L. Carey, Ph.D., Professor of Speech Pathology and Audiology
 William D. Claudson, Ph.D., Professor of Music
 Stephen P. Clement, M.S., Instructor of Mass Communications
 Floyd W. Coleman, Ph.D., Associate Professor of Art and Design
 Don F. Davis, M.A., Chairman and Associate Professor of Art and Design
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 Pamela S. Decoteau, Ph.D., Assistant Professor of Art and Design
 Paul A. Dresang, M.F.A., Assistant Professor of Art and Design
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 Patricia A. Goehe, M.S., Assistant Professor of Speech Communication
 Annette M. Graebe, M.A., Assistant Professor of Speech Communication
 William J. Grivna, M.A., Assistant Professor of Theater and Dance
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 Johnetta A. Haley, M.M., Associate Professor of Music
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 Harry H. Hilberry, Ph.D., Professor of Art and Design
 David D. Huntley, M.A.C.A., Professor of Art and Design
 Warren A. Joseph, Ph.D., Professor of Music
 John D. Kendall, M.A., Professor of Music
 George M. Killenberg, Ph.D., Assistant Professor of Mass Communications
 Lynn F. Kluth, Ph.D., Professor of Theater and Dance
 Andrew J. Kochman, Ph.D., Emeritus Professor of Theater and Dance
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 James C. Landers, M.S., Lecturer of Mass Communications
 Marcia A. LaReau, M.M., Instructor of Music
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 Malcolm Lieblich, Ph.D., Professor of Speech Pathology and Audiology
 Donald Loucks, Ph.D., Assistant Professor of Music
 O. Eugene Maag, Ph.D., Professor of Speech Pathology and Audiology
 W. Craven Mackie, Ph.D., Associate Professor of Theater and Dance
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 George K. Mellott, Ph.D., Associate Professor of Music
 Judith A. Millis, M.F.A., Assistant Professor of Art and Design
 Kerry J. Miller, M.F.A., Assistant Professor of Theater and Dance

- Catherine E. Milovich, M.A., Emerita Professor of Art and Design
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Barbara Tirre, M.A., Assistant Professor of Mass Communications
Dorothy E. Tulloss, M.A.D., Emerita Professor of Music
Sarah T. Turner, M.A., Associate Professor of Music
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Margaret G. Violette, Ph.D., Associate Professor of Art and Design
William G. Ward, M.S., Professor of Mass Communications
Edwin B. Warren, Ph.D., Emeritus Professor of Music
Joseph A. Weber, M.S., Associate Chairman and Assistant Professor of Art and Design
Hollis L. White, Ph.D., Dean of School and Professor of Speech Communication
Richard A. Wilbur, B.F.A., Assistant Professor of Mass Communications
Ramon N. Williamson, Ed.D., Professor of Music
Aline J. Wiltz, III, M.F.A., Professor of Theater and Dance
Kamil Winter, State Exam, Prague, Associate Professor of Mass Communications
James P. Woodard, D.M., Professor of Music

SCHOOL OF HUMANITIES



CAROL A. KEENE, *Dean*

Offering degrees in:
American Studies
English Language and Literature
Foreign Languages and Literature
Philosophical Studies

SCHOOL OF HUMANITIES

The School of Humanities offers instruction in that portion of the liberal arts curriculum encompassed by its three departments: English Language and Literature, Foreign Languages and Literature, and Philosophical Studies. Courses in the Humanities are concerned with the good, the true, and the beautiful, as expressed in language. Students are asked to join in an examination of the values of those actions, experiences, and institutions which create or affect the human condition. They are also asked to learn to write and think effectively and to judge what is written and said for its elegance of expression and cogency of thought. While the School is not opposed to professional training, it believes the student is a human being before he or she is a doctor, lawyer, or industrial chief. It seeks, therefore, to preserve the college years as a time when the student engages in humane learning, believing that the student who does not receive such an education in his undergraduate years may not receive it at all. In addition to its contribution to the general education of all University students the School offers specialized instruction in the methods of studying and arriving at comparative evaluations regarding the works, the men and women, and the movements that make up literary and intellectual history. These students may choose a major in one of these four fields: English Language and Literature, Foreign Languages and Literature, Philosophical Studies, American Studies.

In addition, there are several programs and courses that are sponsored by the School rather than by any one of its departments: Humanities Honors Courses, The Writing Clinic, Colloquium Courses.

HUMANITIES HONORS PROGRAM, Dale S. Bailey, Coordinator

Each quarter the Humanities Honors Program offers at least one course designed specifically for the academically superior student at SIUE. Enrollment is open to any qualified student. Each course is a seminar, and enrollment, which is on a first-come first-served basis, is limited to fifteen students in any one course.

The basis of a course always comprehends multiple areas within the humanities. However, through cutting across several cultural and intellectual milieux, the course concentrates intensively upon one major topic or idea within them. It 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.

THE WRITING CLINIC, Gerald O'Gorman, Director

The Writing Clinic offers assistance in writing papers, reports, or theses to any student. Self-instructional materials in organization, paragraphing, term

paper writing, grammar, spelling, and vocabulary building are available. No enrollment or appointment is necessary. The Writing Clinic also extends its services to the public, upon request. The Clinic is located in the Peck Building, Room 1404.

STUDENT COLLOQUIUM

The Student Colloquium is a program in which a group of students may plan and carry out a unit of study and receive course credit. It is an opportunity to study subjects not in the regular curriculum or to experiment with new approaches to learning. Each colloquium group plans its objectives, outlines a course of study, and carries out planned activities. At the conclusion, the group summarizes its accomplishments and evaluates its achievements.

To form a class section a group of five or more students must agree upon a subject to be studied during the quarter. A minimum of five students must complete the course and participate in the determination of grades. To be eligible to participate, students must have sophomore or higher standing at time of registration.

In order to form a colloquium the interested students are required to find a faculty member willing to serve as a sponsor for the group. It is the duty of the faculty adviser to approve the topic and the terms of the proposal. The faculty adviser, upon request of the participants, is available for aid and direction during the course of the term.

After approval by a faculty adviser, the proposal is forwarded to the Colloquium Coordinator, on forms available from the Coordinator's office. Course proposals must reach the Coordinator in final form not later than the last day of registration of the quarter for which the colloquium is to be credited. The Coordinator decides whether the proposed colloquium is appropriate for credit, and how many hours of credit it should receive. The Coordinator also makes certain that, as stated in the catalog description, the proposed colloquium does not duplicate courses already available in the University curriculum.

The members of the colloquium submit their final report to the faculty adviser. It is due by the close of the final examination period of the quarter for which the colloquium is to be credited, and is to be submitted on forms available from the office of the Coordinator. The faculty adviser forwards the final report to the Coordinator, recommending approval or disapproval, along with the reasons supporting his recommendation. The Coordinator determines whether or not credit should be granted for the colloquium.

Students receive a grade of "pass" or "no credit," to be determined by the students participating in the colloquium.

Students may obtain up to 4 hours of credit in any one quarter, not to exceed 8 hours during any student's undergraduate career. 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 Coordinator approaches either the Director of General Studies or the undergraduate adviser of the department involved, whichever is appro-

priate, with the request. The outcome of the request is made known as early as possible, so that students do not labor under false hopes.

AMERICAN STUDIES

American Studies is an interdisciplinary approach to a study of American culture, past and present. Its roots are in American history, literature, and philosophy, but it branches into the fine arts, the American character, folklore, political science, economics, popular culture, and many other areas of study.

Studying America in this broad manner, the student avoids the traditionally narrow approach of a single discipline. Moreover, the student is better able to comprehend what is meant by the culture and civilization of America and the American. Finally, and perhaps most importantly, through American Studies the student is prepared to assume an intelligent role in America's future.

CAREER OPPORTUNITIES

Social Scientist	Researcher
Civil Servant	Personnel Work
Overseas Work	Teacher
Creative Writing	Secondary Social Science,
Reporter	Literature, etc.
Advertising	Editing
Museum Work	Curator
Librarian	Law
Social Work	Economics
Business	

Bachelor of Arts Degree, School of Humanities

General Studies Requirements (See Chapter 3.)	60
Requirements for Major in American Studies	92
Foreign Language (two years of same language)	24
GHA 202	4
GSS 300, 301, 302	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
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Minor in American Studies

A 28-hour multi-disciplinary minor in American Studies includes courses in American Studies, American Literature, American History, American Philos-

ophy, and American Art or Jazz. One elective from the following: 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.

Minor in Black American Studies

The Black American Studies minor is multi-disciplinary with courses in seven departments and in General Studies.

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: General Studies: GHA 205, 338; Anthropology 311, 411; Art 469a; Elementary or Secondary Education 480; English 341, 342a, 342c; Government 342, 442, 444; History 316a,b,c; Sociology 320, 420, 433.

For additional information regarding this minor or any of the courses, contact Dr. Edward Hudlin, Adviser, Black American Studies, Peck Building, Room 0228. A description of the program and a schedule of courses offered each quarter are available at the office.

ENGLISH

A thorough grounding in English is a necessity in almost every field. Inability to speak and write effectively is a frequent cause for dismissal from employment; conversely, the ability to communicate well is essential for promotion and richer opportunities in many professions.

Literacy, of course, includes knowledge of the significant ideas of the past and present and the ability to organize and express them, as well as one's own. The major concentration in English, besides offering an introduction to the world's literature, also includes a range of courses in writing; the student is thus given at several levels a training in perceiving and presenting his conceptions with judgment and clarity.

In a period when specific technical capability is often threatened by obsolescence, a discipline in literature and in writing and speaking, can give a graduate the confidence to meet the challenge of changing needs, whether his profession is in teaching or in a non-academic field.

Option I (General)

The major consists of 48 hours in English.

<i>General Studies Requirements</i>	60
<i>Requirements for Major in English¹</i>	48
Language Systems (300, 400, 401, 403)	4
Writing (325, 392a,b, 490, 492a,b)	4
Major Authors (404b, 471, 473)	4
Surveys (302a,b,c, 309a,b)	12
Electives in English (300-499)	24
<i>Foreign Language</i> (one year of same language)	12
<i>Free Electives</i> (under the General Studies Program)	12
<i>Minor</i>	24-28

¹At least 16 of these 48 hours 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 the degree.

Additional Electives	36-32
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Option II (Preprofessional)

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An English major may choose to enroll in the preprofessional 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 above B.A. in English, except that two years of a foreign language are required, and the student must take 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 ¹	48
Language Systems (300, 400, 401, 403)	4
Writing (325, 392a,b, 490, 492a,b)	4
Major Authors (404b, 471, 473)	4
Surveys (302a,b,c, 309a,b)	12
Criticism (301)	4
Electives in English	20
Foreign Language (two years of same language)	24
Free Electives (under the General Studies Program)	12
Minor	24-28
Additional Electives	24-20

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¹At least 16 of these 48 hours 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 the degree.

Bachelor of Science Degree, School of Education

General Studies Requirements (See Chapter 3.)	60
General Studies Courses for English Majors	8
Student should select two courses from this list: GHA 101, 202, 203, 204, 205, 206, 207, 209, 303, 305, 306, 307	
Requirements for Major in English ²	52
A. Language Systems	8
300, 391b, 391c, 400, 403	
B. Expression and Analysis	8
301, 325, 392a, 392b, 418, 490 (required), 492a, 492b, 495	
C. Literature	24
D. Teacher Preparation 485 (required)	4
E. Electives in English	8
Minor or Approved Supporting Courses ³	28
Professional Education Courses (See Secondary Ed. requirements)	37
Electives	12

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²At least 24 of these 52 hours must be in courses at the 400-level. Students must maintain a C average in all English courses accepted toward a degree.

³Student, in consultation with the Undergraduate Adviser, may use these hours 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, and others.

Minors¹

A 24-hour 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 student's adviser and in consultation with the English Department undergraduate adviser.

A 24-hour minor in linguistics consists of any linguistics courses at the 300 and 400 level, except English 391a. In addition, GHA 207 and English 404b may be accepted toward the minor. A student who has a major in English may have a minor in linguistics.

¹Students must maintain a C average in all English courses accepted toward a degree.

Minor in Creative Writing

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 392a, 492a, 498); Poetry (English 392b, 492b, 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 or 492 course that is outside the student's chosen program. A more complete description of the creative writing minor can be obtained at the English office or from the English undergraduate adviser.

FOREIGN LANGUAGES

The Department of Foreign Languages and Literature offers the Bachelor of Arts degree in Humanities with a major in Applied French, German, and Spanish languages and the Bachelor of Arts degree in Humanities with a major in French, German, and Spanish literatures. The Department also offers a minor in these languages in addition to Italian and Russian.

The major in a foreign literature offers the opportunity to learn to understand, speak, read, and write a foreign language to a level necessary for gaining an understanding and knowledge of the people who use the language, of their literature, and of their culture and civilization.

The major in a foreign language offers the opportunity to concentrate solely on the acquisition of a high level of proficiency in the language skills (understanding, speaking, reading, and writing) as they may be applied to various professions, i.e., business, government, science, mass communications, law, arts, education, health, etc. It is recommended that students who opt for the language major also declare an additional major or minor in another discipline.

CAREER OPPORTUNITIES

Law

Social Work

Diplomacy

Research

Teaching

Businesses Concerned with Travel

Hotel and Restaurant Management

Technical Interpreters

Medical Services

Urban Studies

Geography

Anthropology

International Business

Government Agencies

Scientific Linguistics

Journalism

- Transportation Companies

Technical Translators

Welfare Agencies
- Library Work

Criminology

Ethnic Studies

Major or minor credit is allowed only for those courses in which a student receives a grade of C or better.

Bachelor of Arts Degree, School of Humanities

Foreign Language Option

<i>General Studies Requirements (See Chapter 3. Waive GHA-8.)</i>	60
<i>Requirements for Major in a Foreign Language</i>	48-50
250c, 351, 352	12
Electives beyond 250c in a foreign language	36-38
<i>Minor Requirements (minimum)</i>	28
250c, 351, 352	12
Electives beyond 250c in a foreign language	16
<i>Electives</i>	56-54
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Foreign Literature Option

<i>General Studies Requirements (See Chapter 3. Waive GHA-8.)</i>	60
<i>Requirements for Major in a Foreign Literature</i>	48-50
250c, 351, 352	12
Electives beyond 250c in a foreign literature	36-38
<i>Minor Requirements (minimum)</i>	28
250c, 351, 352	12
Electives beyond 250c in a foreign literature	16
<i>Electives</i>	56-54
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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.

Bachelor of Science Degree, 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 in Foreign Languages

A minor consists of 24 hours (exclusive of elementary level) in a language.

Minor in Comparative Literature

The minor in comparative literature is 28 hours. Included are: two courses chosen from Comparative Literature 410a-e; Comparative Literature 480; one year of college level foreign language (or equivalent), not applicable toward the minor; and, four courses elected under advisement from the

following: Comparative Literature 210a,b,c; English 456; English 464; Philosophy 302; Philosophy 358e, 4 hours of foreign culture and civilization (cannot be counted toward both major and minor); 4 hours of GHA 342 (must be of a different area than preceding course); GHA 240; a 4-hour course in American or English literature; and a 4-hour upper level literature course in foreign language.

PHILOSOPHY

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. It involves inquiring into the reasons we have for believing what we do about these issues. Philosophers are thus also forced to consider the issue of what kinds of reasons are good reasons.

An important feature of the philosophy program at SIUE is the philosophy faculty. At present there are nineteen members of the department, all of whom have doctorate degrees. Furthermore, unlike many large universities, most of the classes, even the beginning courses, are taught by regular staff members. Philosophy classes are small enough that you can get the personalized attention characteristic of small colleges from teachers who are committed to teaching and who enjoy working with students. The 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.

What is the value of philosophy? Philosophy may not help you much in the way of earning a higher income, but it will help you to grow and develop into a more complete person, a person who has gained an appreciation of what it means to be a human being. Philosophy is relevant not primarily to your occupation as a money-maker but to your vocation of being a sensitive and enlightened person. Its aim is the development of your humanness. Consequently, though some students may not want to major in philosophy, almost every student should minor in philosophy. 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 planning to become writers, lawyers, artists or clergymen. Those wishing additional information or assistance concerning the philosophy program should contact the Department Office in Room 3212 of the Peck Building.

Bachelor of Arts Degree, School of Humanities

<i>General Studies Requirements (See Chapter 3. Waive GHA-8.)</i> . . .	60
<i>Requirements for Major in Philosophy</i>	52
Foreign Language (on intermediate level)	8
Philosophy 490	4
Three courses in Area I with no historical overlap	12
(See I under next section, General Areas Within Philosophy.)	
One course in each of the other Areas	12
Four more Philosophy electives	16

Minor	30-40
Electives	50-40

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For both majors and minors in the Department of Philosophical Studies, credit is allowed for only those courses in which grades of C or higher are earned.

Recommendations: It is strongly recommended that all students elect 200 early in their career. Also, if a student is seriously contemplating graduate work in philosophy, it is recommended that he/she satisfy the language requirement in either French or German, and that he/she take Philosophy 230, 376, and 385a and c.

GENERAL AREAS WITHIN PHILOSOPHY

- I. *History of Western Philosophy.* 385a,b,c,d,e—History of Western Philosophy sequence. 386—American Philosophy. 440—Philosophy and Nationality. 484a,b,c—History of Western Political Theory sequence. The following courses overlap historically: 484a with 385a and 385b; 484b overlaps with 385c; and 484c overlaps with 385d and 385e.
- II. *Metaphysics and Epistemology.* 300—Introduction to Metaphysics. 301—Philosophy of Religion. 302—World Religions. 355—Philosophy of Education. 380—Chinese Philosophy. 391—Introduction to Theory of Knowledge. 402—Hindu Thought. 403—Buddhist Thought. 443—Philosophy of History.
- III. *Logic and Methodology.* 230—Deductive Logic. 306—Introduction to Phenomenology. 307—Philosophy of Science. 308—Introduction to Philosophical Analysis. 430—Symbolic Logic. 435—Philosophy of Mathematics.
- IV. *Theory of Value.* 310—Introduction to Philosophy of Law. 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. 376—Ethical Systems. 470—Topics in Business Ethics.

Minor in Philosophy

A minor in philosophy consists of 24 hours in philosophy courses. One may count GHA 322 and either GSM 283 or GSS 283 toward this 24 hours, but other General Studies courses cannot be counted toward the requirements.

COURSES

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.

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.

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.

ENGLISH

100—1 COMPOSITION LAB. Individualized instruction in composition skills, using the facilities of the English Department Writing Clinic. 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.

300—4 PRINCIPLES OF ENGLISH SYNTAX. A study of word relationships in English sentences. Prerequisite: junior standing or consent of instructor.

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, 102.

340—4 THE BLACK IMAGE IN AUTOBIOGRAPHY AND ESSAY. An exploration of the major issues confronted by black American essayists and autobiographers from the eighteenth century to the present time.

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—12 (4,4,4) BLACK LITERATURE IN AMERICA. (a) Black American Poetry. Themes and techniques of major modern black poets; (b) Black American Novel. Representative major black novels in terms of ideas, values, techniques; (c) Black American Drama. Survey of twentieth century black drama.

391—12 (4,4,4) FUNDAMENTALS OF THE ENGLISH LANGUAGE. (a) Review of Traditional Grammar and Written Composition. Refresher course, emphasizing well-formed sentences, variation in sentence structure, grammaticality, polished style. Development of expository themes. Recommended for all disciplines. May be taken by English majors as an English elective, but not to satisfy the Language Systems requirement. (b) Sound Patterns and Word Constructions. 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. (c) Modern Grammar and Other Disciplines. Survey of grammatical applications to dialect, child language acquisition, reading problems, composition, foreign language teaching, language disability, and literary interpretation. Investigation of recent research done in these fields by language scholars and development of project or paper in concentration or area of interest. Need not be taken in sequence. Any one or all three sections may be taken for credit. Prerequisite for a: GSK 101 and 102 or equivalent; for b,c: junior standing or consent of instructor.

392a—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: GSK 102; or GSK 101 and consent of instructor.

392b—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 freshman composition, sophomore standing.

400—4 A SURVEY OF LINGUISTIC THEORIES AND CONCEPTS. A survey of linguistic concepts and theories as applied to English. Recommended for linguistics students and for those preparing to teach English. Prerequisite: junior standing.

401—4 INTRODUCTION TO GENERAL LINGUISTICS. (Cross-listed with Anthropology 401.) Introduction to concepts, methods, analytical techniques of linguistics with examination of their applicability to anthropological concerns — psycholinguistics, sociolinguistics, applied linguistics, literature, and folklore. Open to interested students in any discipline. Prerequisite: junior standing.

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—8 (4,4) MIDDLE ENGLISH LITERATURE. (a) Middle English literature excluding Chaucer; (b) Chaucer: *Canterbury Tales*. May be taken separately. 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 transformational-generative 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.

412—16 (4,4,4,4) ENGLISH NONDRAMATIC LITERATURE. (a) Poetry and Prose of the English Renaissance: Sidney Through Spenser. (b) 17th Century. (c) Poetry and Prose of the Augustan Age: Dryden Through Pope. (d) Poetry and Prose of the Age of Johnson. May be taken separately. Prerequisite: junior standing.

413—4 SPENSER. Reading and analysis of *The Faerie Queene*, *Amoretti*, and other major poems. Prerequisite: junior standing.

414—4 RESEARCH IN PSYCHOLINGUISTICS. In-depth research in and analysis of language acquisition by children applying a selected grammatical theory to a corpus of child speech. Each student works with a specific speech corpus and a specific theory. Prerequisites: 300, 391b, Speech Pathology and Audiology 312, Speech Pathology and Audiology 231 or consent of instructor.

418—4 APPLIED SEMANTICS. Applications of theories of verbal meaning to the interpretation of actual texts. Prerequisite: junior standing.

420—8 (4,4) AMERICAN POETRY. (a) Trends in American poetry to 1900 with a critical analysis of the achievement of the more important poets. (b) The more important poets since 1900. May be taken separately. Prerequisite: 309a or 309b.

421—16 (4,4,4,4) ENGLISH POETRY. (a) Early Romantics: major emphasis on general

background and on Blake, Coleridge, and Wordsworth; (b) later Romantics: emphasis on Byron, Shelley, and Keats, the minor figures; (c) Victorian poets: Tennyson, Browning, Arnold, and the Pre-Raphaelites. (d) modern British poets. May be taken separately.

431—12 (4,4,4) MAJOR AMERICAN WRITERS. Significant writers of short fiction and nonfictional prose from 1800 to the present (a) 1800-1865, (b) 1865-1918, (c) 1918-present. Prerequisite: junior standing.

438—4 INTELLECTUAL BACKGROUNDS OF AMERICAN LITERATURE. The relationship of basic ideas in America to American literature. Prerequisite: 309a or 309b.

442—4 ROMANTIC PROSE. Fiction of Austen, Scott, Mary Shelley, Peacock, the Gothic novelists, prose of Lamb, Landor, Hazlitt, DeQuincey; criticism, journals, and letters.

443—4 VICTORIAN PROSE. The chief writers of nonfictional prose from the late romantics to 1900. Prerequisite: 302c.

447—4 AMERICAN HUMOR AND SATIRE. A consideration of the writers and forms of 19th and 20th century humor.

454—12 (4,4,4) ENGLISH FICTION. (a) 18th Century: Defoe Through Jane Austen. (b) Victorian Novel: 1830-1900. (c) The English Novel in the 20th Century. May be taken separately. Prerequisite: junior standing.

456—4 MODERN CONTINENTAL FICTION. Selected major works of European authors such as Mann, Silone, Camus, Kafka, Malraux, Hesse.

458—8 (4,4) AMERICAN NOVEL. (a) The novel in America from its beginnings to the early 20th century. (b) Trends and techniques in the American novel from the early 20th century to the present. Prerequisite: junior standing.

460—20 (4,4,4,4,4) ENGLISH DRAMA. (a) Elizabethan drama: from the beginning of the drama in late Middle Ages through its flowering in such Elizabethan playwrights as Greene, Peele, Kyd, Marlowe, Heywood, Dekker, but excluding Shakespeare; (b) Jacobean drama: the Jacobean and Caroline playwrights: Johnson, Webster, Marston, Middleton, Beaumont and Fletcher, Massinger, Ford, Shirley; (c) Restoration and 18th century drama; after 1660, representative types of plays from Dryden to Sheridan; (d) 19th century drama; (e) Modern British and Irish drama. May be taken separately. Prerequisite: junior standing.

464—4 MODERN CONTINENTAL DRAMA. The continental drama of Europe since 1870; representative plays of Scandinavia, Russia, Germany, France, Italy, Spain, and Portugal.

468—8 (4,4) AMERICAN DRAMA. (a) The beginnings of American drama to World War I. (b) Modern American drama. Prerequisite: junior standing.

471—8 (4,4) SHAKESPEARE. (a) Comedies and histories, (b) tragedies and nondramatic works. May be taken separately.

473—4 MILTON. Reading of *Paradise Lost*, *Paradise Regained*, *Samson Agonistes*, minor poems, major treatises.

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 (2,2) 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.

486—2 to 8 WORKSHOP IN SECONDARY SCHOOL ENGLISH. Intensive workshop study of the teaching of English in the secondary schools. Lectures, laboratory work and conferences on the teaching of English. Curriculum, materials, methods, aims.

488—12 (4,4,4) TEACHING STANDARD ENGLISH AS A SECOND LANGUAGE. (a) Classroom techniques. (b) Laboratory methods. (c) Applications to problems arising from regional and social variations among speakers of American English. Prerequisite: junior standing.

490—4 ADVANCED COMPOSITION. Expository writing. May be repeated once for credit with permission. Prerequisite: junior standing.

492a—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 freshman composition; junior standing or consent of instructor.

492b—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 freshman composition; junior standing or consent of instructor.

494—4 LITERARY EDITING. An introduction to the basic principles of literary editing with special emphasis on fiction and poetry. Prerequisite: 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. Not given for graduate credit. May be repeated for total of 8 hours credit. Prerequisites: GSK 101, 102; junior standing or 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 chairman. Prerequisites: 250c, consent of faculty chairman.

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 chairman.

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.

493—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.

FRENCH

100—3 (1,1,1) FRENCH LANGUAGE PRACTICE. A minimum of one hour per week directed practice in understanding and speaking French at the elementary level using audio-visual materials. Recommended taken concurrently with 123a,b,c.

123—12 (4,4,4) ELEMENTARY FRENCH. Open to students who have had no previous work in French. Must be taken in sequence.

220—4 (2,2) INTERMEDIATE FRENCH CONVERSATION. (a) Practice in conversation. (b) Additional practice in conversation. May be taken separately. Prerequisite: 123 or equivalent.

250—12 (4,4,4) INTERMEDIATE FRENCH. Development of comprehension of the spoken language and oral expression, reading of modern prose selections, simple composition. Must be taken in sequence. Prerequisite: 123—12 or two years of high school French, or consent of department chairman.

301—12 (4,4,4) FRENCH LITERATURE OF THE 18TH AND 19TH CENTURIES (a) Montesquieu, Voltaire, Diderot, Rousseau, and others, with reference to the social, political, and philosophic environment of the 18th century. (b) Representative writers of the romantic period: Chateaubriand, Hugo, Balzac, Stendhal, and others. (c) From realism to symbolism; Flaubert, Zola, Baudelaire, Verlaine, and others. May be taken separately. Prerequisite: 250c or consent of department chairman.

303—4 ADVANCED FRENCH GRAMMAR AND USAGE. 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 chairman.

305—4 CONTEMPORARY PROFESSIONAL READINGS. Selections of publications related to the professions and concerns in contemporary France. Prerequisite: 250c or consent of department chairman.

307—4 ORAL INTERPRETATION. Contrastive analysis of English and French applied to oral interpretation. Prerequisite: 250c or consent of department chairman.

309—4 WRITTEN INTERPRETATION. Contrastive analysis applied to written interpretation. Prerequisite: 250c or consent of department chairman.

311—4 CONTEMPORARY FRANCE. Study of significant aspects of French culture. Prerequisite: 250c or consent of department chairman.

351—4 ORAL COMMUNICATION. Oral work of a practical nature for advanced students. Prerequisite: 250c or consent of department chairman.

352—4 ADVANCED FRENCH COMPOSITION. Practical composition for advanced students. Prerequisite: 250c or consent of department chairman.

362—4 BUSINESS FRENCH. Exercises in business correspondence emphasizing the acquisition of contemporary business vocabulary and idiomatic structures. A study of the cultural background of French business and publicity. Prerequisite: 250c or consent of department chairman.

408—8 (4,4) 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: 250 or equivalent.

451—6 (2,2,2) 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.

461—4 FRENCH STYLISTICS. Study of writing style in French and its application to the development of skill in written expression. For those who wish to do advanced work in the principles of French grammar and composition. Prerequisite: 9 hours of 300-level courses or consent of department chairman.

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: 280, consent of department chairman.

GERMAN

100—3 (1,1,1) GERMAN LANGUAGE PRACTICE. A minimum of one hour per week directed practice in understanding and speaking German at the elementary level using audio-visual materials. Recommended taken concurrently with 126a,b,c.

126—12 (4,4,4) ELEMENTARY GERMAN. Open to students who have had no previous work in German. Must be taken in sequence.

220—4 (2,2) INTERMEDIATE GERMAN CONVERSATION. (a) Practice in conversation. (b) Additional practice in conversation. May be taken separately. Prerequisite: 126 or equivalent.

250—12 (4,4,4) INTERMEDIATE GERMAN. Development of comprehension of the spoken language and oral expression, reading of modern prose selections, simple composition. Must be taken in sequence. Prerequisite: 126—12 or two years high school German, or consent of department chairman.

303—4 ADVANCED GERMAN GRAMMAR AND USAGE. A study of grammatical problems on an advanced level, development of correct usage, and vocabulary building in the German language. Prerequisite: equivalent of two years of college German or consent of department chairman.

305—4 CONTEMPORARY PROFESSIONAL READINGS. Selections of publications related to the professions and concerns in contemporary Germany. Prerequisite: 250c or consent of department chairman.

307—4 ORAL INTERPRETATION. Contrastive analysis of English and German applied to oral interpretation. Prerequisite: 250c or consent of department chairman.

309—4 WRITTEN INTERPRETATION. Contrastive analysis applied to written interpretation. Prerequisite: 250c or consent of department chairman.

311—4 CONTEMPORARY GERMANY. Study of significant aspects of German culture. Prerequisite: 250c or consent of department chairman.

314—8 (4,4) GERMAN LITERATURE FROM WORLD WAR I TO POST WORLD WAR II. (a) World War I to 1945: The war as motif; literature under the Weimar Republic; depression literature; new tendencies; the Nazi years. (b) Post World War II: Destruction and resurrection; later works of Mann and Hesse; exile literature; the Swiss and Austrians; Boll, Grass, Lenz, et. al.; the "other" (East) Germans. May be taken separately. Prerequisite: 250c or consent of department chairman.

316—12 (4,4,4) GERMAN LITERATURE FROM ROMANTICISM TO MODERN TIMES. (a) Introduction to the background, personalities and works of the period from 1798 to Heine. (b) The leading 19th century realists from Droste-Hulshoff to Fontane including the novel and drama of the period. (c) German literary masterpieces from naturalism to the present. May be taken separately. Prerequisite: 250c or consent of department chairman.

351—4 ORAL COMMUNICATION. Oral work of a practical nature for advanced students. Prerequisite: 250c or consent of department chairman.

352—4 ADVANCED GERMAN COMPOSITION. Practical composition for advanced students. Prerequisite: 250c or consent of department chairman.

362—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. Prerequisite: 250c or consent of department chairman.

401—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: 250c or consent of department chairman.

451—6 (2,2,2) 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.

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: 250c, consent of department chairman.

GREEK

160—12 (4,4,4) INTRODUCTION TO GREEK. Open to students with no previous work in Greek. Must be taken in sequence.

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: 160 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

100—3 (1,1,1) ITALIAN LANGUAGE PRACTICE. A minimum of one hour per week directed practice in understanding and speaking Italian at the elementary level using audio-visual materials. Recommended taken concurrently with 144a,b,c.

144—12 (4,4,4) ELEMENTARY ITALIAN. Open to students who have had no previous work in Italian. Must be taken in sequence.

250—12 (4,4,4) INTERMEDIATE ITALIAN. Development of comprehension of the spoken language and oral expression, reading of modern prose selections, simple composition. Must be taken in sequence. Prerequisite: 144—12 or two years of high school Italian, or consent of department chairman.

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: 250c, consent of department chairman.

LATIN

162—12 (4,4,4) INTRODUCTION TO LATIN. Open to students with no previous work in Latin. Must be taken in sequence.

250—12 (4,4,4) INTERMEDIATE LATIN. Basic principles of the Latin language taught through reading selections from classical, medieval, and renaissance Latin. May be taken out of sequence. Prerequisite: 162 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

100—3 (1,1,1) RUSSIAN LANGUAGE PRACTICE. A minimum of one hour per week directed practice in understanding and speaking Russian at the elementary level using audio-visual materials. Recommended taken concurrently with 136a,b,c.

136—12 (4,4,4) ELEMENTARY RUSSIAN. No previous knowledge of Russian required. Must be taken in sequence.

250—12 (4,4,4) INTERMEDIATE RUSSIAN. Development of comprehension of the spoken language and oral expression, reading of modern prose selections, simple composition. Must be taken in sequence. Prerequisite: 136—12 or two years of high school Russian, or consent of department chairman.

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: 250c, consent of department chairman.

SPANISH

100—3 (1,1,1) SPANISH LANGUAGE PRACTICE. A minimum of one hour per week directed practice in understanding and speaking Spanish at the elementary level using audio-visual materials. Recommended taken concurrently with 140a,b,c.

140—12 (4,4,4) ELEMENTARY SPANISH. Open to students who have had no previous work in Spanish. Must be taken in sequence.

250—12 (4,4,4) INTERMEDIATE SPANISH. Development of comprehension of the spoken language and oral expression, reading of modern prose selections, simple composition. Must be taken in sequence. Prerequisite: 140—12 or two years of high school Spanish, or consent of department chairman.

301—8 (4,4) SPANISH LITERATURE FROM THE GOLDEN AGE THROUGH ROMANTICISM.

(a) Representative works of the 16th and 17th centuries: Cervantes, Tirso de Molina, Lope de Vega, and others. (b) Romanticism in Spanish literature during the 18th and 19th centuries: Espronceda, Duque de Rivas, Jose Zorilla, and others. May be taken separately. Prerequisite: 250c or consent of faculty chairman.

303—4 ADVANCED SPANISH GRAMMAR AND USAGE. 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 chairman.

304—12 (4,4,4) MODERN SPANISH LITERATURE. (a) Spanish literature of the 19th century as influenced by trends of European thought of the period: Galdos, Bazan, Benavente, and others. (b) Spanish literature of the 20th century with emphasis on the novel, essay, and poetry: Unamuno, Ortega y Gasset, Garcia Lorca, and others. (c) Spanish literature of the post-Civil War period, with emphasis on the novel, drama, and poetry. May be taken separately. Prerequisite: 250c or consent of department chairman.

305—4 CONTEMPORARY PROFESSIONAL READINGS. Selections of publications related to the professions and concerns in contemporary Spain. Prerequisite: 250c or consent of department chairman.

307—4 ORAL INTERPRETATION. Contrastive analysis of English and Spanish applied to oral interpretation. Prerequisite: 250c or consent of department chairman.

309—4 WRITTEN INTERPRETATION. Contrastive analysis applied to written interpretation. Prerequisite: 250c or consent of department chairman.

311—4 CONTEMPORARY SPAIN. Study of significant aspects of Spanish culture. Prerequisite: 250c or consent of department chairman.

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. Prerequisite: 250c or consent of department chairman.

351—4 ORAL COMMUNICATION. Oral work of a practical nature for advanced students. Prerequisite: 250c or consent of department chairman.

352—4 ADVANCED SPANISH COMPOSITION. Practical composition for advanced students. Prerequisite: 250c or consent of department chairman.

362—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: 250c or consent of department chairman.

375—8 (4,4) SPANISH-AMERICAN LITERATURE. (a) Spanish-American literature from the colonial period through romanticism. (b) Spanish-American literature from modernism until the present. Prerequisite: 250c or consent of department chairman.

451—6 (2,2,2) SPANISH 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.

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.

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: 250c, consent of department chairman.

HUMANITIES

301—3 to 4, 302—3 to 4, 303—3 to 4 HUMANITIES HONORS. Prerequisites: sophomore standing, invitation of the Humanities Honors Program Committee.

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.

PHILOSOPHY

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.

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. A 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.

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. (Same as Women's Studies 321.) 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.

355—4 PHILOSOPHY OF EDUCATION. Survey of theories of education and their relationships to educational policies and practices, as elucidated by the great teachers. Satisfies the education requirement, Foundations of Education 355.

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.

376—4 ETHICAL SYSTEMS. In depth studies of representative ethical theories with emphasis on their systematic nature.

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. (See 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 IN 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 12 SPECIAL PROBLEMS. Seminar for qualified seniors and graduate students to pursue specific topics in depth. Varied content. Prerequisite: consent of instructor.

495—2 to 12 INDEPENDENT READINGS. Independent study in philosophy on a tutorial basis. Prerequisite: consent of instructor and chairman.

SCHOOL OF HUMANITIES FACULTY

- John I. Ades, Ph.D., Professor of English Language and Literature
Gene D. Allsup, Ph.D., Professor of Foreign Languages and Literature
James C. Austin, Ph.D., Professor of English Language and Literature
Dale S. Bailey, Ph.D., Professor of English Language and Literature
James H. Baltzell, Ph.D., Professor of Foreign Languages and Literature
John A. Barker, Ph.D., Professor of Philosophical Studies
Roberta B. Bosse, Ph.D., Associate Professor of English Language and Literature
John A. Broyer, Ph.D., Associate Professor of Philosophical Studies
David L. Butler, Ph.D., Associate Professor of English Language and Literature
Rino Cassanelli, M.S., Instructor of Foreign Languages and Literature
Janet D. Collins, Ph.D., Assistant Professor of English Language and Literature
Charles A. Corr, Ph.D., Professor of Philosophical Studies
Gladys Daniels, Emerita Assistant Professor of English Language and Literature
John R. Danley, Ph.D., Assistant Professor of Philosophical Studies
Gertrude C. Drake, Emerita Professor of English Language and Literature
Herman A. Dreifke, Emeritus Associate Professor of English Language and Literature
Robert W. Duncan, Ph.D., Professor of English Language and Literature
William J. Emblom, Ph.D., Associate Professor of Philosophical Studies
Claude Francis, Ph.D., Professor of Foreign Languages and Literature
Ellen Frogner, Emerita Professor of English Language and Literature
Linda K. Funkhouser, Ph.D., Assistant Professor of English Language and Literature
Paul L. Gaston, Ph.D., Associate Professor of English Language and Literature
Ronald J. Glossop, Ph.D., Professor of Philosophical Studies
William T. Going, Ed.D., Professor of English Language and Literature
Helen D. Goode, Ph.D., Associate Professor of Foreign Languages and Literature
A. Edwin Graham, Ph.D., Associate Professor of English Language and Literature
Toby D. Griffen, Ph.D., Assistant Professor of Foreign Languages and Literature
Paul F. Guenther, Ph.D., Professor of Foreign Languages and Literature
William S. Hamrick, Ph.D., Associate Professor of Philosophical Studies
Daniel F. Havens, Ph.D., Professor of English Language and Literature
Edward W. Hudlin, Ph.D., Associate Professor of Philosophical Studies
Nicholas T. Joost, Ph.D., Professor of English Language and Literature
Carol A. Keene, Ph.D., Dean of School and Associate Professor of Philosophical Studies
Sang-Ki Kim, Ph.D., Associate Professor of Philosophical Studies
E. Jean Kittrell, Ph.D., Assistant Professor of English Language and Literature

- Lloyd E. Kropp, M.A., Assistant Professor of English Language and Literature
- Barbara J. Lawrence, Ph.D., Associate Professor of English Language and Literature
- Edwin G. Lawrence, Ph.D., Associate Professor of Philosophical Studies
- Sonja M. Lind, M.A., Assistant Professor of Foreign Languages and Literature
- George W. Linden, Ph.D., Professor of Philosophical Studies
- Theresa R. Love, Ph.D., Professor of English Language and Literature
- Fritz Marti, Emeritus Professor of Philosophical Studies
- Gertrude Marti, Emerita Associate Professor of Foreign Languages and Literature
- William C. Meyer, Ed.D., Assistant Professor of English Language and Literature
- Garry N. Murphy, Ph.D., Assistant Professor of English Language and Literature
- Clyde M. Nabe, Ph.D., Assistant Professor of Philosophical Studies
- Gerald O'Gorman, Ph.D., Assistant Professor of English Language and Literature
- John L. Oldani, Ph.D., Associate Professor of English Language and Literature
- Betty T. Osiek, Ph.D., Professor of Foreign Languages and Literature
- Thomas D. Paxson, Jr., Ph.D., Chairperson and Associate Professor of Philosophical Studies
- Alfred Pellegrino, Emeritus Professor of Foreign Languages and Literature
- Jane C. Pennell, Ph.D., Assistant Professor of English Language and Literature
- Galen K. Pletcher, Ph.D., Associate Professor of Philosophical Studies
- Stella P. Revard, Ph.D., Professor of English Language and Literature
- Betty Richardson, Ph.D., Chairperson and Associate Professor of English Language and Literature
- Fred W. Robbins, Ph.D., Assistant Professor of English Language and Literature
- L. Dan Romani, M.A., Chairperson and Associate Professor of Foreign Languages and Literature
- Gerald J. T. Runkle, Ph.D., Professor of Philosophical Studies
- Sheila Ruth, Ph.D., Associate Professor of Philosophical Studies
- Barbara Q. Schmidt, M.A., Assistant Professor of English Language and Literature
- Margaret A. Simons, Ph.D., Assistant Professor of Philosophical Studies
- William C. Slattery, Ph.D., Professor of English Language and Literature
- George H. Soule, Ph.D., Assistant Professor of English Language and Literature
- Raymond J. Spahn, Emeritus Professor of Foreign Languages and Literature
- Dickie A. Spurgeon, Ph.D., Associate Professor of English Language and Literature
- Robert G. Stanley, M.A., Assistant Professor of English Language and Literature

Alvin D. Sullivan, Ph.D., Associate Professor of English Language and Literature

Marion Taylor, Emerita Professor of English Language and Literature

W. Bryce Van Syoc, Ph.D., Professor of English Language and Literature

P. Eugene Violette, A.B., Instructor of English Language and Literature

Robert G. Wolf, Ph.D., Associate Professor of Philosophical Studies

Gordon R. Wood, Ph.D., Professor of English Language and Literature

Jules Zanger, Ph.D., Professor of English Language and Literature

Veronique Zaytzeff, D.D.E.S., Assistant Professor of Foreign Languages and Literature

Robert J. Ziegler, Ph.D., Assistant Professor of English Language and Literature

SCHOOL OF NURSING



PATRICIA B. FORNI, Dean

NURSING

The School of Nursing offers a program of study leading to the Bachelor of Science degree in Nursing.

Nursing is a dynamic, therapeutic, interpersonal discipline which assists people in maintaining, restoring and promoting optimal health throughout their life span. Utilizing the professional nursing processes as a basis, the practice of nursing is operationalized through the nursing process which includes assessments, 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.

ADMISSION REQUIREMENTS

The baccalaureate program consists of foundational courses in the arts and sciences as well as 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.

The School of Nursing is in the process of phasing in a new curriculum. Students seeking admission to the School, Fall, 1979, should consult the program of study listed under content (PLAN A) for admission requirements. Students seeking admission Winter, 1980, should consult the alternative listing (PLAN B) for admission requirements. Prior to admission to the School, applicants must complete the course prerequisites.

Applicants must 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.

Admission criteria for the School include: (1) sophomore standing, (2) successful completion of prerequisite courses with grades of *C* or above, (3) minimum overall grade-point average of 3.50, and (4) completed application on file in the School of Nursing within the time deadline.

An application is considered complete when the application, official transcripts of all college course work, record of current course enrollment, and most recent cumulative grade-point average are in the applicant's file. Applicants are responsible for ensuring that materials are received (Box 66, School of Nursing) by February 1 for fall admission, July 1 for winter admission, and October 1 for spring admission. Applicants' files still incomplete after those dates will not be reviewed.

Applicants are first accepted in rank order from a list of students whose cumulative grade-point averages are 3.5 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. Furthermore, a grade of *D* or *E* in a course which could be used to meet a requirement for

admission to the School of Nursing may jeopardize the applicant's entrance into the School even if the same or a similar course is later completed successfully. Qualified applicants, because of limited enrollment in the professional program, may need to reapply for a quarter subsequent to the one for which they originally made application.

Annual physical examinations and specific diagnostic requests are required of all nursing majors.

Transfer students follow the same procedures and must meet the same criteria. In addition, transfer students 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.

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 testing out of courses in the nursing major. Any student who feels 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.

All students are encouraged to seek early advisement in the School of Nursing so that an appropriate program of study can be projected and they can receive additional information relative to School policies.

PROGRAM CONTENT

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 Examinations 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.

PLAN A

Bachelor of Science Degree, School of Nursing

(For students seeking admission to the School of Nursing through Fall, 1979)	
<i>General Studies Requirements (See Chapter 3. Waive GSM-8.)</i>	60
<i>Level I Courses</i>	44
Biology 210-4 ¹ , 312-8 ¹	12
Chemistry 110-12 ¹	12
Nursing 270-4 ¹ , 285-2 ¹ , 290-4, 305-4, 310-6	20
Science and Mathematics: GSM 101-4 ¹ , 130-4 ² , 144-5 ²	(13)
Social Science: GSS 130-4 ¹ , 260-4 ¹	(8)

¹Satisfactory completion (C or above) of these courses or their equivalent is prerequisite to admission to the School of Nursing.
²These courses are requirements (prerequisite or concurrent enrollment) for Biology 210 and Chemistry 110a, respectively.

Level II Courses	32
Nursing 330, 340, 375, 380, 390	
Level III Courses	20
Nursing 400, 410, 460, 470, 480/490	
Electives	36
Nursing 335, 405, 420, 451, 495 and/or non-nursing courses	
	192

PLAN B

Bachelor of Science Degree, School of Nursing

(For students seeking admission to the School of Nursing, Winter, 1980, and after)

General Studies Requirements (See Chapter 3. Waive GSM-8.)	60
Level I Courses	58
Anthropology: GSS 210-4 ¹	(4)
Biology: 210-4 ¹ , 312a-5 ¹ , 312b-5 ¹	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)
Nursing Electives	6
Nursing 401 through 442	16
	192

¹Satisfactory completion (C or above) of these courses or their equivalent is prerequisite to admission to the School of Nursing.

²Satisfactory 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. Failure in two clinical courses or a combination of three clinical and/or didactic courses (PLAN A)

will result in dismissal from the School of Nursing. After admission to the School, students must maintain a cumulative grade-point average of 3.0 or above to continue in nursing.

Progression and retention policies for students entering the School of Nursing under PLAN B are currently under review. Consult School of Nursing advisers and/or the Undergraduate bulletin board for announcements relative to these criteria.

All nursing majors are required to file reports of annual physical examinations. Most clinical courses have requirements for specific tests such as X-rays or nose culture. The Student Handbook for nursing students contains full details.

SPECIAL COSTS

Students wear a uniform while in clinical practice. See the Student Handbook for details. Additionally, students should be prepared to purchase a variety of health care equipment such as a stethoscope, bandage scissors, and a second-sweep watch. Achievement tests from the National League for Nursing, taken during the course of study, cost a total of \$18.00 payable to the Bursar.

Costs for special tests, such as nose cultures required by clinical agencies, are payable to the Bursar.

The School pin, available only at graduation, costs \$28.00 at this time. Payment is made in the School of Nursing.

Costs for State Board Examinations should also be anticipated.

Students must provide their own transportation to and from clinical agencies.

COURSES

Courses on the 300 and 400 level are open only to those students who are majoring in nursing.

PLAN A

170—4 GROWTH AND DEVELOPMENT. A developmental study of the individual from conception of senescence, with emphasis on physiologic, psychological, and social development. Prerequisite: general psychology or consent of instructor.

285—2 INTRODUCTION TO HEALTH CARE. A survey of professional nursing at the present time in relation to historical and other influences upon it. An introduction to nursing through concepts of health starting with community agencies. Promotion and maintenance of health and prevention of illness.

290—4 PSYCHO-SOCIAL CONCEPTS. A study of concepts related to the understanding of human behavior as a basis for providing therapeutic patient-centered nursing care. Emphasis placed on understanding the functions of the nurse as a psycho-therapeutic agent in providing this care. Introduction to nursing process and psycho-social assessment. Prerequisites: general psychology, general sociology, concurrent enrollment in 310 or consent of instructor.

305—4 PATHOPHYSIOLOGICAL CONCEPTS. Disturbances in normal physiology and the way these disturbances alter structure, physio-chemical composition, and function. Prerequisites: Chemistry 110a,b,c, Biology 312a,b, Biology 210 or concurrent enrollment.

310—6 INTRODUCTION TO CLINICAL NURSING. Fundamental skills basic to all clinical nursing. Through a problem-solving process, students plan and administer patient-centered nursing care in community clinical facilities. Prerequisites: all School of Nursing prerequisites, 270, 285 or consent of instructor, 390 or concurrent enrollment, 305 or concurrent enrollment.

330—6 MATERNAL-NEWBORN NURSING. Developing a concept of family-centered care for mothers and newborns. The aspects of nursing necessary to provide effective care throughout the maternity cycle-antepartum, intrapartum, puerperium, and care of the newborn. Concurrent clinical laboratory within an appropriate setting. Prerequisites: 310, 320.

340—8 NURSING OF CHILDREN. Developing a concept of family-centered care for infants and children. Providing nursing care based upon the developmental needs of the child, and the problems confronting him and his family. Concurrent clinical laboratory. Prerequisites: 290, 305, 310.

353—2 NURSING CARE OF EXCEPTIONAL CHILDREN AND THEIR FAMILIES. An elective designed to increase ability to utilize the nursing process in the care of the exceptional child. A number of planned experiences in state and community agencies. Focus of learning upon a selected category of exceptional children and, when feasible, work with skilled professionals in the care of these children. Prerequisites: satisfactory completion of Quarter 9 nursing courses, consent of instructor.

355—2 NURSING OF THE HIGH RISK INFANT. An in-depth study of high risk infants who are premature, small-for-gestational age, large-for-gestational age and post mature, and of the application of the nursing process in caring for these infants. Prerequisite: satisfactory completion of Quarter 9 nursing courses and/or consent of instructor.

375—6 PSYCHIATRIC NURSING. The interpersonal interaction and the communication which makes up the nurse-patient relationship. Focus upon increasing awareness of the self as potential tool for therapeutic effectiveness. Prerequisites: 290, 305, 310.

380—6 MEDICAL-SURGICAL NURSING I. Focus upon the nursing intervention based on underlying scientific principles relevant to the care of patients with selected medical-surgical conditions and/or illness. Emphasis on care of the patient with problems of the respiratory, cardiovascular, integumentary, and endocrine-metabolic systems. Prerequisites: 310, 320.

390—6 MEDICAL-SURGICAL NURSING II. Focus upon the nursing intervention based on underlying scientific principles relevant to the care of patients with selected medical-surgical conditions and/or illness. Emphasis on care of the patient with problems of the nervous and special senses, musculo-skeletal, digestive, and urinary-reproductive systems. Prerequisites: 310, 320.

400—2 NURSING SEMINAR. A study of selected health care issues and their implications which relate to the nursing profession. Not for graduate credit. Prerequisite: five clinical nursing courses.

410—4 HEALTH CARE MANAGEMENT. Beginning principles of management and administration emphasized in the application to health care settings. Problems involved in finding solutions to successful and acceptable plans to meet health care goals. Not for graduate credit. Prerequisite: five clinical nursing courses.

420—1 to 4 INDEPENDENT STUDY. Student projects and study in an area of nursing. Not for graduate credit. Prerequisite: consent of instructor.

451—4 NURSING IMPLICATIONS OF DRUG INTERACTIONS AND CLIENT BIOPHYSICAL EQUILIBRATION. A nursing elective designed to provide opportunity to relate knowledge of the interactions of pharmacologic classification to the effect of complex drug interactions. Discussion around possible nursing actions that lead clients toward equilibration while they are receiving multiple drugs. Not for graduate credit. Prerequisite: consent of instructor.

460—2 SEMINAR IN NURSING RESEARCH. An overview of the research process including analysis of the components which comprise an adequate research study. Emphasis on developing an awareness of the importance of research to the practice of nursing and the ability to critique research findings as an informed consumer. Not for graduate credit. Prerequisite: three clinical nursing courses.

470—6 COMMUNITY HEALTH NURSING. Perspectives in organized community health care and health services including community health nursing components concurrent with clinical laboratory practice. Not for graduate credit. Prerequisites: 330, 340, 375, either 380 or 390.

480—6 EPISODIC NURSING. Nursing practice that is essentially curative and restorative, generally acute in nature, and provided in the setting of the hospital or inpatient facility. Focus upon disturbances in normal physiology and the manner in which these disturbances alter structure, physio-chemical composition and function. Not for graduate credit. Prerequisites: 330, 340, 375, 380, 390, consent of instructor.

490—6 DISTRIBUTIVE NURSING. Prevention of disease and maintenance of health. Largely directed toward continuous care of persons not confined to health care institutions. Not for graduate credit. Prerequisites: 330, 340, 375, 380, 390, consent of instructor.

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. Not to be taken for graduate credit. Prerequisites: senior status, nursing major.

PLAN B

170—4 LIFE SPAN DEVELOPMENTAL CONCEPTS. A developmental study of the individual from conception of 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. After a broad overview of the philosophy and conceptual framework, a focus on the concept of the individual client as an open, developing system. Selected concepts related to aspects within client's intra- and interpersonal performance systems which maintain equilibration. An assessment of selected factors utilized in the processes of assimilation and accommodation which assist client in the maintenance of equilibration. 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. Focus on selected concepts related to aspects within the client's intra- and interpersonal performance systems which act as stressors threatening the maintenance of equilibration. An assessment of selected factors utilized in the process of assimilation and accommodation which support the client in coping with stressors which threaten the maintenance of equilibration. 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, a study of the nursing process as the contemporary framework for providing professional nursing care to individuals. The phases of assessment, including diagnosis and planning, are emphasized. Prerequisites: admission to School of Nursing; concurrent enrollment in 201, 221, 231, and 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. The phases of intervention and evaluation are emphasized. Focus on the effects of nursing practice standards upon the quality of health care delivery, 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. Focus on the development of intra- and interpersonal performance systems. The study of role and role behaviors as these influence/determine the individual's self-concept. The effect of role perceptions and expectations on nursing practice. The communication process necessary for establishing and maintaining intra- and interpersonal relationships. Students are 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 II. Focus on threats to the maintenance of intrapersonal performance systems. Stress as a human phenomenon arising from developmental and situational events. The defense and coping strategies used by the individual to aid in accommodating to stressors in his environment. The nurse's role in prevention of stress and providing therapeutic support for the client undergoing stress. Prerequisites: completion of Quarter 5 nursing courses; concurrent enrollment in 202, 212, 232 and 242 is expected; Biology 312b.

231—1 PSYCHOMOTOR NURSING SKILLS I. An introduction to simple skills of client care which provide the foundation for maintaining client equilibration. Basic skills of health assessment 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. 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. Focus on the application of knowledge and simple skills learned in the college classroom and laboratory associated with client maintenance. Through planned learning experiences in clinical practice settings, a focus on the use of nursing strategies which help client(s) maintain auto-regulatory functions of assimilation and accommodation as they deal with usual life stressors. The nursing process components are introduced and utilized through comparing and contrasting the health needs of a variety of clients. 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. Utilization of the nursing process to apply knowledge in the care of client(s) who experience a change in biopsychosocial health status as a result of commonly occurring stressors. The concepts of changing family, perception and coordination, oxygenation and fluid and electrolyte dynamics is the basis upon which clients are selected and students are assigned to provide nursing care. An exploration of the supportive role of the nurse and other health care professionals in helping client(s) to maintain individual optimal health and equilibration. A variety of structured health care settings are utilized. Clinical application of psychomotor and interpersonal skills is also required. Prerequisites: completion of Quarter 5 nursing courses; Biology 312b; completion of, or concurrent enrollment in, other Quarter 6 nursing courses.

353—2 NURSING CARE OF EXCEPTIONAL CHILDREN AND OTHER FAMILIES. An elective designed to increase ability to utilize the nursing process in the care of the exceptional child. A number of planned experiences in state and community agencies. Focus of learning upon a selected category of exceptional children and, when feasible, work with skilled professionals in the care of these children. Prerequisite: satisfactory completion of Quarter 9 nursing courses, consent of instructor.

355—2 NURSING OF THE HIGH RISK INFANT. An in-depth study of high risk infants who are premature, small-for-gestational age, large-for-gestational age and post mature, and of the application of the nursing process in caring for these infants. Prerequisite: satisfactory completion of Quarter 9 nursing courses and/or consent of instructor.

451—4 NURSING IMPLICATIONS OF DRUG INTERACTIONS AND CLIENT BIOPHYSICAL EQUILIBRATION. A nursing elective designed to provide opportunity to relate knowledge of the interactions of pharmacologic classification to the effect of complex drug interactions. Discussion around possible nursing actions that lead clients toward equilibration while they are receiving multiple drugs. Not for graduate credit. Prerequisite: consent of instructor.

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. Not to be taken for graduate credit. Prerequisites: senior status, nursing major.

The remaining courses for Plan B were in the process of being approved at the time of catalog preparation. For a full listing of the Plan B curriculum, please consult the School of Nursing.

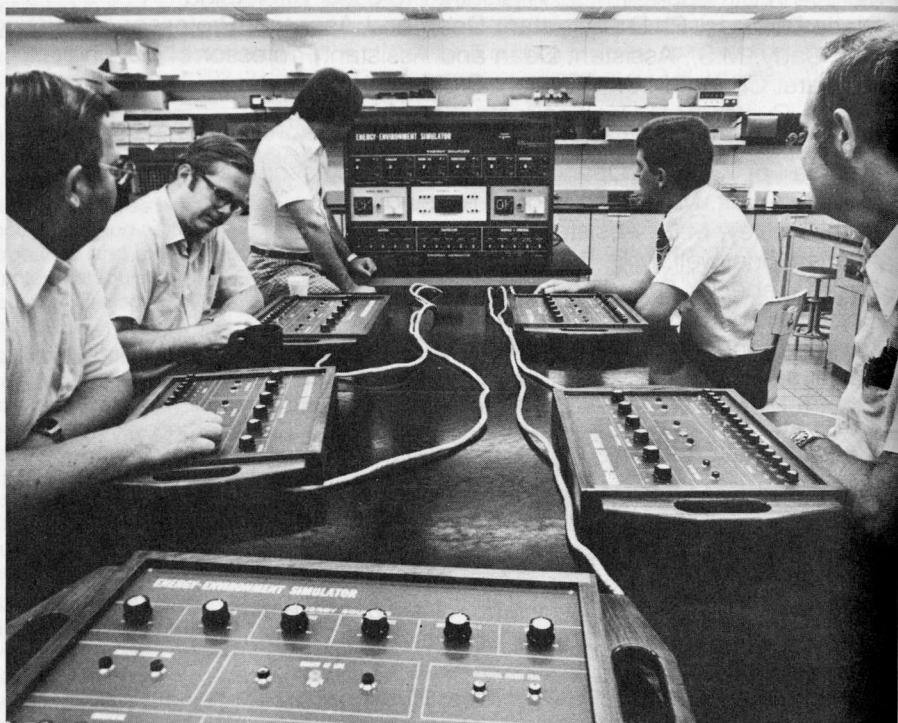
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Offering degrees in:
Biological Sciences
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Science
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SCHOOL OF SCIENCE AND TECHNOLOGY

The School of Science and Technology provides quality education in the natural sciences, mathematics and engineering at the bachelor's degree level and at the master's degree level in the natural sciences and mathematics. These programs provide basic training for those who will eventually progress to doctoral work and also develop broad scientific and technological skills for those who choose technical or teaching careers. As the need arises, we develop programs in interdisciplinary areas such as environmental science, and in direct job-training such as the programs at the Environmental Resources Training Center. By means of continuing education programs, technical consulting and cooperation, we seek to serve local institutions, industries, communities, and governments.

GRADUATION REQUIREMENTS

Candidates for the Bachelor of Arts or the Bachelor of Science degree with majors in any of the disciplines in the School of Science and Technology must meet the following requirements:

1. At least 48 hours of credit in one major with a minimum grade-point average of 3.00.
2. A minimum grade-point average of 3.00 for all courses in the major numbered above 299.
3. At least 9 hours of credit in the major in courses numbered above 299 must be earned at Southern Illinois University within two years preceding the completion of requirements for the degree being sought.
4. Upon completion of 64 hours of credit, each student in the unit must file a tentative curriculum outline with the department adviser.

Candidates for the Bachelor of Science degree in education who select a major within the School of Science and Technology must have at least 48 hours (or 36, if two 27-hour majors are completed in other areas of study) in that area with a minimum grade-point average of 3.00 overall and for all courses numbered above 299.

A minor within the School of Science and Technology must include at least 27 hours of credit with a minimum grade-point average of 3.00. Specific requirements, if any, are listed in this catalog under the heading Minor for the particular discipline.

To qualify for honors in an area of Science and Technology, one must complete at least 48 hours of credit, or the equivalent, in that area including successful completion of 9 hours of the corresponding honors program.

BIOLOGICAL SCIENCES

The Biological Sciences are appropriate for individuals interested in biochemistry, botany, ecology, microbiology, pre-health professional, medical technology, physiology, or zoology programs. Students planning to major in one of the degree emphases of the department should consult with an adviser at the earliest opportunity. The names of faculty who serve as advisers may be obtained from the departmental office, Science Laboratory Building, 3330.

GENERAL BIOLOGY

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 processes, the universality of adaptation, and the interdependence of the biosphere. As these threads are examined and interwoven, the human relationship to (relevance of) the whole world of life becomes apparent. Like the other sciences, biology is both cumulative and open-ended in its discoveries. It has to do with the wonders of life, the excitement of discovery, and the challenge of the unknown.

Students who are basically curious about how living things are put together, how they function, or how they are inter-related with their environment may want to study biology. Some background in the basic physical sciences is most helpful.

CAREER OPPORTUNITIES

Environmentally related occupations
Laboratory Technicians
Teaching (Biology, General Science)

Health related occupations
Research Assistants

Specialized careers in*

Bacteriology

Biochemistry

Fisheries Biology

Botany

Physiology

Wildlife Management

Ecology

Zoology

Naturalist or Park Ranger

Genetics

Microbiology

General Biology

Plant Physiology

*Certain of these careers may require more specialized training.

Bachelor of Arts Degree, School of Science and Technology

Major in Biological Sciences with an Option in Biology

General Studies Requirements (See Chapter 3. Waive GSM-8 and substitute 8 hours of courses included in the requirements below.)

52

Foreign Language Requirement

12

Biology Requirements

52

Biology 200, 301a, 302a, 302c, 303a 24

Electives (courses above 299 except 312a,b) 28

To include one course from each of three of the four areas below:

Cell and Physiology: 301b, 301e, 302d, 401, 406a, 441, 442, 443, 444, 445a, 446, 447

Organism: 302c, 315a,b, 411, 416, 421, 454, 455, 458, 470, 480, 483, 484, 485, 486, 487, 488, 489

Population: 303b, 303c, 410, 419, 420, 422, 423, 431, 436, 479

Microbiology: 304a, 304b, 404a, 424, 430, 471, 465a

A minimum of three courses at the 400-level is required. 491, 493, 494, and Chemistry 451 may be used as electives but will not fulfill specific course requirements.

<i>Chemistry Requirements</i>	26
Chemistry 125a,b,c	15
Chemistry 305a,b,c (or 341a,b,c) and 345a	11
<i>Physics and Mathematics Requirements</i>	12-16
Either Mathematics 150a-4, b-4 and GSM 101-4 or Physics 206a,b,c (or 211a,b,c and 312a,b)	
<i>A Course in Statistics</i> (GSM 244, Geography 410a, Psychology 300b)	4
<i>Electives</i>	34-30

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Ecology

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. The importance of this kind of study is bipartite, stimulating our own intellectual curiosity while providing increasing knowledge and new techniques to insure the health, productivity, and diversity of the biosphere.

The ecology option within the biological sciences bachelor's degree program will prepare students for positions which require application of ecological principles and processes to those modes of human activity which are environmentally responsive.

This option provides a strong ecological orientation within the existing biology program. In addition to completing the current degree requirements within biology, a student selecting this option will take a planned sequence of basic ecology courses which include: 1) ecology (a field oriented principles course), 2) Plant Synecology (plant interactions), 3) Systems Ecology (theoretical models), and near the end of a student's program, 4) Biological Environmental Assessment (application of ecological information). A variety of elective support courses are also available, and a student may choose to take an emphasis in various areas of ecology, such as plant ecology, animal ecology, ecological modeling, or physiological and biochemical ecology. Students should see an adviser about various emphases within the option.

Bachelor of Science Degree, School of Science and Technology***Major in Biological Sciences with an Option in Ecology***

<i>General Studies Requirements (See Chapter 3. Waive GSM-8 and substitute 8 hours of courses included in the requirements below.)</i>		52
<i>Biology Requirements</i>		40
200, 301a, 302a, 302c, 303a, 303c, 420a, 420b, 422 and environmental assessment or equivalent		
<i>Biology Electives (to include three courses at the 400 level)</i>		20
At least one course must be taken in three of the four areas of cell and physiology, organism, population, and microbiology, as described for the biology option of the major in biological sciences		
<i>Chemistry Requirements</i>		28
125a,b,c; 305a,b,c; 345a,b		
<i>Physics and Mathematics Requirements</i>		21-24
GSM 144, 244, and either GSM 101 and Mathematics 150, or Physics 206		
<i>Electives</i>		31-28
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Medical Technology

This degree option is designed for those students who wish to become certified Medical Technologists—MT (ASCP). Medical technologists are educated to understand the theory behind diagnostic tests which they perform on human fluids and tissues in the clinical laboratory. In addition, they troubleshoot and maintain complex electronic equipment as well as teach and supervise the work of other laboratory personnel. Their responsibilities encompass all of the clinical laboratory disciplines such as clinical chemistry, urinalysis, hematology, serology and immunology, blood and organ banking, microbiology, and parasitology, and nuclear medicine. As self-motivated, inquisitive scientists, med techs contribute to the development of new methods and laboratory instrumentation which aid the physician in the prevention and cure of disease. Most med techs 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. Three years of academic training take place on the SIUE campus during which time fundamental knowledge and skills in biology, chemistry, physics, and mathematics are to be mastered. College level writing, social science, humanities and fine arts requirements are also met during this time. 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. The year of study is awarded on a competitive basis and is not guaranteed to any student in the program. SIUE does not charge tuition during this year of study. SIUE awards the Bachelor of Science in Biology/Medical Technology upon completion of all four years of this program. Also at this time the student is eligible to apply for examination by the Board of Registry of the American Society of Clinical Pathologists and, if successful, is certified as an MT (ASCP). Under some circumstances credit is awarded for previous clinical work experience.

Students in this program should seek advisement early in their academic careers from the biology/medical technology adviser since there is a definite time sequence for the completion of these requirements.

Bachelor of Science Degree, School of Science and Technology

Major in Biological Sciences with an Option in Medical Technology

<i>General Studies Requirements (excluding those in mathematics/science)</i>	52
<i>Mathematics/Physics Requirements</i>	13
GSM 101, 144, and a statistics course or Mathematics 150a,b	
<i>Biology Requirements</i>	41
200, 301a, 303a, 304a,b,c, 312a,b, (302a and 302d may be substituted for 312a,b)	
Electives: 6 to 8 (Chemistry 451-3 may be used)	
<i>Chemistry Requirements</i>	33
125a,b,c, 235, 305a,b,c, 345a,b	
<i>Clinical Internship at Hospital School of Medical Technology</i>	55

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Medical Sciences

The pre-health professions curricula will provide the necessary preparation to qualify an individual for entry into Medical, Dental, Veterinary, Optometry, Osteopathy and Podiatry schools as well as into many other allied health programs.

A student considering a health-related profession should demonstrate well 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. The pre-dental student should also have or develop good manual skills and an ability to make acute judgments on space and shapes.

Many pre-health profession students elect to major in the biological sciences. However, other majors are also selected in the School of Science and Technology, e.g., chemistry. The biology program described below is designed to provide the student with a rigorous course of study which will satisfy the entrance requirements of the professional schools as well as award the student 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 dental or veterinary school.

The Pre-Professional Committee of the School of Science and Technology is responsible for advisement of pre-professional students and maintains a centralized recommendation service to aid the student during the application process. The chairperson of this committee is available in the Biology Department to advise students enrolled in medical science 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 these programs should seek advisement on a regular basis to insure satisfactory progress.

CAREER OPPORTUNITIES

Dental Medicine	Osteopathic Medicine
Medicine	Podiatry
Optometry	Veterinary Medicine

Such a basic program is also appropriate for innumerable careers in allied health sciences including nutrition, pharmacy, occupational and physical therapy, etc.

Bachelor of Science Degree, School of Science and Technology

Major in Biological Sciences with an Option in Medical Sciences

<i>General Studies Requirements (See Chapter 3. Waive GSM-8.)</i>	60
<i>Biology Requirements</i>	52
200, 301a, 302a, 302d, 303a, 304a, 315a,b	34
Electives to include three 400-level courses	18
<i>Chemistry Requirements</i>	29-32
125, 305 (or 341), 345a, and biochemistry (Biology 301e, 400, or Chemistry 451. Three hours of Chemistry 451 may be counted as biology elective hours but will not satisfy a 400-level course requirement.)	
<i>Physics Requirements</i>	(8)+7-8
206 (or 211 and 312)	
<i>Mathematics Requirement</i>	8
150	
<i>Electives</i>	36-32

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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 50 hours of the requirements in biochemistry, biology electives and general electives. In such cases the degree will be awarded at the end of the first year of professional school upon application by the student and receipt of the first year's transcript.

Students planning to apply for admission to a dental or veterinary school at the end of the junior year should complete physics during the sophomore year. The student may elect either to take Physics 206 during the second year, or to begin calculus no later than the spring quarter of the first year and take Physics 211 and 312 during the second year. The latter particularly will require good math background at the high school level and careful schedule planning during those first two years.

Bachelor of Science Degree, 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 course: 200, 301a, 302a,c, 303a; an overall biology grade-point average of 3.2 is required for entrance into the program and for student teaching approval. See secondary education requirements.

Minor in Biological Sciences

A minor in the biological sciences consists of a minimum of 27 hours of biology courses. An appropriate prerequisite course in introductory biology (Biology 200, GSM 130 or GSM 131) and at least two 300-level biology courses to be selected from the following (301a — Cell Biology, 302a — Animal Life, 302c — Plant Life, 302d — Physiology, 303a — Genetics, and 303c — Ecology) are required. The remaining hours of electives may be completed with any courses in the biological sciences except 491 and 493. No more than 8 hours may be counted from GSM 230, 231, 232, 233, 234, and 236.

COURSE PERFORMANCE REQUIREMENTS

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 Biology 200 or the equivalent course before a student can proceed into any of the courses numbered above 299.
2. No more than two biology courses may be repeated for major credit and these may be repeated only once.
3. No more than 5 hours of D may be counted in the 52 hours that are required for a major in the biological sciences.

CHEMISTRY

Chemistry is that science which deals with the properties, composition, and structure of matter and with the changes matter undergoes. The undergraduate programs introduce the student to the five conventional divisions of the subject: analytical, bio-, inorganic, organic, and physical chemistry, providing preparation for a variety of careers.

Courses of study, leading to the Bachelor of Arts degree in the School of Science and Technology, are: (a) a program approved by the American Chemical Society for the training of professional chemists (ACS program); (b) a "liberal arts" program in chemistry (non-ACS program); (c) a program of pre-professional training for medical science professions; and (d) a program leading to certification for teaching high school chemistry. Incoming students who are considering a major in chemistry should contact the Office of the Department of Chemistry before registering for any courses.

A major in chemistry provides an excellent preparation for graduate studies in chemistry or biochemistry, for professional training in medicine, dentistry, veterinary medicine, and pharmacy, and for employment at the baccalaureate level.

Chemical knowledge is fundamental to the production of rubber,

leather, dyes, explosives, drugs, plastics, adhesives, paint, metals, insecticides, textiles, soap, paper, semi-conductors, cosmetics, and petroleum products. Synthesis of new organic and inorganic chemicals is vital to the chemical industry. Most drug and plastics companies, for example, are selling substances unknown ten years ago. The development of adequate methods for analysis of these new materials requires constant research on instrumental and chemical methods of analysis. An understanding of molecular structure, thermodynamics, and the rates and equilibria of chemical reactions is essential for the development of new fuels and new industrial processes as well as for the understanding of many phenomena in nature. Environmental protection requires continual detecting and monitoring of substances which may be harmful.

Satisfying careers making significant contributions to society are available in many areas to persons with training in chemistry:

Health and Environmental — analytical chemist, clinical chemist, industrial hygienist, toxicologist.

Corporate and Government — forensic chemist, management, patent law, production, quality control, technical sales.

General — information retrieval, science library, teaching, technical writing.

DEGREE REQUIREMENTS

The degree requirements which follow are in addition to the general requirements of the School of Science and Technology previously listed.

A minor is not required for chemistry students; instead, they must satisfy one of two alternatives. They may take a minor and satisfy the requirements established by the department offering that minor and by the School of Science and Technology, or they may take a group of courses from more than one department which will support their major educational and career objectives. This alternative must include at least three courses totaling at least 12 hours of credit in addition to the requirements in mathematics and physics (i.e., one year each of calculus and physics), and must be approved by the Department of Chemistry undergraduate adviser. Guidelines are available from the adviser.

(a) American Chemical Society (ACS) Approved Program

<i>General Studies Requirements (See Chapter 3. Waive GSM-8 and substitute 8 hours of courses included in the requirements below.)</i>		52
<i>Foreign Language Requirement</i>		12
<i>Requirements for Major in Chemistry</i>		97
Chemistry 125, 126, 235, 261, 341, 345, 361, 365, 411, 432a or b		60
Mathematics 150, 260a		12
Physics 211, 312		16
Chemistry electives — at least three at 400 level (one may be mathematics or physics)		9
<i>Approved Supporting Courses or Minor</i>		12-27

Electives	19-4
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(b) Non-ACS Program

General Studies Requirements (See Chapter 3. Waive GSM-8 and substitute 8 hours of courses included in the requirements below.)	52
Foreign Language Requirement	12
Requirements for Major in Chemistry	79-83
Chemistry 125, 126, 235, 261, 341, 345, 361, 365	52
Chemistry 311-3 or 411-4	3-4
Mathematics 150, 260a	12
Physics 211-12 or 206-15	12-15
Approved Supporting Courses or Minor	12-27
Electives	37-18
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(c) Preprofessional Medical Program

The following program, which also leads to a Bachelor of Arts degree in chemistry, has been designed for those students desiring to meet the requirements for admission to professional medical and dental schools.

General Studies Requirements (See Chapter 3. Waive GSM-8 and substitute 8 hours of courses included in the requirements below.)	52
Foreign Language Requirement	12
Requirements for Major in Chemistry	82-83
Chemistry 125, 235, 261, 341, 345, 361, 365	52
Chemistry 311 or 411	3-4
Mathematics 150, 260a	12
Physics 206	15
Supporting Courses	17-19
Biology 200, 301a	9
Biology electives (two from 302a,d, 303a, 304a, 315a,b)	8-10
Electives	29-26
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Pre-medical students who enter a medical school after the junior year may obtain approval to apply appropriate medical school courses to complete the requirements for a major in chemistry.

(d) Secondary School Teaching Certification

General Studies Requirements (See Chapter 3. Waive GSM-8 and substitute 8 hours of courses included in the requirements below.)	52
Foreign Language Requirement	12

<i>Requirements for Major in Chemistry</i>	82-83
Chemistry 125, 126, 235, 261, 341, 345, 361, 365	52
Chemistry 311 or 411	3-4
Mathematics 150, 260a	12
Physics 206	15
<i>Professional Education Courses</i>	37
(See Secondary Education requirements)	
<i>Approved Supporting Courses</i> (in lieu of second teaching field)	12
	195-196

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 in Chemistry

A minor in chemistry normally includes 125, 126, and additional chemistry courses at the 200 level or higher to total at least 27 hours. It is important that the student contact the Department of Chemistry undergraduate adviser as early as possible to establish and obtain approval of a program which does not include 125 and 126. (105 is not acceptable for a minor.)

ENGINEERING AND TECHNOLOGY

The Department of Engineering and Technology offers programs leading to the Bachelor of Science in Engineering degree with majors in: Civil Engineering, Electrical Engineering, Engineering Science, and Industrial Engineering. The Civil Engineering and Electrical Engineering programs are accredited by the Engineers Council for Professional Development (ECPD), the only nationally recognized agency for accrediting engineering curricula in the United States.

The Department also offers the Bachelor of Science degree with a major in Construction or Environmental Systems Technology. The Construction program is designed to provide the graduates with the knowledge and skills necessary to coordinate the multifaceted aspects of the construction industry. The Environmental Systems Technology program provides an in-depth academic experience in the areas of environmental quality monitoring and processes management.

Graduates of the above programs have a wide variety of career opportunities available and are generally employed by the following organizations.

Manufacturing Companies	Universities
Public Utilities	Construction Companies
Oil Companies	Transportation Companies
Railroads	Municipalities
Processing Plants	State Agencies
Biological Laboratories	Federal Agencies
Aircraft and Missile Industries	Consulting Engineers
Enrollment in 300 or 400 level engineering courses is generally limited	

to engineering majors who have completed a pre-engineering program. The details of the pre-engineering programs are available from the Department of Engineering and Technology. Students with an engineering minor may enroll in these courses with the permission of their minor adviser. Other students wishing to enroll in 300 or 400 level engineering courses may do so only with the permission of the Chairman of the Department of Engineering and Technology.

All students who are interested in one of the majors offered by the Department of Engineering and Technology should seek advisement from the Department of Engineering and Technology immediately upon enrolling in the University.

ELECTRICAL ENGINEERING

Electrical engineering deals with electricity, man's most versatile servant. It is concerned with electrons, magnetic fields and electric fields — all invisible phenomena.

Electrical engineers 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.

Some examples of present uses of electricity are: electric power systems spanning the continent; world-wide communication systems incorporating transmission modes by wire, wireless, radio, television, microwave and satellite links. Space ships, electronic knives, microwave ovens, washing and sewing machines, transportation vehicles and manufacturing processes all use electrical energy and/or electrical controls to serve society better than would be possible without it. There is almost nothing that does not depend on electrons, electric and magnetic fields. That's what electrical engineering is all about. It is a fascinating and challenging profession in which to earn a living.

Bachelor of Science in Engineering Degree, School of Science and Technology

Major in Electrical Engineering	
<i>General Studies Requirements (See Chapter 3.)</i>	60
<i>Chemistry 125a</i>	5
<i>Economics 201, 341</i>	(4)+4
<i>Engineering 110, 200a,b,c, 201, 210, 260a,b, 270, 300, 301, 325, 326, 327, 330a,b, 341, 351, 352, 353, 401, 402, 444, 445, plus 13 hours of engineering electives</i>	91
<i>Mathematics 150a,b, 260a,b,c, 305</i>	(4)+20
<i>Physics 211a,b,c, 302a.</i>	(4)+12
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ENGINEERING SCIENCE

The engineering science program is designed to meet the need for engineers to be qualified in interdisciplinary areas of activity. For this reason, more chemistry, mathematics, physics, and biology is required for under-

graduates than may usually be required in traditional disciplines. The student is encouraged to complete double majors and minors in the Physics, Chemistry, Biology and Mathematics Departments. It is especially designed for students who wish to enter graduate school and desire broad training in applied science before selecting a specialty for graduate research.

During the third and fourth years, the student can select one of several specialty areas in which to concentrate the elective courses. Examples are the digital machines and chemical areas. The purpose of the specialty areas is to arrange course combinations that strengthen the interest of individual students in areas of activity, such as simulation, operations analysis, micro-processor systems engineering, instrumentation and minicomputer applications to control equipment used in other fields, as well as in engineering.

Bachelor of Science in Engineering Degree, School of Science and Technology

Major in Engineering Science

<i>General Studies Requirements (See Chapter 3.)</i>	60
<i>Chemistry 125a,b,c</i>	15
<i>Economics 201, 341</i>	(4)+4
<i>Engineering 110, 210, 220, 221, 260a,b, 270, 300, 320, 321, 370, 419, 420, 421, 443, plus 41 hours of engineering or science electives</i>	85
<i>Mathematics 150a,b, 260a,b,c, 305</i>	(4)+20
<i>Physics 211a,b,c</i>	(4)+8

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INDUSTRIAL ENGINEERING

Industrial engineering is a very special kind of profession. There is a uniqueness about the field; yet there is an extraordinary breadth of application. The basic objectives of the field relate to productivity—that is, what is the most effective use of each dollar spent for materials, equipment, manpower, etc. The United States is facing a crisis in productivity today and it is expected to extend into the future for many years. During the last decade, an ever-increasing number of products commonly used by the American consumer have been manufactured in other countries. For instance, 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 uniqueness of the educational curriculum and the extraordinary breadth of the application of the industrial engineer's knowledge creates a special niche for the industrial engineer in the future of this country and the world. The uniqueness of the training is brought about by the combination of topics related directly or indirectly to productivity, properly interspersed and balanced with engineering science, physical science and mathematics. The latter three things are exceedingly important because a productivity problem almost invariably is made up by a number of things from the physical world. They can be dealt with effectively and properly only if one has a sound knowledge of the physical world.

The future of this field is related to productivity but not necessarily productivity in the traditional sense. There are extremely important roles for the industrial engineer to play in problems related to the environment, pollution, job safety under the new and far reaching federal occupational safety act, mass transit, health and health systems, law enforcement, city management, banking and a host of other current, critical problem areas.

The industrial engineer generally has a great deal to do with people. The profession is, in fact, more human relations oriented than any other field of engineering. It must be remembered that one of the resource inputs, and usually the most important, into nearly every organization is manpower.

Bachelor of Science in Engineering Degree, School of Science and Technology

Major in Industrial Engineering

<i>General Studies Requirements (See Chapter 3.)</i>	60
<i>Chemistry 125a</i>	5
<i>Economics 201, 341</i>	(4)+4
<i>Engineering 101a, 110, 210, 220, 221, 260a,b, 270, 320, 321, 332, 333, 360, 410, 452, 458, 471, 472, 473, 474, plus 17 engineering elective hours</i>	85
<i>Management 341</i>	4
<i>Mathematics 150a,b, 260a,b,c, 305, 480a,b</i>	(4)+26
<i>Physics 211a,b,c</i>	(4)+8

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CIVIL ENGINEERING

Civil engineering is the profession in which a knowledge of the mathematical and physical sciences gained by study, experience, and practice is applied with judgment to develop ways to utilize, economically, the materials and forces of nature for the progressive well-being of mankind in creating, improving and protecting environment, in providing facilities for community living, industry and transportation, and in providing structures for the use of mankind.¹ The following specialties are available to students majoring in civil engineering.

¹Official description of Civil Engineering adopted by the American Society of Civil Engineers in 1961.

STRUCTURAL

The projects of the structural engineer take many forms and cover a wide range of industries. Buildings, bridges, dams, aircraft, containment vessels and power plants are but a few examples of the areas of involvement. The structural engineer is employed in the planning, design, and construction phase of the project. Academic preparation includes studies in engineering materials, economics and the environmental impact of the structure in addition to the background of mathematics and physical sciences.

ENVIRONMENTAL

Environmental engineers strive to improve the community's well-being. They plan and design municipal water facilities such as filtration plants and

sewage-treatment plants, massive structures requiring the specialized knowledge of both civil-environmental engineers and chemists. Environmental engineers are also responsible for the engineering work associated with control of water and air pollution.

TRANSPORTATION

The transportation engineer is involved in planning, designing, and constructing the nation's transportation systems. He assists in the local and regional transportation planning processes and is assuming an ever increasing role in the continued operation and maintenance of these systems. Diverse factors such as structural design of pavements, vehicle operation characteristics, geometric design, traffic control and site selection are major concerns to the transportation engineer. He also considers how transportation facilities affect environmental factors including air and noise pollution. The transportation engineer is involved along with professionals from other disciplines in the effort to improve the quality of life through the development of a safe, efficient, and economical national transportation network.

Bachelor of Science in Engineering Degree, School of Science and Technology

Major in Civil Engineering

<i>General Studies Requirements (See Chapter 3.)</i>	60
<i>Chemistry 125a,b, 126a,b</i>	10
<i>Economics 201, 341</i>	(4)+4
<i>Engineering 101a, 110, 210, 220, 221, 230, 260a,b, 263, 270, 300, 314, 316, 320, 321, 340a, 370, 376, 380a, 419, 421, and 443; plus one of the following specialties:</i>	90
Structural: 340b, 440, 442 and 9 hours engineering electives	
Environmental: 380b,c, 480a and 9 hours engineering electives	
Transportation: 363, 463, 475, and 10 hours engineering electives	
<i>Mathematics 150a,b, 260a,b,c, 305</i>	(4)+20
<i>Physics 211a,b,c</i>	(4)+8

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CONSTRUCTION

The objective of the construction program is to provide the 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. The labor force of the construction industry includes skilled and unskilled labor, engineers, accountants, financial analysts and business managers to mention a few. The scope of construction includes everything from the most meager project costing a few hundred dollars to projects whose total cost may be in the 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.

Bachelor of Science Degree, School of Science and Technology

Major in Construction	
<i>General Studies Requirements (See Chapter 3.)</i>	60
<i>Accounting 230-4, 232-4</i>	8
<i>Chemistry 110a-4</i>	4
<i>Economics 201-4, 310-4</i>	8
<i>Engineering 101a-3, 262-3, 260a-4, 270-4</i>	14
<i>Finance 320-4</i>	4
<i>Management 342-4, 390-4</i>	8
<i>Mathematics 150a, 150b, 260a</i>	(4)+8
<i>Physics 221a, 211b, 211c</i>	(4)+8
<i>Construction 101-1, 102-4, 264-4, 201-4, 202-4, 301-4, 321-3, 302-4, 331-4, 351-4, 375a-1, 332-3, 341-4, 352-4, 375b-2, 403-4, 475a-1, 411-4, 451-4, 475b-1</i>	64
<i>Electives</i>	6
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ENVIRONMENTAL SYSTEMS TECHNOLOGY

Environmental Systems Technology deals with environmental quality monitoring and processes management.

The analytical methods for quality assessment of water and air are studied and practiced. Principles of water purification, wastewater reclamation, and air pollution control devices are examined. Solid wastes handling methods are studied. The fundamentals involved in monitoring systems and projects are explored.

Coupled with an appropriate minor such as business, chemistry, engineering science, or others, the student should find a ready market with municipalities and industries which operate pollution control equipment and monitoring systems and with regulatory agencies which oversee these activities.

Bachelor of Science Degree, School of Science and Technology

Major in Environmental Systems Technology	
<i>General Studies Requirements (See Chapter 3.)</i>	60
<i>Biology 200, 215</i>	8
<i>Chemistry 125-11, 126-4</i>	(4)+11
<i>Engineering 101a-3, 210-4, 263-3</i>	10
<i>Environmental Systems Technology 101, 301, 302, 303, 304, 320, 330, 420, 430, 440, 460, 470</i>	48
<i>Mathematics 150a,b</i>	(4)+4
<i>Physics 206</i>	15
<i>Courses for Minor</i>	12-28
<i>Electives</i>	24-8
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Minor in Engineering

A minor in engineering consists of 27 hours which have been chosen with the consent of the Chairperson of the Department.

MATHEMATICS, STATISTICS, AND COMPUTER SCIENCE

The offerings of the Department of Mathematics, Statistics, and Computer Science are designed to enable students to pursue several programs in preparation for careers in mathematics, statistics, or computer science. Typical careers are those of the professional mathematician, statistician, or computer scientist in academia, government, or industry, the programmer, the systems analyst, the actuary in the insurance industry, or the teacher in schools or community colleges.

Four programs are described below. Each of them can be varied in emphasis by judicious choice of electives, and our advisers are prepared to suggest selections appropriate to different career goals or areas of interest. Such areas might, for example, include operations research, numerical analysis, and pure or applied mathematics. All programs, however, must include the departmental core, which consists of 150, 260, 272, and 321. Optimally, the core should be started no later than the second quarter of the freshman year and should be completed by the end of the sophomore year. The prospective major should note that 125 or equivalent high school preparation is prerequisite for 150. The Department of Mathematics, Statistics, and Computer Science offers an extensive preparatory program for students having need of skills development.

Upon choosing a major in mathematics, statistics, or computer science, the student should apply to the Department for the assignment of an adviser; together, they will plan and place on record a program of study. Student majors in this Department are required to consult with their advisers prior to registration for the following quarter. Students who will not attend summer classes must consult with their advisers in the spring quarter preceding any fall quarter in which they expect to enroll.

Prospective teachers can meet certification requirements in a program, described below, that leads to a Bachelor of Science degree from the School of Education.

All students for whom mathematics, statistics, or computer science is a major or minor should familiarize themselves with the regulations of the School of Science and Technology, which includes the requirement that a minimum average of 3.00 must be attained in courses constituting a major or minor. Any student who receives a grade of D in a course prerequisite for another mathematics course should retake the prerequisite course before proceeding.

The distinction between the B.A. and B.S. degrees is the language requirement. Any major in this Department may choose to be awarded the B.A. degree rather than the B.S. degree if his electives include 12 hours credit in a foreign language which is not English or his own native language.

Bachelor's Degree, School of Science and Technology

<i>General Studies Requirements</i>	60
<i>Departmental Core Requirements</i>	32

Physics 211a,b or 211a,c (4)+4

Mathematics, Statistics and Computer Science 150, 260,
272, 321 28

<i>Additional Requirements</i>	100
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OPTION 1 (MATHEMATICS)

Mathematics, Statistics and Computer Science
305, 323, 421a, 450a, 463a, 465a, 480a,
486a 26

9 hours from 421b, 450b, 463b, 465b, 480b,
486b 9

Electives 65

(Students who intend to pursue graduate studies or become industrial mathematicians should, in consultation with their advisers, elect an appropriate selection of courses from Mathematics, Statistics and Computer Science 421c, 442, 450c, 463c, 465c, 480c.)

OPTION 2 (STATISTICS)

Mathematics, Statistics and Computer Science
305, 480, 481, any 9 hours from 482, 484,
485, 487, and a 27-hour minor 52

Electives 48

OPTION 3 (COMPUTER SCIENCE)

Mathematics, Statistics and Computer Science
273, 323, 365, 371, 373, 374, 380, 470,
472a, 473, Management Information Sys-
tems 400, and 15 hours, including at least
one sequence, from Mathematics, Statistics
and Computer Science 475, 476, 477, 478 59

Electives 41

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Bachelor of Science Degree, School of Education

<i>General Studies Requirements</i>	60
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<i>Departmental Core Requirements</i>	32
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Physics 211a,b or 211a,c (4)+4

Mathematics, Statistics and Computer Science 150, 260,
272, 321 28

<i>Additional Requirements</i>	47
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Mathematics, Statistics and Computer Science 420a,b and
435a,b or 435a,c plus 8 hours of mathematics, statistics
and computer science electives at the 300 level or
higher 20

Minor 27

<i>Professional Education Requirements (See Secondary Education.)</i> . .	32
<i>Electives</i>	21

Minors

Majors in other departments who wish to obtain a minor in the Department of Mathematics, Statistics, and Computer Science should declare the minor at the Office of Academic Advisement.

A minor in mathematics must include 150, 13 hours from mathematics, statistics, and computer science courses numbered 300 or higher, and 6 hours from mathematics, statistics, and computer science courses numbered 300 or higher. An easily delineated minor consists of 150, 260, 321 and one of 305, 323, 365, 380. 272 is also recommended.

A minor in computer science must include 272, 273, 373, and 472a and total 27 or more hours. A recommended minor consists of 272, 273, 371, 373, 472a, 473, and 475a. NOTE: this minor does not require a knowledge of calculus. A knowledge of COBOL is, however, prerequisite for 475a. This prerequisite can be satisfied by completion of Management Information Systems 400.

No General Studies course or mathematics, statistics, and computer science course numbered less than 125 may be used as a component of a minor, and at least 6 hours at the 300 level or higher must be taken in this Department. A grade-point average of 3.00 must be maintained in the minor.

Majors in this Department may obtain minors in other departments. Several possibilities are listed below.

Business (Economics): Economics 200, 201, 440, 441, 465, and 8 hours from 310, 341, 355, 430, 467.

Business (Management Information Systems): Accounting 230, 232, Management Information Systems 381 or 428, 400, 401, Marketing 371, Production 315.

Engineering (Digital Hardware): Engineering 200, 201, 326, 327, 482, 483.

Physics: Physics 211, 302, 312a and 5 hours from 308, 312b, 405.

PHYSICS

Physics is a discipline which used to be called Natural Philosophy. This older name gives a clear indication of what physics is all about. 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 the student 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 the subject, physics students are made aware of the various applications which lead to the topics that are so much in the

news today. For example, solid state theory of semiconductors and transistors brings the student into contact with electrical engineering and the electronics industry; statics and dynamics introduce 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 degree program 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. Unlike the Bachelor of Science program, the Bachelor of Arts degree requires one year of foreign language, and there is somewhat more freedom in the student's choice of 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 degree in education with a major in physics.

CAREER OPPORTUNITIES

Because physics is the most fundamental of the sciences, career opportunities are varied. The first that come to mind are the obvious ones of teaching at levels from kindergarten to graduate school and basic research in physics. In addition to these, there are many possibilities in industry, e.g., computer service, technical development, quality control, etc., where a technical background is necessary but not perhaps as specialized as a degree in engineering might provide. Many problems in energy resource development and conservation are clearly dependent on basic and applied physics concepts.

Bachelor of Arts Degree, School of Science and Technology

General Studies Requirements (See Chapter 3. Waive GSM-8.) . . .	60
Requirements for Major in Physics	74
Foreign Languages (equivalent of one year)	(12)
Chemistry 125a,b	10
Mathematics 150a,b, 260a,b	16
Physics 211a,b,c, 302a,b, 308a,b, 312a,b, 405a,b, plus 2 hours of lab above 400 and 6 hours electives above 302	48
Minor	3-27
Electives	55-31
	192

Bachelor of Science Degree, School of Science and Technology

General Studies Requirements (See Chapter 3. Waive GSM-8.) . . .	60
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<i>Requirements for Major in Physics</i>	82
Chemistry 125a,b	10
Mathematics 150a,b, 260a,b,c, 305	24
Physics 211a,b,c, 302a,b, 308a,b, 312a,b, 405a,b, 415a, 418 plus 2 hours electives	48
<i>Minor</i>	3-23
<i>Electives</i>	47-27
	192

Bachelor of Science Degree, 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. The program is designed for students who have shown verbal rather than mathematical formalities that the student will obtain an appreciation for the important role played by the physical sciences in the development of our Western culture.

<i>General Studies Requirements (See Chapter 3. Waive GSM-8.)</i>	60
<i>Requirements for Major in Physical Science</i>	75
GSM 102, 110, 111, 306 and two courses (8 hours) from GSM 283, 300, 301, 302, or 305	24
Chemistry 125a,b,c	15
Physics 206a,b,c	15
Science and Technology 402, 403, 415	13
Mathematics 150	8
<i>Professional Education Courses (See Secondary Education.)</i>	37
<i>Electives</i>	20
	192

Minor in Physics

A minor in physics includes 211, 302, 312a and 5 elective hours above 302 to total 27 hours. Minors are encouraged to consult with the minor adviser concerning the 5 elective hours.

COURSES

BIOLOGICAL SCIENCES

200—4 INTRODUCTION TO BIOLOGICAL SCIENCES. An introduction to the major unifying concepts among the biological sciences, metabolism, physiology, organization, genetics, evolution, and ecology. Three hours lecture, three hours laboratory per week. Prerequisite: Chemistry 125a or concurrent enrollment.

210—4 BACTERIOLOGY. A treatment of cytology; theories and techniques of staining; physiology and classification of microorganisms; and their medical relationships. Two lecture and four laboratory hours per week. Prerequisite: GSM 130.

215—4 SANITARY MICROBIOLOGY. The microbiology of water, wastes, and sewage from the standpoints of significance, ecology, and conversion of organic matter. Laboratory work includes aseptic techniques, sterilization of culture media, plate counts, use of selective and

differential culture media, staining techniques, and microscopy. Two lecture hours, two two-hour laboratories per week. Prerequisites: GSM 130, Sanitation Technology 101, 203, 204.

301a—5 CELL BIOLOGY. Cell structure and function. Structure, organization, and function of cells, organelles, and macromolecules. Four lecture and three laboratory hours per week. Prerequisites: 200, Chemistry 305a or 341a.

301b—3 CELL BIOLOGY. A continuation of 301a. The structure, function, and biogenesis of various cell parts; the biosynthesis of macromolecules; the mechanisms through which the cell regulates such processes as growth, metabolism, and gene expression. Research papers in the above areas are emphasized. Three lectures per week. Prerequisite: 301a.

301e—3 BASIC BIOCHEMISTRY. The relation between the structure and function of biologically important macro-molecules. Nucleic acids, proteins, and carbohydrates, with emphasis on the regulation of their biosynthesis and degradation. The importance of these ideas to modern biology. Three lecture hours per week. Prerequisite: Chemistry 305c or 341c.

302a—5 ANIMAL LIFE. 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: 200.

302c—5 PLANT LIFE. Structure, nutrition, growth, differentiation and reproduction in the plant kingdom. Three lecture and four laboratory hours per week. Prerequisite: 200.

302d—5 PHYSIOLOGY. Function and regulation in animals. Four lecture and three laboratory hours per week. Prerequisites: 302a, Chemistry 125a,b.

303a—5 GENETICS. Mechanisms of inheritance, gene action, and genetic diversity. Four lecture and three laboratory hours per week. Prerequisite: 200.

303b—3 EVOLUTION. Evolutionary change including population genetics, ecological factors, selection, and speciation. Three lecture hours per week. Prerequisite: 200.

304a—5 INTRODUCTION TO 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. Prerequisite: 200.

304b—3 MEDICAL MICROBIOLOGY. Cultural and immunological properties of medically important bacteria and viruses and their epidemiology. Concepts of pathogenicity, antibiotic action, and drug resistance. Three lectures per week. Prerequisite: 304a.

304c—3 MEDICAL MICROBIOLOGY LABORATORY. Methods for isolating pathogenic bacteria and determining their significant properties and immunological features. Six laboratory hours per week. Prerequisite: 304b or concurrent enrollment.

312—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 and one three-hour lab per week. Prerequisite: (a) college chemistry; (b) 312a.

315a—3 EMBRYOLOGY. Morphogenesis and differentiation in animals with emphasis on vertebrates. Three lecture hours per week. Prerequisite: 302a.

315b—2 EMBRYOLOGY LABORATORY. Emphasis on embryology of vertebrate forms. Two laboratory hours per week. Prerequisite: concurrent enrollment in 315a.

325—4 BASIC ECOLOGICAL PRINCIPLES AND CONCEPTS. The scope of ecology, population ecology, models of population growth, competition, predation, diversity and stability of ecosystems, community structure, ecological energetics. Prerequisite: 302a or c.

400—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. Prerequisites: 303a, Chemistry 305a,b or Chemistry 341a,b.

401—2 EXPERIMENTAL BIOCHEMISTRY. (Cross-listed with Chemistry 455.) A laboratory course in biochemistry designed to teach biochemical techniques relating to carbohydrates, lipids, proteins, and nucleic acids. Prerequisite: 301e or Chemistry 451a.

402a,b—6 (3,3) MOLECULAR BIOLOGY LABORATORY. A two-quarter laboratory course in molecular biology, including experiments in biochemistry, cell biology, and microbial physi-

ogy. Two three-hour labs and one discussion hour per week. Prerequisites: 301a or 301e or 400a or 404, 402a or equivalent.

404a—3 MICROBIAL PHYSIOLOGY. Bacterial growth, biochemical and genetic regulation of metabolism, effects of the physical and chemical environment. Three lecture hours per week. Prerequisites: 301a, 304a, Chemistry 305b.

405—4 TECHNIQUES IN CELL AND TISSUE CULTURE. Principles, methods and application of eukaryotic cell and tissue culture. Growth, behavior, differentiation and metabolism of cells in culture. One hour instruction, six hours laboratory work per week. Prerequisites: senior standing, consent of instructor.

406a—3 CELL ORGANELLES AND INCLUSIONS. The function, structure, and formation of selected organelles and inclusions of eucaryotic cells. Current literature is covered in some detail and discussion sessions are held. Three hours lecture per week. Prerequisite: 301a, 301b, or biochemistry.

407—5 (3,2) ELECTRON MICROSCOPY. (a) Theory, demonstration, exercises and review; two lecture hours and one demonstration hour per week. (b) Laboratory; six laboratory hours per week. Enrollment limited to number of lab spaces available. Prerequisite for a: junior standing; for b: concurrent or recent enrollment in 407a, consent of instructor.

409—3 SCANNING ELECTRON MICROSCOPY. Principles, techniques and applications of electron microscopy with major emphasis on scanning electron microscopy. (a) Two lectures per week. (b) Three hours laboratory per week. Enrollment limited to ten students. Prerequisite: consent of instructor.

410—4 ADVANCED GENETICS. A study of quantitative inheritance, chromosomal evolution and organization, the regulation of gene action, and radiation genetics. Three lectures and one laboratory per week. Prerequisites: 303a, GSM 244.

411—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. Three lecture hours per week. Prerequisite: 303a.

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.

413—3 MICROBIAL GENETICS. A study of gene action in microorganisms including such topics as the genetic code, the 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: 301a, 303a, 304a.

416—3 ABNORMAL EMBRYONIC DEVELOPMENT. A survey of abnormal development in the human embryo, its nature, genetic and environmental causes, and prognosis. Three lecture hours per week. Prerequisite: 315a or equivalent.

419a—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: 302c.

419b—1 LABORATORY IN PLANTS AND ENVIRONMENT. Experiments and field problems in studying environmental and plant relationships. Prerequisite: 419a or concurrent enrollment.

420a—3 PLANT COMMUNITIES. A study of the 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 are stressed. Three lectures per week. Prerequisite: 303c.

420b—1 LABORATORY IN PLANT COMMUNITIES. Experiments and field problems in studying plant communities and succession. Prerequisite: 420a or concurrent enrollment.

421—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, especially as sources of food, shelter, clothing, drugs, and industrial raw materials; current problems of agriculture, plant industry, and medicine; the use and conservation of natural plant resources. Prerequisite: 302c or GSM 232.

422—4 SYSTEMS ECOLOGY. A survey of theoretical models and quantitative methods in population and ecosystem ecology. Three lectures and one laboratory per week. Prerequisites: 303c, statistics.

423—4 PRINCIPLES OF PARASITISM. Principles dealing with parasitic relationships. Study of 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: 302a.

425—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 lab per week. Weekend field trips may be required. Prerequisite: 325 or equivalent.

426—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 lab per week. Weekend field trips may be required. Prerequisite: 325 or equivalent.

430—4 ENVIRONMENTAL MICROBIOLOGY. An examination of the ecological interrelation between microbes and animal and plant life, and the interaction of microorganisms with our terrestrial and aquatic environment. Three lectures and one laboratory per week. Prerequisite: 304a or consent of instructor.

431—4 LIMNOLOGY. Ecological principles of aquatic habitats as exemplified by the lakes and streams of southern Illinois. Cost of field trips may be \$10-\$25 per student. Two lectures and two laboratories per week. Prerequisites: 302a, 302c, 303c.

435—4 ETHOLOGY. A survey of animal interactions and the response of animals to environmental stimuli. Three lectures and one laboratory per week. Prerequisite: 302a.

436—3 ECOLOGY AND MAN. A study of 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: 303c.

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 lecture hours per week. Prerequisites: organic chemistry and 302d or 312.

442—1 MAMMALIAN PHYSIOLOGY LABORATORY. Selected experiments with mammals including man. One three-hour laboratory per week. Prerequisite: concurrent enrollment in 441.

443b—1 LABORATORY IN ENVIRONMENTAL PHYSIOLOGY. Experiments dealing with physiological responses of animals to environmental variables. Prerequisite: 443a or concurrent enrollment.

444b—1 LABORATORY IN INTEGRATIVE PHYSIOLOGY. Experiments dealing with integrative role of the nervous system. Prerequisite: 444a or concurrent enrollment.

445—4 (3,1) 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. (a) Lecture, (b) Laboratory. Prerequisites: (a) 301a or consent of instructor; (b) concurrent enrollment in a, consent of instructor.

446—2 BIOCHEMICAL ASPECTS OF HORMONE REGULATION OF METABOLISM. (Cross-listed with Dental School Courses DBBC 791 and DMBC 811.) Designed to build upon the foundation laid in a basic course in biochemistry. Hormone regulation mechanisms at the molecular level. Prerequisite: 301e or Chemistry 451a,b, or DSSS 701 or Biology 301a.

447—4 TOPICS IN PLANT PHYSIOLOGY. Photosynthesis, mineral nutrition of plants, water regime, growth and movement of plants. Two lectures and two laboratories per week. Prerequisite: 302c, Chemistry 125b.

455—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: 302c.

456—2 PLANT MICROTECHNIQUE. Principles and techniques of preparing plant tissues for

microscopic study. Four hours of laboratory per week. Prerequisite: 302c, 455, or consent of instructor.

458—5 FUNCTIONAL MORPHOLOGY OF VERTEBRATES. The phylogenetic approach to comparative form, function, and development of vertebrate organisms. Two lectures and three laboratories per week. Prerequisite: 302a.

465a—4 BASIC CONCEPTS IN IMMUNOLOGY. An exposition of basic concepts in immunology and their clinical applications including: development of the immune systems; cellular mechanisms of immune response; humoral antibodies; mediators and effectors of immunity; pathogenetic mechanisms involving immunologic factors, and some clinical applications of immunology in prophylaxis and in therapy. Prerequisites: 301a, 303a, 304a (or equivalent) or a course in biochemistry.

465b—3 BASIC PROCEDURES IN IMMUNOCHEMISTRY. Introduction to some frequently occurring problems in the three major areas of the immunochemistry of natural products including exercises on the: isolation of materials, chemical analysis of the constituents and their structure, and assays of some important immunological activities. Two three-hour lab sessions per week plus a one-hour conference period. Prerequisites: 465a, consent of instructor.

470—4 FIELD BOTANY. Taxonomy, natural history, and distribution of local plants. Two lectures and two laboratories per week. Field trips cost \$10-\$25 per student. Prerequisite: 302c.

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: 302c or consent of instructor.

479—1 to 16 TROPICAL STUDIES. Courses taken in the tropics under the auspices of Associated Universities for International Education. May be repeated. Prerequisite: consent of department chairman.

480—4 FIELD ZOOLOGY. Taxonomy, natural history, and distribution of local animals. Two lectures and two laboratories per week. Field trips cost \$10-\$25 per student. Prerequisite: 302a.

483—5 PRINCIPLES OF ENTOMOLOGY. A study of the principles of insect morphology, physiology, development, systematics, ecology, and pathology. Three one-hour lectures, two three-hour laboratories per week. Prerequisite: 302a.

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: 302a 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. Prerequisite: 302a,c or consent of instructor.

487—4 ORNITHOLOGY. Natural history, relationships, behavioral ecology, and evolution of birds. Saturday field trips required. Prerequisite: 302a.

488—4 MAMMALOLOGY. Taxonomy, natural history, and evolution of mammals. Two lectures and two laboratories per week. Prerequisite: 302a.

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. Three lectures per week. Prerequisite: 302a.

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 secondary concentration in biology. May be repeated for total of 8 hours credit. Not available 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 secondary concentration in biology. Not available for graduate credit. Prerequisites: senior standing, consent of instructor.

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 of high school chemistry. Grades are Pass or No Credit. 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—11 (4,4,3) CHEMICAL STRUCTURE AND DYNAMICS. University-level treatment of modern chemistry-atomic structure, molecular bonding, and structure. Basic principles governing chemical change and equilibrium. (a,b) four lecture hours per week. (c) three 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—4 (1,1,2) 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) one three-hour laboratory per week; (c) two three-hour laboratories 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.

235—5 ANALYTICAL CHEMISTRY. Theories and methods of volumetric, gravimetric and spectrophotometric analysis. Three lectures and two three-hour laboratories per week. Prerequisites: 125c, 126c.

261—3 CHEMICAL ENERGETICS AND KINETICS. Introduction to the principles of chemical thermodynamics, kinetics, and spectroscopy. Three lecture hours per week. Prerequisites: 125c, concurrent enrollment in Mathematics 150a.

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: 125c.

341—12 (4,4,4) 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, one discussion hour per week. Prerequisite: 125c.

345—7 (2,2,3) ORGANIC CHEMISTRY LABORATORY. (a,b) Introduction to organic synthesis and the techniques for determining physical and chemical properties of organic systems. Two three-hour laboratories per week. (c) Organic Qualitative Analysis. A systematic study of the chemical, physical and spectroscopic properties of organic compounds and a logical use of the study for determining organic chemical structure. One lecture hour and two three-hour laboratories per week. Prerequisites for a: 305a or 341a; for b: 345a and either 305a or 341a; for c: 341, 345a,b, 305.

361—12 (4,4,4) 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, one discussion hour per week. Prerequisites: (a) 125c, 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) 345a, 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 chairman.

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 6 SPECIAL TOPICS IN INORGANIC CHEMISTRY. The topic to be covered is announced by the faculty. Prerequisite: consent of instructor.

432—4 INSTRUMENTAL ANALYTICAL MEASUREMENTS. Theory and practice of instrumental analytical measurements, including spectrophotometric, electro-analytical, and chromatographic methods. Two lecture and six laboratory hours per week. Prerequisite: 361b or c or concurrent enrollment.

439—2 to 6 SPECIAL TOPICS IN ANALYTICAL CHEMISTRY. The topic to be covered is announced by the faculty. 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: 341c 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: 341c.

449—2 to 6 SPECIAL TOPICS IN ORGANIC CHEMISTRY. The topic to be covered is announced by the faculty. 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: (a) 341c; (b) 451a; (c) 341c or equivalent, 451b.

459—2 to 6 SPECIAL TOPICS IN BIOCHEMISTRY. The topic to be covered is announced by the faculty. Prerequisite: consent of instructor.

460—5 PHYSICAL CHEMISTRY, PREPROFESSIONAL. For minors in chemistry and pre-professional 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. Prerequisites: 125c, 305c, or 341c, one year of physics, consent of instructor.

490—2 CHEMICAL LITERATURE. A study description of the various sources of chemical information and the techniques for carrying out literature searches. Two lecture hours per week. Prerequisites: 125c, 305c or 341c, reading knowledge of German or consent of instructor.

496—2 to 6 CHEMICAL PROBLEMS. Investigations of chemical problems under the direction of a staff member. Prerequisites: senior standing, major in chemistry with 4.0 average, consent of department chairman.

CONSTRUCTION

101—1 INTRODUCTION TO CONSTRUCTION. An introduction to the construction industry, its history and its role in today's society.

102—4 GRAPHICAL AND 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-condition 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 elements including beams, columns, slabs and footings. 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 (1,1) JUNIOR SEMINAR I, II. Case studies of electrical and mechanical systems interfacing. Statistical considerations for records. Computer applications. Guest lecturers from the construction industry and allied fields. Prerequisite: junior standing.

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.

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.

475a,b—2 (1,1) SENIOR SEMINAR I, II. Record keeping, labor contracts, zoning regulations, building permits, and contractor's office. Guest lecturers from construction industry and allied fields. Prerequisite: senior standing.

ENGINEERING AND TECHNOLOGY

101—6 (3,3) ENGINEERING GRAPHICS. (a) Principles of graphic communications. Sketching for shape description, pictorial projection, multiviews, various types of sectional views, auxiliary views, geometric construction. (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—1 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 Engineering Department. Team-taught by members of Department of Engineering with invited lectures from industry and other departments. Pass-No Credit grading only.

200—9 (3,3,3) CIRCUIT ANALYSIS. Required core curriculum course for electronic engineering concentrations. Integrated study of lumped element electric circuits in DC, sinusoidal steady state, and transient modes. Emphasis on analysis techniques including those suitable for digital computer implementation. Graphical, linear incremental modeling, convolution, and state space approaches as well as classical and transform methods for linear time-invariant circuits. Singularity functions, network theorems, and two port analysis. Computer analysis of circuits using ECAP. Must be taken in sequence. Prerequisites: 210, Mathematics 260a or concurrent enrollment

201—2 CIRCUIT ANALYSIS LABORATORY. Laboratory experiments exemplify the material covered in 200. Laboratory procedures, techniques of measurement, and report writing are stressed. Prerequisites: GSK 102, concurrent enrollment in 200c.

210—4 ENGINEERING PROBLEM SOLVING TECHNIQUE. Engineering computation techniques including introduction to mechanical aids such as slide rule, desk calculators, mini-computers, time-sharing, and computer center services. Complex number manipulations, logarithms, functional notation, graphs, roots of equations, simultaneous equations, and computer routines associated with all the presented topics. Prerequisite: concurrent enrollment in Mathematics 150a.

220—3 ELECTRICAL CIRCUITS. DC and AC electrical circuits, including network models, Kirchhoff's laws, mesh current equations, superposition theorem, phasors, rms values, AC power, and the Fourier Series. Not for electronic engineering concentrations. Prerequisites: Mathematics 150b, concurrent enrollment in 221.

221—1 ELECTRICAL CIRCUITS LABORATORY. Laboratory study of DC and AC circuits, illustrating principles discussed in 220. Prerequisite: concurrent enrollment in 220.

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.

260—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. Vector algebra used throughout. (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: 210, 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, 210.

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—3 THERMODYNAMICS. Elements of classical thermodynamics. Laws of thermodynamics and applications to open and closed systems. Introduction to statistical thermodynamics and its relationship to macroscopic properties of matter and transformation of energy. Prerequisites: Mathematics 260b, Physics 211b.

301—3 (1,1,1) JUNIOR ELECTRONIC 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: 200c, 201.

313—4 SURVEY OF ENVIRONMENTAL ENGINEERING. A survey of environmental problems, their causes and effects, and methods of solution. Emphasis on pollution control, air quality, water quality, and solid waste disposal. Environmental engineering principles and methodology. Not for urban and environmental engineering concentrations. Prerequisite: junior standing or consent of instructor.

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.

315—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. Prerequisite: 314.

316—4 HYDRAULICS AND HYDROLOGY. Development of hydrological principles and their engineering applications, with an introduction to hydraulics of open channel and closed conduit flows. Statistical analysis of rainfall-runoff relationships, storm frequencies, and flood flows; surface water impoundments, drainage systems, pipeline networks, and groundwater systems. Prerequisite: Physics 211b.

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: 220.

321—1 ELECTRONIC CIRCUITS LABORATORY. Laboratory study of active networks illustrating principles discussed in 320. Prerequisites: 220 concurrent enrollment in 320.

322—3 ELECTRICAL MACHINES, CONTROL AND POWER. Three-phase power distribution, transformers, induction, synchronous and d/c motors, their operation and characteristics and control. Prerequisites: 220, 221.

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—4 LINEAR ELECTRONIC CIRCUITS. Linear electronic circuits using transistors, FET's, and vacuum tubes. Load lines and biasing of active devices. Feedback and its effects on circuits. Small signal amplifiers. Integrated circuits. Frequency response. Prerequisites: 200c, 201 or equivalent.

327—4 PULSE AND DIGITAL CIRCUITS. Pulse and digital electronic circuits. Pulse transformers. Switching characteristics of active devices. Transistor switches. Comparators, clampers, and clippers. Logic circuits. Registers. Multivibrators. Prerequisite: 326.

330—8 (4,4) ENGINEERING ELECTROMAGNETICS. (a) Static electric and magnetic fields theory including field distributions and experimental field mapping methods. The formulation of Maxwell's equations in time-varying form and the retarded potentials. (b) Maxwell's equations for time-varying fields, derivation and solution of the wave equation field theory approach to transmission lines. Steady state solutions for the loss-less transmission line, the Smith Chart, lossy transmission lines. Pulse propagation on transmission lines transient response of lossy lines. Must be taken in sequence. Prerequisites: Mathematics 260c, Physics 211c.

332—4 MANUFACTURING TECHNIQUES AND SYSTEMS. Focus upon industrial manufacturing methods and procedures and the relationships among components in the manufacturing process. Emphasis on the integration of components in the design of a production facility.

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 and use of automated structural analysis programs. Must be taken in sequence. Prerequisites: 101a, 210, 270.

341—4 PRINCIPLES OF ELECTRO-MECHANICAL ENERGY CONVERSION. An introduction to the basic principles of electro-mechanical energy conversion. Elementary lumped circuit

modeling of electrical machines including DC motors and generators, AC motors and alternators. Prerequisite: 330a.

351—4 LINEAR SYSTEMS ANALYSIS I. A study of the methods available for analysis of the input-output properties of linear systems. Frequency domain analysis of continuous time systems. Time and frequency domain analysis of discrete time systems. An introduction to digital signal processing. Prerequisites: 200, Mathematics 260.

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—3 LINEAR SYSTEMS ANALYSIS II. Introduction to the principles of simulation of linear systems on an Analog Computer. Introduction to general methods for study of input-output relations of systems. State space representation of continuous systems. State transition matrices and complete solution of linear continuous systems; controllability and observability; machine computation and simulation. Prerequisites: 351, Mathematics 305.

360—4 HUMAN FACTORS. A study of human factors and their impact upon the design of industrial processes. Emphasis on designing production systems to meet the physiological and psychological needs of those involved in the production process.

363—3 SURVEYING II. Errors and calibration concepts, route surveying, triangulation, building construction surveying and introduction to photogrammetry. Laboratory included. Prerequisite: 263.

370—4 ENGINEERING MATERIALS. Quantative and qualitative behavior of materials as related to the physical and chemical structure of solids. Laboratory determination of mechanical properties of materials. Prerequisite: 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). Prerequisite: 263.

380—12 (4,4,4) ENVIRONMENTAL ENGINEERING I, II, III. (a) Water Supply and Treatment. Planning and design of water supplies, distribution systems, and treatment systems. (b) Environmental Unit Operations. Selected topics from analytical and physical chemistry as applied to examination and treatment of water and waste water. Adsorption, extraction, coagulation, basic principles of chemical reactors. (c) Waste Water and Solid Wastes. Primary, secondary, and tertiary treatment of waste water. Solid waste disposal by incineration, sanitary landfills, wet combustion. Waste water treatment plant design, construction, and finance. Laboratory included. Must be taken in sequence, or have consent of instructor. Prerequisite: (a) 316; (b) Chemistry 125b; (c) 380a,b.

395—2 to 8 READINGS IN ENGINEERING. Supervised reading in selected subjects. Prerequisites: junior or senior standing, concentration in engineering, consent of department chairman.

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. Must be taken in sequence. Prerequisite: 301c.

402—4 ELECTRONIC PROPERTIES OF MATERIALS. Introduction to the physical interpretation of the dielectric, magnetic, conductive and superconductive properties of materials. These properties are studied in the context of engineering applications of these materials. Prerequisites: 330a, Physics 302a.

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. Prerequisite: Mathematics 480b.

421—1 FLUID DYNAMICS LABORATORY. Laboratory experiments to study the flow of fluids in conduits and in open channels. Prerequisite: 316.

435—4 POWER SYSTEM ANALYSIS. The study of the fundamental concepts of power systems. Operational consideration, basic component model representation, steady state performance and operating strategies of power systems. A systems approach is used with emphasis on overall operational characteristics. 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. Prerequisite: 340a.

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. Prerequisite: 340a.

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. Prerequisite: senior standing or consent of chairman.

444—3 ELECTRICAL ENGINEERING DESIGN. Elements of design in electrical engineering. Completion of several "paper designs" selected from the various areas of electrical engineering. Final examination consists of design of a project selected by student with approval of engineering faculty, this design to be used as the basis of the project in 445. Prerequisite: senior standing.

445—2 ELECTRICAL ENGINEERING DESIGN LABORATORY. The design generated for final examination in 444 is constructed and tested. Student works in consultation with one of members of engineering faculty. For certain projects, computer simulation may be used to supplement or even replace construction and testing of the design. Prerequisite: 444.

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"). Prerequisite: consent of instructor.

452—4 DESIGN OF INTEGRATED PRODUCTION SYSTEMS. Emphasis on integrating available resources to achieve an efficient production system. Problems in plant layout and materials handling are stressed. Prerequisite: 472.

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. Prerequisites: 210 or Mathematics 272, Mathematics 260c.

460—4 OPERATIONS RESEARCH — STOCHASTIC MODELS. (Same as Mathematics 441.) Probabilistic models, elementary queuing theory with single or multiple server systems, use of queues in the facility designs, elementary decision theory, Markov processes and decision making. Prerequisites: 210 or Mathematics 272, Mathematics 260c, Mathematics 380 or Mathematics 480a.

463—4 TRANSPORTATION SITE SELECTION. Engineering techniques in transportation facilities site selection. An introduction to the use of air photos to identify and evaluate engineering controls and constraints in site selection. Laboratory included. Prerequisites: 363, 376.

465—4 CONTROL SYSTEMS. Principles of linear feedback control systems, using Root-Locus, Bode, and Nyquist methods. Study of performance characteristics — steady state, transient and stability with major emphasis on Root-Locus as analysis and synthesis tool. Basic ideas on system identification. Prerequisite: 353.

471—4 METHODS DESIGN AND WORK MEASUREMENT. (Same as Production 461.) 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 material are assigned. Prerequisite: upperclass standing.

472—4 PRODUCTION PLANNING AND CONTROL. (Same as Production 462.) 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.

473—4 ADVANCED PRODUCTION MANAGEMENT. (Same as Production 463.) Examines the operating decisions that confront the managerial and supervisory production personnel of large, medium, and small scale manufacturing firms using a variety of production processes. Emphasizes decision-making leading to the solution of production operating problems, and to the formulation of plans of action. Assigned cases provide a view of the types of decisions involved in planning, organizing, coordinating, integrating, and controlling resources so that production goals may be realized. Prerequisites: 471, 472.

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: 210 or Mathematics 272, Mathematics 260c, Mathematics 380 or Mathematics 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.

477—3 CONSTRUCTION ENGINEERING. Application of engineering principles to modern methods of construction; office and field procedures; construction materials; construction planning including elements of critical path scheduling. Linear programming, and computer methods for civil engineering, design, and simulation. Prerequisite: 314.

480—8 (4,4) INDUSTRIAL WASTE TREATMENT I, II. (a) Liquid and Solid Wastes. Problems arising from industrial water pollution and solid wastes, sources and characteristics of industrial wastes, effects on streams and other public waterways. Methods of treatment with specific applications to various industries, (b) Air Pollution. Basic principles of air pollution; causes, monitoring, and control. Monitoring equipment and networks. Control methods and equipment. Air pollution problems and technology as applied to various industries. Prerequisite: 380 or consent of instructor.

481—4 FUNCTIONAL ANALYSIS OF DIGITAL EQUIPMENT. Logic circuits including standard gates, function realization and minimization, and logic diagrams. Sequential circuits including transition tables and timing diagrams. Internal organization and function of typical computers and controllers including common peripherals such as I-O devices, secondary storage, and D-A and A-D converters. Prerequisite: 200 or 320.

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: 320 or equivalent.

483—4 DIGITAL PROCESSOR PROGRAMMING. Software requirements for general purpose, 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: 481.

485—4 COMMUNICATION THEORY I. Elements of communication systems, spectral representation of signals and noise, filters and filtering, signal-to-noise ratios, analog (linear and exponential) modulation, sampling theory, pulse modulation and multiplexing. Prerequisites: 352, 353.

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. Prerequisites: 270, 340b or equivalent.

490—4 MICROWAVE PRINCIPLES. An introduction to microwave principles beginning with Maxwell's equations. Plane wave propagation and reflections of waves at boundaries. The mathematical theory of waveguides both rectangular and circular. Resonant cavities, periodic structures, filters, and ferrite components. Prerequisites: 330b, 353.

ENVIRONMENTAL SYSTEMS TECHNOLOGY

101—2 INTRODUCTION TO ENVIRONMENTAL SYSTEMS TECHNOLOGY. An introduction to the problems identified with the technical, legal, economic, and regulatory aspects of water and air quality, water and air pollution and treatment, and solid waste management.

301—5 WATER QUALITY I. A study of water quality chemistry with particular emphasis on water and wastewater analysis, including nephelometric, titrimetric, and gravimetric procedures and measures of oxygen demand. Prerequisite: Chemistry 125c.

302—5 WATER QUALITY II. A continuation of water quality chemistry with emphasis on water and wastewater analysis, including colorimetry, instrumental analysis, and the chemistry of various important elements in water, such as nitrogen, phosphorous, and sulfur. Prerequisite: 301.

303—4 WASTEWATER TREATMENT. A study of primary and secondary wastewater treatment, including aspects of design, maintenance, and operation for the unit processes involved. Prerequisites: 301, concurrent enrollment in 302, Engineering 101a.

304—4 WATER PURIFICATION. A study of water purification processes, including aspects of design, maintenance and operation for the unit processes involved. Prerequisites: 101, 301, concurrent enrollment in 302.

320—4 BASIC HYDRAULICS. An understanding of practical design as it applies to the collection, treatment, and distribution of water and the collection and treatment of domestic and industrial wastewater. Prerequisite: Physics 206a.

330—4 AIR POLLUTION PRINCIPLES I. An introduction to the broad field of air pollution. Characteristic emissions from stationary and mobile sources, atmospheric dispersion and meteorological models, health and ecological effects, and methods of assessment.

390—3 to 6 SUPERVISED WORK EXPERIENCE. Supervised work experience with industries, municipalities, or some other water related organization. A range of experience related to course work. Prerequisites: 302, 303.

420—4 WATER POLLUTION. An investigation of the causes and effects of stream pollution, the mechanisms of stream self-purification, and nature's ecological balance in rivers and streams. Prerequisites: 302, 320 or equivalent.

430—4 AIR POLLUTION PRINCIPLES II. An understanding in the measurement and control of air pollution. Air quality standards, methods for evaluation of emissions from transportation vehicles, municipal incinerators and specific industries, and the legal and enforcement aspects of air pollution control. Prerequisites: 330, Chemistry 125, Physics 206 or equivalent.

440—4 ADVANCED TREATMENT OF WASTEWATER. A review of hydraulics, hydrological cycles, sewage systems, characteristics of sewage, sludge characteristics, digestion, chemical treatment of wastewater, and principles of biological treatment. Prerequisite: 303 or equivalent.

450—3 to 6 SPECIAL TOPICS. Advanced topics in water and wastewater processing. Prerequisite: consent of instructor.

460—4 INDUSTRIAL WASTE. A study of specific processes, operational characteristics and associated problems encountered in industrial waste treatment facilities, treatment of combined municipal and industrial water, and by-products recovery. Prerequisite: 303 or equivalent.

470—4 SOLID WASTE MANAGEMENT. A study of various aspects of solid waste management, including sources and characteristics of solid waste, methods of collection, legal aspects, and disposal methods such as incineration, sanitary landfill, composting, and recycling. Prerequisite: Physics 206 or equivalent.

MATHEMATICS, STATISTICS AND COMPUTER SCIENCE

100—3 ELEMENTARY MATHEMATICS. Basic arithmetical skills. Operations with whole numbers, fractions, decimals, percent. May not carry credit toward some degrees. Five contact hours per week. Graded on Pass/Fail basis only.

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: 101 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: six semesters of college prep math with a C average, satisfactory score on the ACT mathematics test.

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. Prerequisite for (a): 125.

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.

272—4 INTRODUCTION TO PROGRAMMING. Introduction to digital computers. Methods of describing programming problems. Designing programs. Fortran programming. Prerequisite: six semesters of college preparatory mathematics or knowledge of college algebra.

273—4 INTRODUCTION TO COMPUTER ORGANIZATION. Components of a computer system; computer arithmetic, addressing techniques, computer hardware; computer software. Prerequisite: 272.

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 INTRODUCTION TO COMBINATORIAL MATHEMATICS. Permutations and combinations; the inclusion exclusion principle; generating functions; introduction to graph theory. Prerequisites: 260a, 272, 321.

365—4 INTRODUCTION TO NUMERICAL ANALYSIS. Sources of error: round-off and truncation; roots of equations; numerical integration; ordinary differential equations; interpolation. Prerequisites: 260c, 272.

371—4 ADVANCED PROGRAMMING LANGUAGES. Basic features of PL/1; string-manipulation and list-processing languages; comparisons with Algol and Fortran; dynamic allocation and programmer-defined interrupts. Computer applications emphasized. Prerequisite: 272.

372—4 COMPUTER PROGRAMMING II. Continuation of 272. An introduction to simple data structures, recursion, storage management, internal sorting and searching methods, and applications such as string processing and lexical analysis. Prerequisite: 272.

373—4 ASSEMBLY LANGUAGE PROGRAMMING. Job control language; machine language; assembly language; assemblers. Prerequisite: 273.

374—4 INTRODUCTION TO LOGIC AND ALGORITHMS. Lattices; Boolean algebra; the propositional calculus; the first order predicate calculus; algorithms and computing machines. Prerequisite: 272.

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.

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 Mathematics 150b.

419—4 STOCHASTIC MODELING FOR THE ENVIRONMENTAL SCIENCES. Selected topics in probability and statistics; elements of queuing theory; stochastic simulation models; growth and population models; discrete simulation using GPSS. May not be taken for credit towards major or graduate concentration in mathematical studies. Prerequisite: 40 hours natural science, mathematics, or engineering, including Mathematics 150b.

420—6 (3,3) FUNDAMENTAL CONCEPTS OF ALGEBRA. An introduction to abstract algebraic structures; groups, rings, fields, and vector spaces. Must be taken in sequence. Prerequisite: 321 or consent of instructor.

421—9 (3,3,3) LINEAR ALGEBRA. A study of finite dimensional and multilinear vector spaces and linear mappings. Must be taken in sequence. Prerequisite: 321 or consent of instructor.

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—6 (3,3) AN INTRODUCTION TO TOPOLOGY. The elements of set theory, metric and topological spaces, separation axioms, connectedness, compactness, product and quotient topologies, locally compact spaces, complete metric spaces, and applications. Prerequisite: 260c or consent of instructor.

435—9 (3,3,3) FUNDAMENTAL CONCEPTS OF GEOMETRY I. An axiomatic study of plane Euclidean geometry by means of groups of transformations. Axioms, motions, groups, crystallographic groups, circles, metric geometry, similitude, hyperbolic geometry and elliptic geometry. Must be taken in sequence. Prerequisite: 321 or consent of instructor.

437—3 DIFFERENTIAL GEOMETRY. Curves and surfaces in Euclidean n -space. Intrinsic properties. Prerequisite: 260c or consent of instructor.

440—4 OPERATIONS RESEARCH — DETERMINISTIC MODELS. (See Engineering and Technology 458.)

441—4 OPERATIONS RESEARCH — STOCHASTIC MODELS. (See Engineering and Technology 460.)

442—4 OPERATIONS RESEARCH — SIMULATION. (See Engineering and Technology 474.)

450—9 (3,3,3) FUNDAMENTAL CONCEPTS OF ANALYSIS. The real number system, topology of \mathbb{R}^n , continuity and differentiability of functions from \mathbb{R}^m into \mathbb{R}^n , the Riemann integral, elementary analysis in normed linear spaces. Must be taken in sequence. Prerequisites: 260c, 321.

462—4 TRANSFORMS FOR APPLICATIONS. Fourier transforms, fast Fourier transforms, convolution and superposition integrals, applications to initial and boundary value problems, introduction to generalized functions. Prerequisite: 305.

463—9 (3,3,3) ADVANCED CALCULUS FOR APPLICATIONS. (a) 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. Prerequisites: 260, 305.

465—9 (3,3,3) 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, 272; (b) 305, 321, either 365 or 465a; (c) 465b.

470—4 DATA STRUCTURES. Static, semi-static, and dynamic structures. General vectors, arrays, and records. Self-describing records and array variability; stacks, queues, and deques. Linear linked lists; shared-element lists; trees and graphs. Logical and physical organization; accessing algorithms. Operations on lists; implementation algorithms. Searching and sorting. Storage management. Languages supporting list-processing facilities. Concepts applied in programming assignments. Prerequisites: 273, 371, 374.

472—7 (4,3) PROGRAMMING AND DESIGN TECHNIQUES. (a) History of programming; structured programming, team programming, programming testing and verification, decision tables, coroutines, recursive programming. (b) Systems development process, tools and guidelines for structured design, using structured design, related subjects. Prerequisite: 272, 371; or consent of instructor.

473—4 STRUCTURED COMPUTER ORGANIZATION. Introduction to virtual machines, machine language of CDC 6600 and PDP-11, microprogramming, operating system virtual machines, multi-level machines, multiprogramming and SPOOLING. Prerequisites: 373, 472a or concurrent enrollment.

474—6 (3,3) SWITCHING THEORY AND SEQUENTIAL MACHINES. Finite automata and sequential machines. Equivalence of states and machines; congruence, generalized and incomplete machines. Must be taken in sequence. Prerequisite: 323, 374, or consent of instructor.

475—9 (3,3,3) APPLICATIONS OF SYSTEMS DESIGN. (a) Background: advanced features of COBOL, guidelines to programming style in COBOL, data organization and access (sequential files, direct files, data base files), introduction to JCL. (b) Case study: examination of systems programs with attention to I/O specifications, hardware configurations systems flowcharts, documentation, utility programs, modularization, impact of systems alternatives. (c) Class project: given an information base and a project's goals, the class designs an implementing software system. Prerequisite: (a) COBOL; (b) 472a; (c) 472b.

476—6 (3,3) LANGUAGE TRANSLATION. Single- and multi-pass assemblers, interpreters, and compilers. Lexical and syntactic analysis. Table look-up and precedence schemes. Intermediate code. Object code generation. Run-time environment for nested and independent block structure; compile- and run-time structures; storage allocation. Concepts applied in programming projects. Must be taken in sequence and should be taken in consecutive quarters. Prerequisite: 470.

477—6 (3,3) OPERATING SYSTEMS. Introduction to operating systems, I/O and interrupt programming, memory protection, memory management, processor management, device management, information management, case studies. Prerequisite: 473.

478—6 (3,3) HEURISTIC PROGRAMMING AND ARTIFICIAL INTELLIGENCE. (a) Heuristic problem-solving methods with applications in decision making, theorem proving and game playing. (b) Survey of topics in artificial intelligence, complemented by a class project. Prerequisite: 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—3 APPLICATIONS OF STATISTICAL METHODS. Applications of the fundamental

concepts of statistics presented in 480. Selecting appropriate mathematical models, finding solutions to practical problems, and reporting the results; computer simulation to test procedures, and packaged programs to handle large amounts of data. Prerequisite: 480c or concurrent enrollment.

482—8 (4,4) LINEAR STATISTICAL MODELS FOR APPLICATIONS. Aspects of multivariate analysis, linear regression, analysis of variance and covariance, linear discriminant functions, 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 planes, 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—3 NONPARAMETRIC STATISTICS. Statistical inference using distribution free methods. Randomization, the sign test, Wilcoxon and Mann-Whitney tests, signed-rank tests, goodness-of-fit tests, independence, correlation, and regression. Prerequisite: 480b or consent of instructor.

495a-i—1 to 6 INDEPENDENT STUDY. Research and reading in a specific area of interest. (a) Algebra. (b) Geometry. (c) Analysis. (d) Probability and Statistics. (e) Mathematics Education. (f) Logic Foundations. (g) Topology. (h) Computer Science. (i) Operations Research. A total of 24 hours may be accumulated, not more than 6 in a single segment, not more than 12 in one quarter. Prerequisite: consent of adviser.

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. Pass-No Credit only. May be repeated for 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, potential. (c) Circuits, magnetic fields, electromagnetic waves, geometrical and physical optics. Must be taken in sequence. Prerequisite: (a) Mathematics 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 of a confined particle, the hydrogen atom, atomic theory, nuclear and

solid state physics. Must be taken in sequence. Prerequisites: (a) 211, Mathematics 260a; (b) 302a.

304—4 THERMODYNAMICS AND KINETIC THEORY. A macroscopic study of the thermal properties of matter and the laws of the thermodynamics. Kinetic theory and the distribution of molecular velocities. Transport phenomena. Prerequisites: 211b, Mathematics 260a.

306—4 ELEMENTARY HEALTH PHYSICS. An introductory health physics course for students in biology, nursing, pre-dentistry, pre-medicine, and other health related fields. What radiation is, how it interacts with matter, and how it is measured. Some of the harmful effects and beneficial uses of radiation. Ionizing and non-ionizing radiation. Prerequisite: 206 or GSM 101 or 102.

308—8 (4,4) INTRODUCTION TO CLASSICAL MECHANICS. Statics of a particle, of a rigid body, and of a flexible string; the principle 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; non-inertial reference frames; generalized coordinates, Lagrange's and Hamilton's equations of motion; vibrating systems, normal coordinates, and wave motion. Prerequisites: (a) 211a,b, Mathematics 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 anisotropic media; birefringence, optic axis, crystal optics, optical activity; theory of normal and anomalous dispersion scattering of light by particles; quantum optics, lasers. Prerequisites: 211, Mathematics 260a.

311—1 OPTICS LABORATORY. Advanced experiments in geometrical and physical optics. Two laboratory hours per week. Prerequisite: 310 or concurrent enrollment.

312—4 (2,2) INTERMEDIATE PHYSICS LABORATORY. Experiments in mechanics, heat, wave motion, light, electricity, magnetism, atomic, nuclear and solid state physics. Prerequisite: (a) 211; (b) 312a.

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. Four lecture hours per week. Prerequisites: 211, Mathematics 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 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—3 INTRODUCTION TO STATISTICAL MECHANICS. A brief treatment of the kinetic theory of gases; introduction of phase spaces and ensemble theory. Shows the connection between mechanical and thermodynamic concepts and obtains a statistical interpretation of thermodynamic processes. Prerequisite: 304, 308, or consent of instructor.

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, Mathematics 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, Mathematics 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 total of 4 hours credit. Prerequisites: 302b, 312b.

419—8 (4,4) 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. (b) Treatment of inhomogeneous equations and the comparison of the eigenvalue problem in a matrix representation with that in the function space representations. Prerequisites: 302, Mathematics 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.

435—3 PLASMA PHYSICS. Basic equations and conservation laws; first order orbit theory with applications to static and dynamic problems; small amplitude plasma waves; hydromagnetic shocks; collision effects; diffusion across a magnetic field; stability; coupling of plasmas and radiation. Prerequisite: 405.

445—4 SOLID STATE METHODS. Simple lattice theory, elementary theory of phonons, x-ray and neutron diffraction, x-ray fluorescence analysis, neutron activation analysis, electron paramagnetic resonance, ferro, antiferro and ferrimagnetism, ferroelectrics, piezoelectricity, cyclotron resonance, Mossbauer Effect, electron microscopes, nuclear magnetic resonance. Prerequisite: 302.

450—4 INTRODUCTION TO SOLID-STATE PHYSICS. A study of the fundamentals of solid-state physics including classification of solids, interatomic and intermolecular forces, lattice energies, specific heats, lattice dynamics, free electron theory of metals, lattice defects, color centers, luminescence, magnetic materials, radiation damage, transport in ionic crystals. Fermi-Dirac statistics, Fermi distribution, and semiconductors. Prerequisites: 302, 405.

480—2 to 4 SELECTED TOPICS IN PHYSICS. Topics of special interest. May be repeated to 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.

402—3 to 6 MODERN PHYSICS. The development of physics in this century. For teachers of the physical sciences. Emphasis on the phenomena which led to the formulation of quantum theory in the twenties. A qualitative discussion of atomic and nuclear physics. May be repeated to maximum of 10 hours. Prerequisites: 401, Physics 206.

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 maximum of 10 hours.

412—3 to 6 PHYSICAL SCIENCE CURRICULUM (ELEMENTARY LEVEL). A study of the elementary school physical science curriculum and instructional methods including SCIS, ESS, SAPA, etc. Evaluation of curricular materials and specialized materials. May be repeated to maximum of 10 hours. Prerequisite: 401 or Physics 206.

415—3 to 6 PHYSICAL SCIENCE CURRICULUM (SECONDARY LEVEL). A study of the secondary school physical science curriculum and instructional methods including IIS-IPS, PSII, ISCS, Project Physics, etc. May be repeated to maximum of 10 hours.

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 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—5 (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. Prerequisite: consent of chairman 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 chairman of Department of Chemistry.

480—3 to 6 SPECIAL TOPICS IN PHYSICAL SCIENCE TEACHING. Topics of special interest in teaching of science not included in other courses. Combined lecture and/or laboratory format. May be repeated to maximum of 10 hours. Prerequisite: consent of department chairman.

SCHOOL OF SCIENCE AND TECHNOLOGY FACULTY

Hadi H. Aly, Ph.D., Professor of Physics

Thomas P. Anderson, Ph.D., Dean of School and Professor of Engineering

Patrick Argos, Ph.D., Associate Professor of Physics

George Arnold, D.Sc., Associate Professor of Engineering

Ralph W. Axtell, Ph.D., Professor of Biological Sciences

Annette Baich, Ph.D., Professor of Biological Sciences

Ralph L. Bain, Ph.D., Chairman and Professor of Chemistry

Thomas O. Baldwin, Ph.D., Professor of Physics

Marinus P. Bardolph, Ph.D., Associate Professor of Chemistry

John D. Bauer, M.D., Adjunct Professor of Medical Technology

Harlan H. Bengtson, Ph.D., Associate Professor of Engineering

William C. Bennewitz, Ph.D., Professor of Mathematics, Statistics and Computer Science

Myron Bishop, M.S., Emeritus Associate Professor of Engineering

Stan J. Bobowski, M.D., Adjunct Professor of Medical Technology

Richard R. Boedeker, Ph.D., Chairman and Professor of Physics

Raghupathy Bollini, Ph.D., Associate Professor of Engineering

Thomas D. Bouman, Ph.D., Professor of Chemistry

Arthur J. Braundmeier, Ph.D., Associate Professor of Physics

Harold E. Broadbooks, Ph.D., Professor of Biological Sciences

Julius Brown, D.Sc., Professor of Engineering

Richard B. Brugam, Ph.D., Assistant Professor of Biological Sciences

Ronald C. Bruno, Ph.D., Associate Professor of Physics

Norma Buckles, M.T. (ASCP), Adjunct Instructor in Medical Technology

Kermit G. Clemans, Ph.D., Professor of Mathematics, Statistics and Computer Science

Myra D. Coggeshall, M.T. (ASCP), Adjunct Instructor of Medical Technology

Daniel N. Cote, M.S., Associate Professor of Engineering

Norman S. Davis, Ph.D., Associate Professor of Biological Sciences

Beverly Douglas, M.S., Lecturer of Mathematics, Statistics and Computer Science

Henry D. Drew, Ph.D., Associate Professor of Chemistry

Garret DuBois, Ph.D., Visiting Assistant Professor of Chemistry

Harry Duffey, D.Sc., Professor of Engineering

Douglas Eder, Ph.D., Associate Professor of Biological Sciences

Florence A. Fanning, M.A., Emerita Associate Professor of Mathematics, Statistics and Computer Science

F. Henry Firsching, Ph.D., Professor of Chemistry

Clifford Fore, B.S., Assistant Professor of Engineering

Gopal Gaonkar, D.Sc., Research Professor of Mathematics, Statistics and Computer Science

Arthur O. Garder, Ph.D., Professor of Mathematics, Statistics and Computer Science

Mary L. Gavin, B.S., Adjunct Instructor of Medical Technology

Arjun Godhwani, Ph.D., Associate Professor of Engineering

Paul E. Goldenbaum, Ph.D., Associate Professor of Biological Sciences

Ray C. Gwillim, M.S., Emeritus Associate Professor of Mathematics, Statistics and Computer Science

M. A. Hakeem, Ph.D., Professor of Physics

Dennis Hall, Ph.D., Visiting Assistant Professor of Physics

Stephen K. Hall, Ph.D., Associate Professor of Chemistry

Steven J. Hanna, Ph.D., Professor of Engineering

Jimmie R. Hattemer, Ph.D., Associate Professor of Mathematics, Statistics and Computer Science

Marilyn D. Hauschild, M.S., Instructor of Mathematics, Statistics and Computer Science

Welland A. Hause, M.D., Adjunct Professor of Medical Technology

George A. Henderson, Ph.D., Professor of Physics

Roger C. Hill, Ph.D., Associate Professor of Physics

Chung-wu Ho, Ph.D., Professor of Mathematics, Statistics and Computer Science

William P. Hoffman, B.S., Adjunct Instructor of Medical Technology

Lyman S. Holden, Ph.D., Associate Professor of Mathematics, Statistics and Computer Science

William E. Hord, Ph.D., Chairman and Professor of Engineering

Joel D. Isaacson, Ph.D., Professor of Mathematics, Statistics and Computer Science

Emil F. Jason, Ph.D., Professor of Chemistry

Leonard C. Jones, Ph.D., Professor of Engineering

Ik-Ju Kang, Ph.D., Professor of Physics

Richard C. Keating, Ph.D., Professor of Biological Sciences

Irving J. Kessler, Ph.D., Professor of Mathematics, Statistics and Computer Science

Panos Kokoropoulos, Ph.D., Associate Professor of Engineering

Alfred Korn, D.Sc., Professor of Engineering

Thoddi C. T. Kotiah, Ph.D., Associate Professor of Mathematics, Statistics and Computer Science

Frank B. Kulfinski, Ph.D., Professor of Biological Sciences

- Marion L. Kumler, Ph.D., Professor of Biological Sciences
Rudolf Kurth, Ph.D., Professor of Mathematics, Statistics and Computer Science
Michael S. Landis, Ph.D., Assistant Professor of Chemistry
Victor Lary, M.D., Adjunct Professor of Medical Technology
Mary Patricia Laughlin, B.S., Adjunct Instructor of Medical Technology
Earl E. Lazerson, M.A., Vice President and Provost and Professor of Mathematics, Statistics and Computer Science
Charlotte O. Lee, Ph.D., Associate Professor of Chemistry
Michael R. Levy, Ph.D., Chairman and Professor of Biological Sciences
Andrew O. Lindstrum, Ph.D., Professor of Mathematics, Statistics and Computer Science
Frank S. Little, Ph.D., Associate Professor of Mathematics, Statistics and Computer Science
Marilynn Livingston, Ph.D., Professor of Mathematics, Statistics and Computer Science
John H. Matlock, Ph.D., Adjunct Assistant Professor of Physics
Michael S. Matta, Ph.D., Professor of Chemistry
Laurence R. McAneny, Ph.D., Professor of Physics
John S. Meyer, M.D., Adjunct Professor of Medical Technology
Donal G. Myer, Ph.D., Professor of Biological Sciences
P. S. Nair, Ph.D., Associate Professor of Biological Sciences
Satish Natak, Ph.D., Associate Professor of Engineering
Mary E. Olvey, M.S., Adjunct Instructor of Medical Technology
Martin Osborne, Ph.D., Assistant Professor of Mathematics, Statistics and Computer Science
Clellie C. Oursler, Ph.D., Professor of Mathematics, Statistics and Computer Science
Alexander Pal, Ph.D., Associate Professor of Mathematics, Statistics and Computer Science
Rao Palamand, Ph.D., Adjunct Professor of Chemistry
Judith Anne Palermo, M.Ed., Adjunct Instructor of Medical Technology
Nancy R. Parker, Ph.D., Associate Professor of Biological Sciences
Richard B. Parker, Ph.D., Associate Professor of Biological Sciences
Irwin H. Parrill, Ph.D., Emeritus Professor of Chemistry
Timothy B. Patrick, Ph.D., Professor of Chemistry
Robert N. Pendergrass, Ph.D., Professor of Mathematics, Statistics and Computer Science
Paul H. Phillips, Ph.D., Associate Professor of Mathematics, Statistics and Computer Science
Rex Pierce, B.S., Instructor of Engineering
Kenneth Polakoski, Ph.D., Adjunct Assistant Professor of Biological Sciences
David G. Rands, Ph.D., Professor of Chemistry
Kermit O. Ratzlaff, Ph.D., Associate Professor of Biological Sciences
Thomas Ruh, Ph.D., Adjunct Assistant Professor of Biological Sciences
Robert B. Rutledge, Ph.D., Professor of Mathematics, Statistics and Computer Science
Steven G. Sanders, Ph.D., Professor of Physics

- George Schroeder, Ph.D., Associate Professor of Engineering
William C. Shaw, Ph.D., Emeritus Professor of Physics
Russell Soloman, B.S., Adjunct Professor of Engineering
Peter John Soto, M.S., Adjunct Professor of Medical Technology
John A. Spencer, Ph.D., Associate Professor of Chemistry
David I. Steinberg, D.Sc., Professor of Mathematics, Statistics and Computer Science
G. Gregory Stephen, Ph.D., Associate Professor of Mathematics, Statistics and Computer Science
Eric A. Sturley, Ed.D., Professor of Mathematics, Statistics and Computer Science
P. N. Swamy, Ph.D., Professor of Physics
Frederick Sweet, Ph.D., Adjunct Assistant Professor of Biological Sciences
Jamie E. Thomerson, Ph.D., Professor of Biological Sciences
Joyce A. Torrey, M.Ed., Adjunct Assistant Professor of Medical Technology
Edward J. Van Vooren, M.S., Visiting Assistant Professor of Physics
Nadine L. Verderber, Ph.D., Assistant Professor of Mathematics, Statistics and Computer Science
Lionel K. Walford, Ph.D., Professor of Physics
Norval D. Wallace, Ph.D., Professor of Mathematics, Statistics and Computer Science
Walter Weist, Ph.D., Adjunct Professor of Biological Sciences
J. Edmund White, Ph.D., Professor of Chemistry
Antony C. Wilbraham, Res. Dipl. Associate Professor of Chemistry
Howell K. Wilson, Ph.D., Chairman and Professor of Mathematics, Statistics and Computer Science
Gertraude C. Wittig, Dr. Rer. Nat., Professor of Biological Sciences
Arthur C. Zahalsky, Ph.D., Professor of Biological Sciences
Frederick W. Zurheide, M.S., Associate Professor of Physics

Teaching

Research

Government Agencies

Industry

Museums

Archaeological

Foreign Service

SCHOOL OF SOCIAL SCIENCES



SUZANNE D. JACOBITTI, *Dean*

Offering degrees in:

Anthropology
Earth Science
Economics
Geography
Government
History
Sociology
Social Work

SCHOOL OF SOCIAL SCIENCES

The School of Social Sciences offers undergraduate and graduate courses and programs designed to enable students to achieve an understanding and appreciation of civilization viewed in the historical perspective, and to gain, through the various social sciences, an awareness of the society of which they are a part and of their role in it. These studies provide insights and understandings which enable students to live more constructively with others in the family, community, state, and nation and provide a better understanding of social organizations, technologies, the environment, and the nature and variety of human beliefs and attitudes.

The major thrust of the School of Social Sciences is instructional, complemented by research and service to the community as necessary corollaries of effective teaching. More specifically, the School of Social Sciences is dedicated to quality education in liberal and applied arts disciplines and to provide supportive courses, research efforts, and service for general education and professional programs such as general studies, teacher education, and business programs. Through its liberal arts and applied social work and regional planning programs the School has a direct impact on the region's social, economic and cultural growth. Resources are allocated to provide an effective balance among instruction, research, and service to the community so that program quality will be enhanced.

ANTHROPOLOGY

Anthropology is a subject generally unfamiliar to high school graduates. As a natural, humanistic, and social science it emerged as a discipline in the latter part of the 19th century and has been expanding rapidly since then. Anthropology is concerned with studying humans and their physical and cultural developments through time and space. Among the major goals of anthropology are the development of a clear understanding of the potentials and limits of being human and respect for the various ways of life followed by others and the reasons for these practices. The student in anthropology acquires familiarity with physical anthropology — human evolution and comparison of humans with other life forms, especially non-human primates; anthropological linguistics — the structure, historical nature, variety, and importance of verbal communication and the significance of non-verbal communication; archaeology — the study of the past through excavation of human and cultural remains; social anthropology — human groups and institutions, their diversity and organization; and ethnology — the variety and range of human customs beliefs, and other aspects of life ways or cultures. Additionally, students receive training in the history and theory of the discipline, the collection and analysis of data, and the application of anthropology to contemporary world issues.

CAREER OPPORTUNITIES

Teaching
Research
Government Agencies
Industry

Museums
Archaeological Salvage
Foreign Service

Bachelor of Arts Degree, School of Social Sciences

The Bachelor of Arts degree is designed primarily to prepare students for advanced study in anthropology and includes a foreign language requirement.

<i>General Studies Requirements (See Chapter 3. Waive GSS-8.)</i>	60
<i>Foreign Language Requirement</i>	12
<i>Requirements for Major in Anthropology</i>	48
GSM 365	4
Anthropology 301 or 401, 400, 408, 411, 442	20
One ethnography course to be taken from Anthropology 305a,b, 307, 311, 482	4
Electives chosen in consultation with faculty	20
<i>Minor</i>	27
<i>Electives</i>	45
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Bachelor of Science Degree, School of Social Sciences

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 — 375-16 (8,8) and 475-8 (4,4), 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 in Anthropology

A minor in anthropology consists of 27 hours. GSM 365 and GSS 210, 313, 315, and 319 may be counted as part of the minor. The remaining hours consist of anthropology electives selected in consultation with the undergraduate anthropology adviser.

ECONOMICS

The Department of Economics 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 46 hours in the economics major and complete a minor in any other social science, business area, mathematics, or another field. Students in the Bachelor of Arts degree program must complete 12 hours in a foreign language. Students in the Bachelor of Science degree program are *not* required to take any foreign language courses. Students completing either of these degrees should be prepared to continue with advanced work in economics, enter professional schools in such areas as business, law, public administration, or urban planning, or begin careers with public service agencies. 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.

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. The student's program is planned with the advice of an undergraduate economics adviser.

Bachelor of Arts Degree, School of Social Sciences

<i>General Studies Requirements (See Chapter 3.)</i>	60
<i>Requirements for Major in Economics</i> ¹	46
GSS 351	4
GSM 144, 244	(9)
Economics 200, 201, 440, 441	16
Economics Electives	26
<i>Minor</i>	27
The minor must be approved by the student's adviser.	
<i>Foreign Language</i>	12
<i>Electives</i>	47
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¹GSS 150 does not count toward completion of the requirements of a major in economics.

Bachelor of Science Degree, School Of Social Sciences

<i>General Studies Requirements (See Chapter 3.)</i>	60
<i>Requirements for Major in Economics</i>	46
GSS 351	4
GSM 144, 244	(9)
Economics 200, 201, 440, 441	16
Economics Electives	26
<i>Minor</i>	27
The minor must be approved by the student's adviser.	
<i>Electives</i>	59
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Bachelor of Science Degree, School of Education

The Department of Economics also offers a Bachelor of Science degree under the auspices of the School of Education. Candidates for this degree must complete either a 36- or 48-hour major in economics and the School of Education's requirements for certification in secondary education. Students completing this degree will be able to pursue advanced work in economics or teach economics at the secondary school level. Students should develop their programs in consultation with an economics adviser.

The following courses constitute a 48-hour major in economics: GSS 150, 351, GSM 244, Economics 200, 201, 300, 440, 441, and 16 hours of economics electives.

The following courses constitute a 36-hour major in economics: GSS 150, 351, GSM 244, Economics 200, 201, 300, 440, 441, and 4 hours of economics electives.

For the requirements for certification, see secondary education.

Minor in Economics

A minor in economics shall consist of 24 hours and must include 200, 201, 440, and 441. The remaining 8 hours shall consist of electives in economics chosen in consultation with an adviser from the Department of Economics.

Bachelor of Science Degree, School of Business

See School of Business section of this chapter.

GEOGRAPHY *And Earth Science*

The Earth Science, Geography and Planning Department offers the Bachelor of Arts degree and the Bachelor of Science degree in the School of Social Sciences. Teaching field majors in geography and earth science lead to the Bachelor of Science degree offered in the School of Education.

The degree programs offered by the Earth Science, Geography and Planning Department provide a sound educational preparation for civil service appointments or for positions in public or private organizations requiring the services of geographers, earth scientists, meteorologists, cartographers or planners. The earth science major is designed to give students a broad scientific background which prepares one 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. The preplanning area of emphasis provides background courses for students who wish to pursue a professional degree in planning at the graduate level.

The program leading to a Bachelor of Science in Education degree provides preparation to teach geography or earth science in the junior high or secondary schools. With additional graduate work one could also teach in the junior or community college. Departmental courses also aid in preparation for the broader teaching fields of physical science and social science.

A broad background in other fields is of great importance to a geographer. Thus, it is recommended that geography students use their elective hours to take work in other areas. Students interested in physical geography or earth science should consider work 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 and planning students are strongly urged to take work in

quantitative methods. A minimum of high school algebra is also recommended. GSM 110, 111, 210, 212, 213, and GSS 240 and 245 are recommended General Studies courses that will complement a major or minor in the department.

CAREER OPPORTUNITIES

- Law

Teaching

Governmental Administration

Politics

Diplomacy
- Business

Planning

Travel Agencies

Environmental Analysis

Cartography

Bachelor of Arts or Science Degree, School of Social Sciences :

General Studies Requirements (See Chapter 3.)	60
Requirements for Major in Geography	48
Core requirements: 302, 303 or 307, 304, 306, 308, 310a, 410a and one regional course (substitutions require consent of geography adviser)	32
Geography Electives	16
Electives	84
2 *	192
(General Studies Requirements (See Chapter 3.)) OK	60
Requirements for Major in Earth Science	50
(Electives	82) OK
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Bachelor of Science Degree, School of Social Sciences

The requirements for the Bachelor of Science degree are the same as for the Bachelor of Arts degree except that no foreign language is required.

Bachelor of Science Degree, School of Education

For this degree, students must complete all General Studies and School of Education requirements in addition to the departmental requirements listed above in the Bachelor of Arts degree; for this degree a minor is required. A 36-hour major also is possible with the completion of two minors.

For this degree, the earth sciences major requires Geography 444, Teaching of Earth Science. Students are urged to take a minor in such fields as biology, chemistry, physics, mathematics, or environmental studies. For the geography teaching major either 443 or 480 is recommended.

Minor Concentration

Students working for a 28-hour minor in geography or taking the social studies major in education must take 304, 306, and 308.

A minor in earth science consists of 30 hours selected from those courses required for a major.

Minor in Environmental Science

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 402c, 404a, 412—2, 471a, 475—5. Group II: Science and Technology — GSM 131—2, 234, 300, Biology 303c, Chemistry 110, Physics 206, 211, 212, Science and Technology 101c, 330.

GOVERNMENT

The study of government can be valuable in a number of different ways. In the first place, every citizen ought to know something about the political system of which he/she is a part. The framers of the United States Constitution believed that ultimately an enlightened and informed citizenry was democratic government's only hope for survival. In an era in which government plays an increasing role in our daily lives, knowledge of the government and its processes is ever more important in preparing the individual to cope with, or perhaps to change, contemporary political realities. In addition, students who intend to enter public service, the law or law enforcement, teaching, journalism, and even business ought to be particularly well versed in the processes by which society governs itself.

The Department of Government and Public Affairs offers its students courses in the discipline of political science, which is broadly concerned with the study of government and politics. Political scientists study governments in a number of different ways and from a wide range of perspectives. Some are principally concerned with how governments are structured and how they operate. Others are concerned with the more fundamental and philosophical questions of how they ought to be structured and how they ought to operate. These concerns are reflected in the wide variety of courses from which students can choose. A number of these courses deal exclusively with government in the United States — with political parties and voting behavior, with interest groups, with bureaucracies and their growing role in modern government, with the processes of the executive or the legislative or the judicial branches of government, or with the study of the public policies we have adopted to solve pressing problems. Other courses investigate relations among nations, or the ways in which the governments of other nations function. Finally, concerns with how government ought to function are manifested in courses in political theory and political philosophy.

Bachelor of Arts Degree, School of Social Sciences

<i>General Studies Requirements (See Chapter 3.)</i>	60
<i>Foreign Language</i>	12
<i>Requirements for Major in Government</i>	48

A minimum of 48 hours, including 200 and 203, 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.	
Minor	28
Electives	44
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Bachelor of Science Degree, School of Social Sciences

Requirements for the Bachelor of Science degree are the same as for the Bachelor of Arts degree except that the student need not offer a foreign language proficiency.

Bachelor of Science Degree, School of Education

For this degree, the requirements for a major in government total 48 or 36 hours in government, including 200 and 203, depending on whether the student has one minor or two. At least 4 hours (but no more than 20 hours) should be taken in four of the six areas of specialization listed above. See Secondary Education requirements.

Minor in Government

A minor is 28 hours and must include 200 and 203 and at least one course in three of the six areas of specialization.

CAREER OPPORTUNITIES

Students who major in political science or government have usually gone into such careers as the government service (at the federal, state, or local levels), teaching, law, journalism, or business. Although the opportunities for employment in teaching and journalism are expected to become more limited in the near future, projections indicate that the demand for lawyers and for college graduates interested in business and government careers will continue to be strong. Moreover, the curriculum and requirements of the Department allow the student ample opportunity to develop the kinds of specialized knowledge, the skills in the analysis of social, political, and economic data, and the mastery of the English language which can help the student make himself/herself a more attractive prospective employee.

HISTORY

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; and 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 closely akin 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 can and does prepare persons for meaningful participation in the families, communities, nations, and world of today.

CAREER OPPORTUNITIES

Traditionally many students of history have become teachers, and 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 as civil servants. 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.

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.

Bachelor of Arts Degree, School of Social Sciences

<i>General Studies Requirements (See Chapter 3.)</i>	60
<i>Requirements for Major in History</i>	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-se- nior level (301-499; two history 300 minicourses may be substituted for one of the eight history courses)	32
<i>Foreign Language Requirement</i>	12
<i>Minor</i>	27
<i>Electives</i>	41
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Bachelor of Arts Degree (Honors Program), School of Social Sciences

The Bachelor of Arts degree honors program is identical to the above program except that the student 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.

Bachelor of Science Degree, School of Social Sciences

The Bachelor of Science degree program is identical to the Bachelor of Arts degree program except that the student is not required to study a foreign language. Thus the language requirement is eliminated, and the elective hours are increased by 12.

Bachelor of Science Degree, School of Education

The major requirements in history are the same for the Bachelor of Science degree offered by the School of Education as for the Bachelor of Science degree offered by the School of Social Sciences. (See Secondary Education.)

Minor in History

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 301-499 should be completed. Two history 300 mini-courses may be substituted for one of the five upper level courses.

Minor in Latin American Studies

The minor in Latin American Studies is designed for those students who are interested in a multidisciplinary understanding 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; two courses chosen from among these: Economics 422, Geography 467a, Geography 467b, Anthropology 307.

SOCIOLOGY

Sociology is the scientific study of groups, organizations, institutions, and societies. Sociologists are also interested in the values and beliefs that underlie human relationships. Where other social sciences specialize in particular aspects of personality development or in particular social institutions, sociology is concerned with the general overall relationships among social institutions and between group membership and personality. Through sociology students come to understand themselves, their relations to other people, and the nature of our society.

An area of concern to sociologists is social problems including race relations, social deviance, social inequality, urban problems, crime, marriage, and family relationships. Through sociology a person can come to understand how personal troubles relate to interpersonal, regional, national, and world issues. While many perspectives are essential to identifying the

causes of social problems and the alternative solutions to them, sociology offers a broad, integrating overview.

The methods used by sociologists are scientific. Whatever a sociologist claims about a social institution or social problem must be substantiated with factual evidence or a sociologist must make clear how such evidence might be obtained. It is attention to gathering data that distinguishes sociology from some other approaches to dealing with social problems.

Because sociology is a general social science, students majoring in other fields should find courses in sociology helpful. This is especially true for such courses as medical sociology, the sociology of education, contemporary social problems, marriage and the family, industrial sociology, social psychology, and others.

CAREER OPPORTUNITIES

Persons with an undergraduate degree in sociology find a variety of jobs accessible to them. A number of government agencies and some business firms are interested in obtaining the services of well educated young 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 or local level are interested in persons with undergraduate degrees in sociology. Sociology majors obtain positions in social case work, in probation and parole services, in police departments, in city or regional planning agencies, and in employment and welfare agencies. A major in education with a concentration in sociology prepares one to teach in the growing number of secondary schools that offer sociology courses. Finally, there are reasonably good job opportunities in research, administration, and college teaching for persons who continue their sociology training in graduate school.

The Bachelor of Science degree in sociology requires 48 hours of course work including GSS 130, Sociology 310, 312, 321, 430 and 456. The Bachelor of Arts degree in sociology requires 12 hours of a foreign language in addition to the above courses. Social work courses do not count toward a sociology major or minor. Students in the School of Education are required to complete 48 or 36 hours in sociology, depending on whether the student has one or two minors.

Bachelor of Science Degree, School of Social Sciences

<i>General Studies Requirements (See Chapter 3. Waive GSS-8.)</i> . . .	60
<i>Requirements for Major in Sociology</i>	48
GSS 130	4
Sociology 310, 312, 321, 430, 456	20
Sociology Electives	24
<i>Minor</i>	28
<i>Electives</i>	56

Bachelor of Arts Degree, School of Social Sciences

<i>General Studies Requirements (See Chapter 3. Waive GSS-8.)</i> . . .	60
<i>Foreign Language Requirement</i>	12
<i>Requirements for Major in Sociology</i>	48
GSS 130	4
Sociology 310, 312, 321, 430, 456	20
Sociology Electives	24
<i>Minor</i>	28
<i>Electives</i>	44
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Bachelor of Science Degree, School of Education

The requirements for this degree with a major in sociology include GSS 130, Sociology 301, 312, 321, and 451 and sociology electives to complete 48 hours. (See Secondary Education requirements.)

Minor in Sociology

A minor in sociology consists of 28 hours of course work in sociology and may include GSS 130.

SOCIAL WORK

Social work is a profession which is 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, as well as promoting positive change in social conditions, and serving as an advocate for individuals and groups which are disadvantaged or discriminated against.

Professional social work practice consists of the application of knowledge from the social and behavioral sciences, professional values and ethics, and mastery of the skills of working with people to facilitate change.

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 V.A.

THE SOCIAL WORK PROGRAM

The undergraduate social work program focuses on the knowledge, values and skills needed for social work practice, and is designed to prepare the student for beginning practice or entry into graduate social work education. Although the program emphasis is generalist, the opportunity to explore specific interests is available in the selection of electives and the field placement setting.

ADMISSIONS

It is the intent of the recruitment and admissions procedures 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 a professional value set and the ability to relate well to people in a variety of situations. Much of this can be taught in a formal setting, but the personal characteristics of the student 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 program faculty assumes responsibility to the profession, students, and 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 identify students for whom this career choice is extremely unwise before excessive time is invested 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 while in the program.

ADMISSIONS REQUIREMENTS AND CRITERIA

1. Completion of at least 30 quarter hours of college work with an overall GPA of at least 3.0.

2. Completion of 200 and 282 with grades of C or better. (282 can be waived by the adviser for those with equivalent prior work or volunteer experience in social services.)

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 the student's performance in social work courses; interviews with the adviser, the Admissions Committee or other faculty; and information from the field experience in 282 (or its equivalent, if waived). Other information may also be considered with the informed consent of the student.

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 sequencing of and prerequisites for courses in this major, and the various recommended and required courses offered by collaborating departments.

FIELD PRACTICUM

In addition to classroom courses, the student spends a minimum of three hundred hours in a social work practice setting. This course is 482 and gives 12 credit hours. It may be taken in one quarter or over a two-quarter period. The practicum is an individualized and closely supervised learning experience that gives the student 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 student's needs and interests within the context of the educational objectives of the program.

Bachelor of Science Degree, School of Social Sciences

<i>General Studies Requirements</i>	60
(GSS 150 required)	
<i>Professional Requirements</i>	58
Social Work 200, 282, 375, 381, 383, 385, 480, 481, 482, 490	50
Sociology 308, 312	8
<i>Supporting Requirements</i>	32
Anthropology 411	
Economics 309 (GSS 150 required prerequisite)	
Government 203, 342	
Psychology 305, and one of the following: 301, 303, 304	
Sociology 300, 304	
<i>Electives</i>	42
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COURSES

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—6 (3,3) PEOPLES AND CULTURES OF THE WORLD I.** The biological and cultural history of man in (a) North America, (b) Asia.
- 307—4 PEOPLES AND 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 anthropological study of the shaping influences and present content and orientation of the unique cultural contributions of black Americans; black institutions, in particular, the family and religion, and political movements in the context of American culture. 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 sociocultural 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 methods of archaeology and a survey of prehistoric Indian culture north of Mexico, with particular emphasis on the cultures of the Mississippi Valley.

367—4 GROWTH OF NEW WORLD CIVILIZATION. Beginnings and rise of culture-centers in the New World, with attention to Mexico, Yucatan, and Andean developments; ecological and cultural factors conditioning the rise of regional and inter-regional cultural manifestations.

375—16 (8,8) INTRODUCTION TO FIELD METHODS. An introduction to field methods in anthropology. (a) Archaeological field methods including site survey and evaluation techniques, excavation and data recording, lab methods and interpretation. (b) Ethnological field methods in cross-cultural settings, controlled field sites, rural and urban areas; independent and/or group research — personalized staff supervision. Prerequisite: GSS 210 or consent of instructor.

400—4 CULTURAL ANTHROPOLOGY. The nature of culture and cultural process. Relationships of culture and man as an individual and as a group. Emphasis on the anthropological point of view.

401—4 ANTHROPOLOGICAL LINGUISTICS. (Cross-listed with English 401.) Introduction to concepts, methods, analytical techniques of linguistics with examination of their applicability to more general anthropological concerns; linguistic approaches to the anthropological concerns; linguistic approaches to the anthropological study of meaning; applied anthropological linguistics.

404—4 PRIMITIVE ART AND TECHNOLOGY. The development of man as a tool-using and art-loving being. Artistic and technological traditions of non-Western peoples, past and present.

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. The beginnings of anthropology in the eighteenth century and its development as a discipline; important shifts in theory, method, and problem definition; evolution, structure, and configuration in anthropological thought. Prerequisite: junior standing or consent of instructor.

409—4 APPLIED ANTHROPOLOGY. The applications of anthropological principles to the solution of problems of the modern world. Contributions of anthropology to the work of the educator, social worker, administrator, business man, government official, and other specialists dealing with man in Western and non-Western cultures.

410—4 ANTHROPOLOGICAL PERSPECTIVES ON RELIGION. An anthropological approach to the study of primitive religion, with emphasis on religion as one aspect of culture. Historical and contemporary perspectives, and various religious expressions from selected ethnographic areas. Prerequisite: GSS 210 or consent of instructor.

411—4 URBAN ANTHROPOLOGY. An anthropological approach to urban society, with an emphasis on study of ethnic communities and the effects of industrialization and social complexity on modern man and his culture. 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. Examination of long and short range culture change, acculturation process and innovation, theory and method in study of culture change.

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 and survey of personality in relation to cultural differences found in the "folk societies" with emphasis on the socialization and enculturation of the child; group variants in personality and measurement of their cultural correlates. Prerequisite: junior standing or consent of instructor.

426—4 THE FAMILY IN CROSS-CULTURAL PERSPECTIVE. Family systems of the world, with a concentration on Asian, American Indian, and black family types. Alternative ways of organizing family relationships and how they articulate with economic and political systems within a society. The family as enculturating agent and as a unit in which age, sex, and kinship roles are structured and integrated within the total society. Prerequisite: GSS 210 or consent of instructor.

432a—4 ARCHAEOLOGY OF THE MIDWEST. A survey of prehistoric cultural developments in the Mississippi River drainage, with emphasis on events leading to the climax of the Mississippian culture at Cahokia; contributions to archaeological theory; field trips to local archaeological sites. Prerequisite: 300 or consent of instructor.

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 man-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 to 12 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. Prerequisite: GSS 210 or consent of instructor.

475—8 (4,4) ADVANCED FIELD METHODS. Advanced field methods in anthropology: (a) Advanced archaeological field methods with emphasis on new techniques for recovery of information; (b) 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: 375a or 375b, respectively; or consent of instructor.

482—4 INDIANS OF THE PLAINS: PREHISTORY, ETHNOHISTORY, AND CULTURE. An advanced introduction to dynamic changes which produced the Plains Indian Culture-Area, including the acculturative history of Plains Indians after contact with Europeans. Prehistoric antecedents of the historic tribes; basic features of Plains Indian culture, with subareal variations; and ethnohistory and acculturation in the wake of the advancing frontier. Prerequisite: junior standing or consent of instructor.

483—1 to 8 INDIVIDUAL STUDY IN ANTHROPOLOGY. Guided research on anthropological problems. Consult Chairman before enrolling.

EARTH SCIENCE

For course descriptions, see Geography.

215—5 MINERALOGY AND PETROLOGY.

302—4 INTRODUCTION TO PHYSICAL GEOGRAPHY.

303—4 METEOROLOGY.

307—4 CLIMATE.

- 308—4 INTRODUCTION TO GEOGRAPHIC METHODS.
 310—8 (4,4) INTRODUCTION TO CARTOGRAPHIC METHODS.
 325—4 STRUCTURAL GEOGRAPHY.
 400—4 THE EARTH IN SPACE.
 401—4 THE HISTORY OF THE EARTH.
 402—12 (4,4,4) PHYSICAL GEOGRAPHY.
 403a—4 PRINCIPLES OF GEOMORPHOLOGY.
 403b—4 REGIONAL GEOMORPHOLOGY OF THE EASTERN UNITED STATES.
 403c—4 REGIONAL GEOMORPHOLOGY OF THE WESTERN UNITED STATES.
 410—8 (4,4) QUANTITATIVE METHODS IN GEOGRAPHY.
 412—2 (1,1) ILLINOIS CONSERVATION PROBLEMS.
 416—8 (4,4) CARTOGRAPHY.
 417—4 AIR PHOTO INTERPRETATION.
 424—4 REGIONAL PROBLEMS IN CONSERVATION.
 441—4 PALEONTOLOGY.
 442—4 PRINCIPLES OF STRATIGRAPHY.
 444—4 TEACHING OF EARTH SCIENCES.
 450—3 to 15 TRAVEL STUDY COURSE.
 475—4 to 8 FIELD STUDY OF ENVIRONMENTAL PROBLEMS.
 490—1 to 4 TUTORIAL IN EARTH SCIENCE.

ENVIRONMENTAL STUDIES

415—4 ENVIRONMENTAL PSYCHOLOGY. (See Psychology 415.)

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.

GEOGRAPHY

215—5 MINERALOGY AND PETROLOGY. Occurrence, properties, classification, origin, description, and identification of common minerals and rocks. One weekend field trip required.

302—4 INTRODUCTION TO PHYSICAL GEOGRAPHY. A study of the earth's physical surface, world distribution patterns of the physical elements, their relationship to each other, and their importance to man. Field trip and laboratory work.

303—4 METEOROLOGY. An introduction to weather elements, condensation process, air masses, cyclonic activity, and weather movements.

304—4 INTRODUCTION TO ECONOMIC GEOGRAPHY. Study of the spatial distribution and interaction of economic activities. Introduction to locational theory.

306—4 INTRODUCTION TO CULTURAL GEOGRAPHY. An overview of the geographic viewpoint in the study of the human occupancy of the earth. Aspects of population, settlement, and political geography, and a generalized survey of major world culture areas.

307—4 CLIMATE. A study of the major climates of the world with special emphasis on the climates of the United States.

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.

310—8 (4,4) INTRODUCTION TO CARTOGRAPHIC METHODS. Properties of maps and air

photos, their uses and sources; map symbols, map projections, and map construction. Introduction to the use of quantitative techniques as applied in geographic study. Laboratory. Must be taken in sequence.

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. One weekend field trip or field project required. Prerequisite: 215.

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.

401—4 THE HISTORY OF THE EARTH. Methods and problems of interpreting geologic history. Physical history of continents (emphasis on North America; in terms of rocks, orogenies, and history of development and evolution of organisms and their adaptation to various environments).

402—12 (4,4,4) PHYSICAL GEOGRAPHY. (a) Soils, (b) climate, (c) water.

403a—4 PRINCIPLES OF GEOMORPHOLOGY. Processes and structures influencing the shape of the land surface.

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 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 consent of instructor.

404—12 (4,4,4) URBAN GEOGRAPHY AND ECOLOGY. (a) Urban Geography and Ecology. (b) Industrial Location. (c) Resource Base.

405—8 (4,4) LOCATION OF ECONOMIC ACTIVITIES II. (a) Area development. (b) Transportation.

406—8 (4,4) POPULATION GEOGRAPHY. (a) World population patterns. (b) Problems in population geography. Prerequisite: 306.

407—8 (4,4) CULTURAL GEOGRAPHY. (a) Historical geography. (b) Settlement geography. Prerequisite: 306.

410—8 (4,4) QUANTITATIVE METHODS IN GEOGRAPHY. Statistical, computer and remote sensing research techniques for geographers.

412—2 (1,1) ILLINOIS CONSERVATION PROBLEMS. Such problems as water, land use, air, mineral use, recreation and waste disposal.

416—8 (4,4) CARTOGRAPHY. Instruction and practice in (a) thematic mapping, (b) planimetric mapping. 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. Prerequisite: 310a.

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 and vertebrates from the standpoint of evolution and taxonomy. Study and identification of specimens is stressed. Prerequisite: GSM 210.

442—4 PRINCIPLES OF STRATIGRAPHY. The study of sedimentary rocks, their classification, environments of deposition, and the rules and practice of stratigraphy. Prerequisite: GSM 111.

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 readings on areas visited.

- 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—4 GEOGRAPHY OF EUROPE.** Topical. Physical, cultural, and economic coverage.
- 464—4 REGIONAL GEOGRAPHY OF SOVIET WORLD.** (See 462.)
- 465—4 REGIONAL GEOGRAPHY OF AFRICA.** (See 462.)
- 466—4 REGIONAL GEOGRAPHY OF ASIA.** (See 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—12 (4,4,4) URBAN PLANNING.** (a) History of planning. (b) planning and politics. (e) planning seminar.
- 471—8 (4,4) REGIONAL ENVIRONMENTAL PLANNING.** (a) Regional planning. (b) Location of urban and regional economic activity.
- 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 primary concentrations only. Prerequisite: senior or graduate standing.
- 475—4 to 8 FIELD STUDY OF ENVIRONMENTAL PROBLEMS.** Field investigation of physical features of the environment and problems relating to man's use of the natural environment and resources. Prerequisite: advanced 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.
- 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.
- 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 requirement.
- 308—4 DATA ANALYSIS AND ELEMENTARY STATISTICS.** (Same as Sociology 308.) Elementary data analysis including coding of data, data processing, table construction, and simple multivariate analyses. Introductory statistical concepts such as measures of central tendency, measures of dispersion, probability and tests of significance.
- 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 British and German political systems. (c) 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. An examination of the political systems of five representative states: Mexico, Brazil, Ecuador, Cuba, and Uruguay. (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. Prerequisite: 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. Prerequisite: 320.

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—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 chairman 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—12 (4,4,4) AMERICAN POLITICAL BEHAVIOR. (a) American Voting Behavior. Survey of studies of American elections emphasizing the psychological, sociological, and political-legal bases of voting behavior. (b) Personality and Politics in the United States. A survey of research findings concerning the relationship of psychological and sociological characteristics to the political process. (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—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 chairman is received. Prerequisite: 203.

456—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 chairman is received. Prerequisite: 350 or 355.

473—16 (4,4,4,4) 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. (d) United States and Latin American Relations. Analysis of the foreign policy of the United States towards the Latin American nations with emphasis on the historical development of Pan-Americanism and its effect on the foreign policies of the member nations. 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—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 chairman is received. Prerequisite: 370.

481—8 (4,4) DESCRIPTIVE POLITICAL THEORY. (a) Contemporary Systematic Political Theory. Intensive study of major contemporary attempts to devise a general systems theory of politics. (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 chairman 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.

499—4 to 8 INTERNSHIP IN GOVERNMENT. Internships consist of fulltime 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 professional development, while also making a positive contribution to the office to which he 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.

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 THE NEGRO IN AMERICA. The role of the Negro in America from the 17th century to the present with emphasis on the period since 1865.

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. Emphasis on the lands, people, and state 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 NEAR EAST. (a) The formation of Islamic civilization. (b) Islamic civilization in the period of the Crusades and the Ottoman Empire. (c) Nationalism and modernization in the Near East.

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.

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.

360—4 HISTORY OF SPAIN. The political, social, and cultural history of Spain from prehistory to the present time.

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.

400—4 PROSEMINAR IN COMPARATIVE HISTORY. The application of the method of comparative history to one or more of the following themes: colonial rule, revolutions, nationalism, frontiers, immigrations, slavery, civil war, racial conflict, industrialization, urbanization, socialism and labor, depressions, imperialism. Open to students in the history honors program and to others with consent of instructor.

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.

408—8 (4,4) HISTORY OF THE ANCIENT NEAR EAST. (a) Earliest times to 1200 B.C. (b) 1200 B.C. to 330 B.C. Prerequisite: 100 or equivalent.

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 4.0 average in history, consent of chairman.

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 Absolutism and Enlightenment.

419—16 (4,4,4,4) 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. (d) Special Topics in English History.

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—12 (4,4,4) MODERN EUROPEAN THOUGHT. (a) From Absolutism to Revolution. (b) Socialism, Nationalism and Liberalism. (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 requirements.
- 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.
- 429—4 MAN AND SOCIETY IN EAST ASIAN HISTORY.** A study of the changing attitudes towards the rights of the individual as opposed to the rights of society in selected East Asian countries such as China and Japan.
- 430—12 (4,4,4) LATE MODERN EUROPE.** (a) Age of Revolution, 1815-1880. (b) 1880-1918. (c) Since 1918. Age of Dictatorships.
- 431—4 PROBLEMS IN THE RELIGIOUS HISTORY OF THE MODERN WEST.** A study of critical issues of theological adaptation, institutional accommodation, and church-state relationship which characterize the religious history of Europe and America since the seventeenth century. Attention to factors contributing to crises in modern religious thought and institutions, to the various responses of religious, social, and political institutions, and to the implications of these responses for Western societies.
- 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, Arab socialism, oil and economics, Islam in the modern world.
- 435—12 (4,4,4) ADVANCED AMERICAN HISTORY.** (a) 1896-1921. (b) 1921-1945. (c) 1945 to present.
- 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.
- 447—4 PROBLEMS IN RUSSIAN SOCIAL AND CULTURAL HISTORY.** An overview of Russian cultural history concentrating on such problems as the schism and the Old Believers, the *mir*, definition of the role of the autocrat, the police, and law in Russian society. Prerequisite: one course in Russian studies.
- 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. Prerequisites: (a) GSS 101, 102; (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. Prerequisite: a course in U.S. history.

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. Prerequisite: one course in U.S. history or consent of instructor.

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.

SOCIAL WORK

200—4 INTRODUCTION TO SOCIAL WORK. A pre-professional introductory course designed to acquaint the student with the major aspects of the profession of social work and to provide him with the opportunity to evaluate his interest in continuing training for the profession.

282—2 FIELD LABORATORY IN SOCIAL WORK. A supervised field laboratory placement in selected social service settings designed to give prospective social workers observational and helping experiences whereby they can evaluate their potential for social work service and their interest in the profession and, in addition, enhance their understanding of the field of social welfare. Four hours per week in field setting, one hour per week in classroom. Prerequisite: 200 or concurrent enrollment.

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: 200.

381—4 THE FIELD OF SOCIAL WORK. A pre-professional 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: 200.

382—4 ANALYSIS OF SOCIAL WORK ORGANIZATIONS. Examination of contemporary urban social welfare organizations in their attempt to meet the economic and social needs of the recipients. The structure, function, and auspices of public and voluntary organizations. Social welfare organizations in their broad context and their adequacy in meeting common and unique human needs. Prerequisite: 200.

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: 200 or 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) 200, introductory courses in sociology and psychology; (b) 385a.

389—2 to 5 READINGS IN SOCIAL WORK.

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 or consent of instructor.

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 METHODS 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—6 or 12 FIELD INSTRUCTION. Educationally directed field instruction with social work supervision in a community setting. 150 clock hours for 6 credit hours; 300 clock hours for 12 credit hours. Weekly discussion meetings are held on campus. Prerequisites: 480 and 481 or consent of instructor.

485—2 PRINCIPLES AND PRACTICE OF CHILD WELFARE. Social work processes in a child welfare setting and related issues of policy and practice. Intended for the advanced social work student. Prerequisite: 375, 381 or 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 ten 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. This 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, Deviancy 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.

301—4 SOCIAL THEORY AND METHODS OF INQUIRY. An examination of the relations

between theory and research. Emphasis on substantive concerns of sociology, and the role of theory and methods in exploring those concerns and acquiring an understanding of the world.

303—4 INFORMATION/SURVIVAL. An examination in systematic theoretical form of the role of information in promoting human survival and well-being. The effects of symbols, population size, centrality, technology, codification, and motivation on the scale of human cooperative systems along with causes of problems and their solution.

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.

305—4 LOCAL URBAN PROBLEMS. General examination of urban problems as they exist in the local community. Problems of welfare, race, city government, federal program administration, with emphasis on the city of East St. Louis, Illinois.

310—4 INTRODUCTORY SOCIAL STATISTICS. 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. Prerequisite: 310 or equivalent.

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.

334—4 SOCIAL STRUCTURAL CONSTRAINTS IN SOCIAL INTERACTION. A model of social structure emphasizing competing and contradictory normative expectations at the micro-sociological level; structural resources and mechanisms for ameliorating these contradictions in the role-set and status-set; role distance; accounts; secondary adjustments. Prerequisite: 321 or consent of instructor.

335—4 URBAN SOCIOLOGY. The rise, development, structure, culture, planning, and problems in early and modern cities.

338—4 INDUSTRIAL SOCIOLOGY. Social organization and processes within the formal and informal structure of the industrial unit; research and experimental materials concerning social determinants of morale, status, and role of the worker.

340—4 THE FAMILY. The family in historic and contemporary society; evolution of the modern family; change in family functions, structures, and roles.

341—4 SOCIOLOGY OF RELIGION. Functions of religious institutions in society and their relationship to other major social institutions, role in social control and group solidarity.

342—4 SOCIOLOGY OF EDUCATION. Methods, principles, and data of sociology applied to the school situation; relation of the school to other institutions and groups.

361—4 COLLECTIVE BEHAVIOR. The behavior of people as a part of large groups and aggregates; includes theories of collective behavior and the study of such phenomena as crowds, mobs, panics, disasters, rumors, and fads and fashions.

371—4 POPULATION AND MIGRATION. Characteristics of population, problems of growth, composition, distribution, differential fertility, international and internal migration.

372—4 CRIMINOLOGY. The nature of crime; criminal statistics; causal factors; theories and procedures in prevention and treatment.

373—4 INTRODUCTION TO CRIMINAL JUSTICE. An introduction to the American system of criminal justice, seeking an understanding of the nature and social impact of the legal process as it concerns crime and criminality. Among topics in detail are: police operations; police-community relations; corruption and misuse of force; criminal prosecution; negotiated justice; court operations, and sentencing.

381—4 POPULATION AND MIGRATION. Characteristics of population, problems of growth, composition, distribution, differential fertility, international and internal migration.

390—1 to 2 (8 total) SOCIOLOGICAL PERSPECTIVES. An investigation, from a sociological perspective, of various topics of contemporary interest to students. Provides a short (2½ or 5 weeks) but thorough study of such topics (e.g., ideology, humor, suicide, secrecy). Consult Schedule of Classes for specific topics and credit hours offered each quarter. Majors and minors may take up to 8 hours.

392—4 SOCIAL CONTROL. An examination of the forms of, techniques of, and responses to social control in modern society. Social control at different levels of social organization including face-to-face interaction, sustained groups, bureaucratic organization, and social control at the societal level.

394—4 COMMUNITY ORGANIZATION. Factors involved in community organization; types, aims, and objectives; community analysis; individual case study of specific community.

396—1 to 5 READINGS IN SOCIOLOGY. Supervised reading in selected subjects. Prerequisite: consent of chairman.

402—4 SOCIAL AND CULTURAL ASPECTS OF THE AFRO-AMERICAN EXPERIENCE. An examination of the experiences of black people in America; a comparison of the African cultural modes of their origin and the essentially European cultural modes black people encounter in America; the economic, political, and social factors in past and current Afro-American history.

404—4 WORLD FUTURES. An examination of alternative world futures given present world problems and potentialities. The world as a social system and the world's futures as seen through such means as science fiction, empirical studies, and simulation techniques. Planning for the future.

407—4 SOCIOLOGY OF DRUG USE. A survey of drug use and abuse with emphasis on the sociological implications for institutions in the United States; an analysis of not only the behaviors associated with use but also the social and legal response to such use.

408—4 THE ROLE OF WOMEN IN AMERICAN SOCIETY. An analysis of the role of women in historic and contemporary American society, alternative roles of women, traditional socialization patterns, and the consequences for society of women's changing roles.

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. Proficiency examination available. 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.

412—4 ALTERNATIVE RESEARCH DESIGNS. An examination and comparison of the important research designs and methods of data collection in sociology. Among the designs considered are: experimental and quasi experimental designs, survey research design, and field research. Prerequisite: 310 or 410 or consent of instructor.

422—4 NEGOTIATING SOCIAL REALITY. Humans characterized from the pragmatic perspective; emphasis on the creative response to problems posed by social situations; role bargaining; altercasting; self-presentation; interactional strategy; social exchange. Prerequisite: 321 or 334 or consent of instructor.

430—4 SOCIAL ORGANIZATION. An examination of the bases of social organization as both process and existence; reviews wide range of theoretical perspectives, and focus of classical theory on social organization; analyzes 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. 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 and social class on individuals and societies.

438—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.

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 CLASSIC SOCIAL THEORIES. An examination of the theories that are the basis for modern capitalism and socialism including the work of Adam Smith, Karl Marx, Max Weber, and Thorstein Veblen.

454—4 CURRENT SOCIOLOGY. A survey of important trends in contemporary sociology and social thought and an examination of the social organization of sociology as a profession.

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.

462—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.

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.

472—4 TREATMENT AND PREVENTION OF CRIME. Principles of penology; history of punishment and prisons; criminal law, police function, criminal courts; the prison community; the juvenile court, and related movements.

473—4 VICTIMOLOGY. 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?

494—4 MARRIAGE COUNSELING. Survey and analysis of the field of marriage counseling; assessment of current practices and techniques; case studies and supervision. Prerequisite: consent of instructor.

SCHOOL OF SOCIAL SCIENCES FACULTY

Jane A. Altes, M.A., Associate Professor of Sociology
Joyce C. Aschenbrenner, Ph.D., Associate Professor of Anthropology
Robert E. Ashpole, Ph.D., Assistant Professor of Sociology
Michael C. Astour, Ph.D., Professor of Historical Studies
William B. Baker, Ph.D., Professor of Earth Sciences and Planning
Hugh D. Barlow, Ph.D., Associate Professor of Sociology
Earl S. Beard, Ph.D., Professor of Historical Studies
Robert R. Blain, Ph.D., Professor of Sociology
Nedra R. Branz, M.A., Assistant Professor of Historical Studies
James G. Bridwell, M.A., Chairman and Assistant Professor of Earth Sciences and Planning
Robert B. Campbell, Ph.D., Professor of Sociology
Paul J. Campisi, Ph.D., Emeritus Professor of Sociology
Ching-chih Chen, Ph.D., Associate Professor of Historical Studies
Judith Cingolani, M.S.W., Assistant Professor of Sociology
Donald W. Clements, Ph.D., Assistant Professor of Earth Sciences and Planning
James E. Collier, Ph.D., Professor of Earth Sciences and Planning
Betty I. Crowther, Ph.D., Professor of Sociology
Sidney G. Denny, Ph.D., Chairman and Associate Professor of Anthropology
Katherine Dunham, Ph.B., Adjunct Professor of Anthropology
John W. Ellsworth, Ph.D., Professor of Government and Public Affairs
Robert F. Erickson, Ph.D., Professor of Historical Studies
John E. Farley, Ph.D., Assistant Professor of Sociology
William L. Farrar, M.A., Adjunct Assistant Professor of Historical Studies
John V. Farrell, Ph.D., Assistant Professor of Government and Public Affairs
William R. Feeney, Ph.D., Associate Professor of Government and Public Affairs
Charlotte J. Frisbie, Ph.D., Professor of Anthropology
Theodore R. Frisbie, Ph.D., Associate Professor of Anthropology
John G. Gallaher, Ph.D., Professor of Historical Studies
Kurt Glaser, Ph.D., Professor of Government and Public Affairs
William Goodman, Ph.D., Professor of Government and Public Affairs
Dorothy J. Gore, Ph.D., Associate Professor of Earth Sciences
Samuel B. Grant, Ph.D., Assistant Professor of Historical Studies
Richard E. Guffy, M.A., Assistant Professor of Earth Sciences
James M. Haas, Ph.D., Professor of Historical Studies
Warren H. Handel, Ph.D., Associate Professor of Sociology
Craig G. Heatwole, Assistant Professor of Government and Public Affairs
James M. Henslin, Ph.D., Professor of Sociology
Charles F. Hess, Ph.D., Professor of Earth Sciences and Planning
Dennis W. Hostetler, Ph.D., Assistant Professor of Government and Public Affairs
Gene T. Hsiao, L.L.M., Professor of Government and Public Affairs
Wesley D. Hurt, B.A., Lecturer in Government and Public Affairs
Edmund E. Jacobitti, Ph.D., Associate Professor of Historical Studies

- Suzanne D. Jacobitti, Ph.D., Dean and Associate Professor of Government and Public Affairs
- Norman C. Johnsen, M.A., Assistant Professor of Earth Sciences and Planning
- Alfred J. Junz, M.A., Adjunct Assistant Professor of Government
- Alfred Kahn, M.S., Professor of Earth Sciences and Planning
- Melvin E. Kazeck, Ph.D., Emeritus Professor of Earth Sciences and Planning
- James R. Kerr, Ph.D., Chairman and Professor of Government and Public Affairs
- Stanley B. Kimball, Ph.D., Professor of Historical Studies
- Harry B. Kircher, Ph.D., Professor of Earth Sciences and Planning
- Robert L. Koepke, Ph.D., Professor of Earth Sciences and Planning
- Fred A. Lampe, Ph.D., Associate Professor of Earth Sciences and Planning
- Robert H. Lauer, Ph.D., Professor of Sociology
- Carl S. Lossau, Ph.D., Professor of Earth Sciences and Planning
- S. D. Lovell, Ph.D., Professor of Government and Public Affairs
- Thomas J. Maloney, Ph.D., Associate Professor of Anthropology
- Loran D. Marlow, Ph.D., Associate Professor of Earth Sciences and Planning
- Wilbur C. McAfee, M.A., Associate Professor of Historical Studies
- Don F. McCabe, Ph.D., Associate Professor of Government and Public Affairs
- Allan J. McCurry, Ph.D., Professor of Historical Studies
- Daniel S. McHargue, Ph.D., Professor of Government and Public Affairs
- Robert E. Mendelson, M.U.P., Assistant Professor of Earth Sciences and Planning
- Halsey W. Miller, Ph.D., Professor of Earth Sciences and Planning
- Howard J. Miller, M.S.W., Assistant Professor of Sociology
- Richard L. Millett, Ph.D., Professor of Historical Studies
- Norman E. Nordhauser, Ph.D., Associate Professor of Historical Studies
- David S. Paulsmeyer, Ph.D., Assistant Professor of Government and Public Affairs
- Samuel C. Pearson, Ph.D., Professor of Historical Studies
- Michael A. Quinn, Ph.D., Associate Professor of Government and Public Affairs
- Patrick W. Riddleberger, Ph.D., Professor of Historical Studies
- Lawrence E. Riley, Ph.D., Associate Professor of Sociology
- Herbert H. Rosenthal, Ph.D., Chairman and Professor of Historical Studies
- Wayne D. Santoni, Ph.D., Associate Professor of Historical Studies
- Ernest L. Schusky, Ph.D., Professor of Anthropology
- David F. Schwartz, Ph.D., Assistant Professor of Government and Public Affairs
- Kenneth A. Shaw, Ph.D., President and Professor of Sociology
- Phillip Simon, M.R.C.P., Associate Professor of Earth Sciences and Planning
- Arthur A. Stahnke, Ph.D., Professor of Government and Public Affairs
- Ronald A. Steckling, Ph.D., Assistant Professor of Historical Studies
- Donald K. Strohmeyer, M.R.P., Associate Professor of Earth Sciences and Planning
- Richard L. Swaine, Ph.D., Chairman and Associate Professor of Sociology
- Donald L. Taylor, Ph.D., Professor of Sociology

John A. Taylor, Ph.D., Associate Professor of Historical Studies

Noble R. Thompson, Ph.D., Associate Professor of Earth Sciences and Planning

Charles A. Thornton, Ph.D., Associate Professor of Earth Sciences and Planning

Fred W. Voget, Ph.D., Professor of Anthropology

James J. Weingartner, Ph.D., Professor of Historical Studies

Stuart L. Weiss, Ph.D., Professor of Historical Studies

Louis P. Westfield, Ph.D., Assistant Professor of Government and Public Affairs

Dorris W. Wilton, M.A., Adjunct Assistant Professor of Historical Studies

Ronald A. Yarbrough, Ph.D., Associate Professor of Earth Sciences and Planning

OTHER ACADEMIC PROGRAMS



Aerospace Studies

Bachelor of Liberal Studies Program

**Center for Urban and Environmental Research
and Services**

Dean's College

**Delinquency Study and Youth Development
Center**

Environmental Resources Training Center

Office of Continuing Education

Office of Special Programs and Minority Affairs

Peace Studies

Presidential Scholars Program

Women's Studies

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 less 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 an especially appropriate minor 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 area for those interested in preparing themselves for their role of citizens in a democracy.

The minor in Peace Studies requires 28 hours. No courses used by the student for his major can be counted toward this 28 hours.

If you are planning to minor in Peace Studies, you must pay attention not only to the courses you are required to take but also to the prerequisites recommended for these courses. In order to assist you in planning your schedule, the requirements are listed below. It would also be wise to take GIS 340 (The Problem of War and Peace) in your sophomore or junior year in order to acquire a background for your other courses in the Peace Studies program. Advisement assistance with regard to this program can be obtained in Room 2212 of the Peck Building.

Required Courses (20 hours): GIS 340, Government 370, 472, History 440b, and at least one of the following (others in the group may be taken as electives): GSS 352, 388, Philosophy 342, History 424c, Economics 481, Government/Philosophy 484c.

Elective Courses (8 hours): GIS 260, GSS 315, Aerospace Studies 101, 102, 103, 201, 203, Anthropology 305a,b,c, 452, Government 472b, 485, Government/Philosophy 484a,b, History 427, 437, 440a, Sociology 406.

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 409, 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 an affirming and positive stance towards women, to inquire critically into the beliefs, attitudes and values surrounding women and womanhood; to investigate from a variety of perspectives the nature of

women — their experiences, their bodies, their abilities — in order to replace myth with understanding; to examine and evaluate critically assumptions held about women in the traditional academic disciplines; to explore alternative arrangements for women and men on all levels of our society — sociological, economic, personal; to develop skills in women heretofore closed to them by stereotypic expectations.

Ultimately, the goal of Women's Studies is to offer the student new attitudes, understanding 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.

Students interested in the minor should contact the Director of Women's Studies in Room 2219 of the Peck Building.

Requirements for the Minor

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 average of 3.50 is required in Women's Studies courses.

COURSES

321—4 SOCIAL PHILOSOPHIES OF THE WOMEN'S MOVEMENT. (See Philosophy 321.)

490—2 to 8 SPECIAL PROBLEMS. Seminar for qualified seniors and graduate students to pursue specific topics in depth. Varied content. 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.

AEROSPACE STUDIES

The objective of the Air Force Reserve Officers Training Corps program is to qualify students for appointment as Second Lieutenants in the United States Air Force. The Air Force ROTC unit at Southern Illinois University at Edwardsville was established in September, 1965. It is administered by commissioned officers of the USAF who have been assigned by the Department of the Air Force with approval of the University.

The Department of Aerospace Studies at Edwardsville offers a two-year and a four-year program. The latter is divided into the General Military Course (GMC), covering the freshman and sophomore years, and the Professional Officer Courses (POC), covering the junior and senior years. The GMC curriculum covers two main themes: The Air Force Today and The

Development of Air Powers. 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 by familiarizing the cadet with Air Force operations and organization.

Qualified senior Air Force ROTC cadets interested in becoming Air Force pilots participate in the Flight Instruction Program (FIP). Each FIP student receives twenty-five hours of free flight instruction at the Parks Aeronautical College flying school.

The academic hours of the General Military Course and the Professional Officer Course are allowable toward a bachelor's degree. Non-credit hours of Leadership Laboratory (one hour per week each quarter) are taken concurrently with the GMC and the POC. These courses provide leadership training experiences which will improve a cadet's ability to perform later as a USAF officer.

Air Force ROTC textbooks are loaned to all ROTC students without charge.

In addition to the Air Force ROTC programs offered for academic credit, Aerospace Studies sponsors the Arnold Air Society. This is a national honorary service organization open to selected AFROTC cadets.

Application may be made for either program at any time. Selection of students for enrollment into the POC is made by the Professor of Aerospace Studies. General qualifications are: (a) Qualify on the Air Force Officer Qualification Test. (b) Meet physical standards prescribed for appointment to the United States Air Force Reserve. (c) Be a full-time student in Southern Illinois University and be in good academic standing. (d) A flying applicant must be scheduled for commissioning prior to reaching 26½; a non-flying applicant must be scheduled for commissioning prior to reaching age 30. (e) The successful completion of an appropriate four- or six-week Summer Field Training Session.

Students in the POC also receive the following: (a) A monthly subsistence allowance of \$100 per month for a maximum period of twenty months. (b) An Air Force uniform. (This includes all required uniform items for summer and winter.) (c) In excess of \$300 for the summer field training course and a travel allowance to and from that place of training.

AIR FORCE ROTC AWARDS

Awards are presented to outstanding cadets during each academic year. Details concerning such awards are announced at appropriate times.

AIR FORCE ROTC SCHOLARSHIPS

The Air Force presently offers four, three, and two year scholarships, effective in the freshman (for high school seniors), sophomore and junior years respectively, to qualified cadets. This scholarship pays all tuition, fees and books. All scholarship holders receive the \$100 per month subsistence allowance.

ILLINOIS STATE ROTC SCHOLARSHIPS

SIUE presently provides ten state ROTC scholarships per year to qualified students. The scholarship waives tuition and activity fee for as long as the student remains enrolled in AFROTC. The basic requirements are that the applicant must be an Illinois resident, have demonstrated leadership ability and qualify on a competitive examination.

Minor in Aerospace Studies

The aerospace studies program is a minor provided for the primary purpose of educating the student in the leadership and managerial responsibilities associated with the administration of aerospace operations. In addition, the past, present, and future of aerospace technology are examined.

The program has a requirement of 27 hours and includes 18 hours in aerospace studies. The requirements are 301, 302, 303, 351, 352, and 353. The remaining 9 hours to complete the minor consist of electives chosen from several closely related areas in consultation with the student's adviser.

COURSES

100—0 LEADERSHIP LABORATORY. Supervised training laboratory. Conducted as an organized cadet corps. Designed to develop each student's leadership potential. Prerequisite: concurrent enrollment in 101, 102, 103.

101—1 THE AIR FORCE TODAY. General military course. Lecture discussion. Introduction to factors of national powers; nature of war; military institutions of the great powers; legislation, organization, and function of the Department of Defense.

102—1 THE AIR FORCE TODAY. Lecture discussion. Introduction to history, missions, and organization of the U.S. Air Force. Surveys the history and development of U.S. strategic offensive and defensive forces including their missions, functions, organization, and conventional nuclear weaponry. Prerequisite: 101 or consent of PAS.

103—1 THE AIR FORCE TODAY. Lecture discussion. Surveys civil defense, aircraft and missile defense, concepts of present and projections of future strategic defense requirements. Prerequisite: 101, 102 or consent of PAS.

200—0 LEADERSHIP LABORATORY. Supervised training laboratory. Conducted as an organized cadet corps. Designed to develop each student's leadership potential. Prerequisite: concurrent enrollment in 201, 202, 203.

201—1 DEVELOPMENT OF AIR POWER. Study of U.S. general purpose forces and how they support the U.S. commitment to allied nations. Includes army, navy, and marine forces with emphasis on American air power. Prerequisite: 101, 102, 103 or consent of PAS.

202—1 DEVELOPMENT OF AIR POWER. Study of America's aerospace support forces, including airlift, research and development, logistics, education and training, and related supporting agencies. Prerequisite: 101, 102, 103 or consent of PAS.

203—1 DEVELOPMENT OF AIR POWER. Discussion of the conflict between totalitarian and democratic ideologies, including a historical analysis of Soviet and Red Chinese communism and the continuing struggle for peace through treaty organizations and international cooperation. Prerequisite: 101, 102, 103, 201, 202 or consent of PAS.

300—3 LEADERSHIP LABORATORY. Provides a supervised training laboratory in support of and mandatory when enrolled in 301, 302, and 303. Instruction is conducted within the framework of a cadet corps, organized and operated by cadets in 300 and 340, with a progression of experience designed to develop each student's leadership potential at the junior level. Emphasis is placed on Air Force customs and courtesies, drill and ceremonies, career opportunities in the Air Force, and the life and work of an Air Force junior officer.

301—3, 302—3, 303—3 AIR FORCE MANAGEMENT AND LEADERSHIP. A study of military leadership, professionalism as it relates to the Air Force, and the theory and practice of

management principles and functions with special reference to the Air Force and the junior officer. Participation in problem-situation, and oral and written student assignments. Prerequisite: satisfactory completion of the GMC or the six-week field training course.

340—0 LEADERSHIP LABORATORY. Provides a supervised training laboratory in support of and mandatory when enrolled in 351, 352, and 353. Instruction is conducted within the framework of a cadet corps, organized and operated by cadets in 300 and 340, with a progression of experience designed to develop each student's leadership potential at the senior level. Emphasis is placed on Air Force customs and courtesies, drill and ceremonies, career opportunities in the Air Force, and the life and work of an Air Force junior officer.

350—2 FLIGHT REGULATION AND NAVIGATION. A study of flight regulations, weather, and navigation. Four hours lecture, demonstration-performance. Prerequisite: enrollment in the Air Force ROTC Flight Instruction Program or consent of PAS.

351—3, 352—3, 353—3 NATIONAL SECURITY FORCES IN CONTEMPORARY AMERICAN SOCIETY. A study of the fundamental civil-military relationship in American society, parameters of American social values, the military justice system, and the roles of the Air Force as an instrument of national security policy. Emphasis on refinement of communicative skills. Prerequisite: 301, 302, 303, or consent of PAS.

AEROSPACE STUDIES FACULTY

- Laurence D. Bachman, Lieutenant Colonel, M.A., Adjunct Professor of Aerospace Studies
- William J. Blackman, Major, M.B.A., Adjunct Assistant Professor of Aerospace Studies
- James E. Gilliland, Staff Sergeant, Adjunct Instructor of Aerospace Studies
- Michael F. Hrapla, Captain, M.S., Adjunct Assistant Professor of Aerospace Studies
- William F. Reaves, Staff Sergeant, Adjunct Instructor of Aerospace Studies
- John C. Pilkington, Staff Sergeant, Adjunct Instructor of Aerospace Studies

BACHELOR OF LIBERAL STUDIES PROGRAM

The Bachelor of Liberal Studies Program is designed to provide students with the option of obtaining a college degree without concentrating within any particular discipline of study. This degree provides the student who has no particular specialization or major in mind with an opportunity to obtain a greater understanding of the basic areas of knowledge.

Degree Requirements ¹	
General Studies Requirements	68
Broad Area Requirements	72
Natural Sciences	24
Social Sciences	24
Humanities-Fine Arts	24
Electives	52
	<hr/> 192

¹No more than 32 hours can be taken in any discipline. 80 hours of the total must be in courses numbered 300 or above.

A student may declare into Liberal Studies anytime prior to the senior year by applying at the Office of Academic Advisement. Upon the student's declaration into Liberal Studies, a student-adviser contract for the entire

degree will be prepared, subject to periodic review by both the student and the adviser.

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, though activities often cover a broader area and programs are directed toward an impact upon the general quality of urban life. It has undertaken projects in such fields as housing, pollution, public finance and administration, education, population, and community action. 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. No specific curriculum or teaching program emanates from the Center. However, its personnel teach in and plan for standard, as well as innovative and interdisciplinary, degree programs directed toward training in urban and environmental subjects.

The Center has a staff of ten permanent 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 their research and service interests.

THE DEAN'S COLLEGE

The Dean's College has been created to help outstanding students develop an academic program that is relevant to their needs and to assist them along the road to academic and professional competence. It was established to serve talented, creative and academically capable students from all of the disciplines as well as from secondary schools and transfer students from other institutions of higher education. The academically able student who has a real and legitimate need or reason to plan an individualized curriculum to suit his unique self, his vocational and professional needs, and his desires, is able to do so irrespective of many of the usual University requirements. The Dean's College provides a means for the selected student to study more intensively and to go more deeply into his major field of learning than would ordinarily be possible within the regular university framework.

The better academic student frequently has wide, diverse, and sometimes dissimilar interests. Through the Dean's College this type of student has the opportunity to explore more than one major or minor and, in fact, often changes from one major to another as a result of encountering exhilarating courses and professors. The Dean's College permits and encourages flexibility in academic program planning.

For advisement purposes the student being admitted to the Dean's College program is placed with a professor in the student's major field of study. It is thought that such early advisement enables the student to have early reference to a professor-specialist in his major field, and provides for important student-faculty interchange in developing the student's academic

program. Thus, a Dean's College student assigned to a faculty adviser whose field of interest reflects that of the student develops with the adviser a program of studies based upon student needs and capabilities. With the adviser's cooperation, a student may take up to 4 hours of individual study (Honors Hours) during each quarter of full-time enrollment.

In general, a 4.5 grade-point average is required for admission to the Dean's College. All applicants are required to present letters of recommendation. Students selected for the Dean's College must complete the usual 192 hours for the bachelor's degree.

Students with outstanding high school records, and others highly recommended by reason of talent by a teacher, counselor, or principal, may be admitted directly from high school. Thus, high ranking high school seniors are permitted and encouraged upon graduation to apply for admission to the Dean's College. Older, mature persons and others with special talents, abilities, and needs are encouraged to inquire into the possibility of applying for admission to the Dean's College as a means of continuing their interrupted educational programs and persevering to graduation.

Overall, the Dean's College program is directed at assisting a relatively small number of well selected students to achieve their academic, their creative, and their talent potential in the University.

The Dean's College is located in Room 1337 of the John S. Rendleman Building. Correspondence may be addressed to: Coordinator, The Dean's College; Box 78; Southern Illinois University at Edwardsville, Edwardsville, Illinois 62026.

COURSES

HONORS HOURS

101, 201, 301, 401—16 (1 to 4) DEAN'S COLLEGE. Special and pertinent activity, designed and supervised by carefully selected faculty members, suited to advance the educational development of a Dean's College student (e.g., work on a specific project, progress through a set of assigned readings, preparation of a major paper, etc.).

DELINQUENCY STUDY AND YOUTH DEVELOPMENT CENTER

The Delinquency Study and Youth Development Center has a long history of involvement with human services problems. Although specific objectives have tended to focus on the alleviation of delinquency and promotion of youth development, the Center's scope in training, research, and program planning has included a broad range of human services problems.

Hence, preschool education, new careers training, the amelioration of poverty, and the reeducation of personnel associated with the administration of criminal justice are examples of past and current involvements. Presently the Center offers a Bachelor of Arts or Bachelor of Science degree in Human Services, a variety of programs for Vietnam-era veterans, and provides local, state, and national consultation to public and private agencies.

The staff of the Center consists of a ten-member interdisciplinary team of social scientists. Psychology, sociology, education, law, counseling, criminal justice, theology, political science, and human development comprise the current expertise of Center faculty.

Demonstrative programming for youth, in-service training of professionals and paraprofessionals, regional and national conferences, and applied research are current and typical activities. In addition to help offered to undergraduate students in the program, the Center offers graduate credit to students working toward a degree in a related discipline.

HUMAN SERVICES

The human services major is an interdisciplinary four-year program designed to prepare students to enter and function constructively in the helping professions. The helping professions are defined as the services and programs offered in the related areas of crime, delinquency, corrections, law enforcement, employment, health, and welfare.

The emphasis of the 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 that is committed to meeting the unique and individual interests of each student. Thus, a general human services education is buttressed by the specialty interests of each student.

The human services curriculum totals 48 quarter hours. The courses reflect the intent of the staff to provide an inter-disciplinary and relevant academic program that will prepare students to acquire the skills, concepts, and attitudes necessary for effective work in the evolving field of human services.

Bachelor of Arts Degree, Delinquency Study and Youth Development Center

<i>General Studies Requirements (See Chapter 3. Waive GSS-8.)</i>	60
<i>Foreign Language</i>	12
<i>Requirements for Major in Human Services</i>	48
Human Services 101, 320, 401a	12
Human Services elective hours ¹	36
<i>Minor</i>	25-40
<i>Electives</i>	47-32

192

¹No more than a total of 12 hours of independent study will apply toward the human services major.

Bachelor of Science Degree, Delinquency Study and Youth Development Center

Students seeking a Bachelor of Science degree should follow the program outlined above, substituting 12 elective hours for the foreign language requirement.

Minor

A minor in human services consists of a minimum of 28 hours of course work in human services. Human Services 101 and 312 must be included in the 28 hours.

COURSES

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 indepth 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.

402—1 to 8 SEMINAR: SELECTED TOPICS. Seminar discussions devoted to human service systems. Content varies depending upon the interest of the students and faculty. Prerequisite: consent of adviser and instructor.

405—4 THE ETIOLOGY OF JUVENILE DELINQUENCY. An indepth 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.

410—4 ADVANCED RESEARCH IN HUMAN SERVICES. An applied statistics course which acquaints students with a variety of statistical techniques and tests, both parametric and nonparametric. Emphasis on the appropriate use of various tests in solving a variety of research problems in human services. The use of computers in research. Prerequisites: 320, 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.

DELINQUENCY STUDY AND YOUTH DEVELOPMENT CENTER FACULTY

W. Duane Bridenbaugh, Ph.D., Assistant Professor

Thomas R. Hughes, Ph.D., Associate Professor

James A. Jacobson, Ph.D., Associate Professor

Elizabeth R. Levine Levy, J.D., Assistant Professor

Richard C. Pooley, Ph.D., Assistant Professor

Benjamin F. Quillian, Jr., Ph.D., Assistant Professor

James J. Reidelberger, Lecturer

Nicholas A. Reuterman, Ph.D., Director and Associate Professor

James R. Stein, Ph.D., Associate Professor

Charles E. Stikes, Ph.D., Associate Professor

ENVIRONMENTAL RESOURCES TRAINING CENTER

The Environmental Resources Training Center (ERTC) is designated by the Illinois Environmental Protection Agency as the state center for training of personnel involved in potable water supply and wastewater treatment facility operation, maintenance and management. The ERTC occupies new facilities located on New Poag Road on the SIUE campus. The Center's facilities are designed, equipped and staffed specifically to provide environmental pollution control facility operation's personnel the training in the most current technology and procedures for treating both potable water supplies and wastewaters. The ERTC teaches treatment principles and emphasizes their practical application to plant operation and maintenance through a combination of lecture, laboratory and in-plant sessions. Training classes emphasize hands-on application in the laboratory and in the treatment plant of principles taught during lectures.

ERTC training programs are designed to assist both entry level personnel who wish to prepare for a career in potable water supply or wastewater treatment facility operations and persons already employed in treatment facility operations who desire additional education and training 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. For additional information about training opportunities at ERTC, write to Director, Environmental Resources Training Center, Campus Box 75, Southern Illinois University, Edwardsville, Illinois 62026.

OFFICE OF CONTINUING EDUCATION

The University offers, as part of its continuing education and public service program, several non-traditional methods for earning college credit and a wide range of non-credit activities. Regular credit courses are offered through a variety of delivery systems. Use of resident centers, home study, television and radio represent some of the non-traditional delivery methods while other courses are offered in extension, during the evening, and on the weekend to make the academic resources of the University available to a wider clientele. For additional information about continuing education activities, contact the Director by letter or by telephoning.

RESIDENT CENTERS

Three resident centers have been established, one each at Scott Air Force Base, Greenville College, and Litchfield Junior High School. Courses and degree programs identical to on-campus programs in academic content and degree requirements are offered at these locations. Further information regarding these courses and programs may be obtained by contacting the Resident Center Coordinator.

OPEN UNIVERSITY PROJECT

The Open University concept, which originated in Great Britain, is designed to provide regular college credit to adult students whose schedules prevent attendance at conventional classes. Specially prepared and coordinated workbooks, textbooks, and audio-visual materials greatly supplement contact with SIUE faculty at flexibly scheduled class sessions. Four foundation courses are offered as well as advanced courses. Open University foundation courses substitute as credit toward fulfillment of the GHA, GSM, GSS and GIS Areas of General Studies. All Open University courses are fully accredited and can be interchanged with other SIUE courses. Regular tuition and fee schedules apply, as well as all scholarships, grants, loans, etc. A number of courses are broken down into three-quarter sequences. While it is not required that a student take all three quarters of a sequence, it is strongly recommended. Interested students should also note that almost all of the requirements for a Bachelor of Liberal Studies degree can be fulfilled through the Open University.

EXTENSION COURSES

The University offers a wide range of extension courses where it is apparent there is a need for this method of instruction. Inquiries or requests for extension courses should be directed to this office.

CONFERENCES AND INSTITUTES

This office is responsible for the non-credit activities of the University. In addition to the typical workshops, conferences, and institutes, a wide range of non-credit courses is offered under the auspices of this office. Information concerning the scheduling of these activities or the necessary arrangements for hosting and administering these non-credit activities should be addressed to the Coordinator, Office of Conferences and Institutes.

COURSES

OPEN UNIVERSITY

HUMANITIES FOUNDATION. (OUHU 201 — 8 hours; OUHU 202 — 8 hours; OUHU 203 — 8 hours.) Credits: one quarter: 4 hours GHA, 4 hours electives; two quarters: 8 hours GHA, 8 hours electives; entire sequence: 12 hours GHA, 4 hours GIS, 8 hours electives. A beginning course for all persons who are interested in western history and cultural achievements. In addition to introducing students to basic disciplines, e.g., the handling of source material, the evaluation of a work of art or literature, clear and logical thinking, it also raises questions about the possible relations between technological development, social organization, religion, thought, and the arts.

SOCIAL SCIENCES FOUNDATION. (OUSS 204 — 8 hours; OUSS 205 — 8 hours; OUSS 206 — 8 hours.) Credits: one quarter: 4 hours GSS, 4 hours electives; two quarters: 8 hours GSS, 8 hours electives; entire sequence: 16 hours GSS, 8 hours electives. Brings together elements of sociology, economics, politics, and psychology. Current issues such as crime and unemployment are studied with respect to the differing viewpoints of the layman and the social scientist. Analyzes society in terms of population and technology, communication and mobility, as well as discussing production and allocation of resources, work, social relations, and beliefs and attitudes towards power.

TECHNOLOGY FOUNDATION. (OUST 201 — 8 hours; OUST 202 — 8 hours; OUST 203 — 8 hours.) Credits: one quarter: 5 hours GSM, 3 hours electives; two quarters: 10 hours GSM, 6 hours electives; entire sequence: 16 hours GSM, 8 hours electives. A course *about* technology, not a course *in* technology, it presents the what, why and should of technology, and not merely the traditional how. Examines the things we aspire to do with technology, the kind of thinking involved in its interactions with other fields of human activity.

SCIENCE FOUNDATION. (OUST 221 — 8 hours; OUST 222 — 8 hours; OUST 223 — 8 hours.) Credits: one quarter: 4 hours GSM, 4 hours electives; two quarters: 8 hours GSM, 8 hours electives; entire sequence: 16 hours GSM, 8 hours electives. Presents and explains some of the concepts and principles of importance in modern science and shows how science, technology, and society are interrelated. Designed both for students who may not intend to study science beyond the foundation level and for those who need the course as prerequisite for higher level science courses. Should have completed a technology or science course before enrolling for this foundation course.

CITY AND THE WORLD. (OUSS 321 — 8 hours; OUSS 322 — 8 hours; OUSS 323 — 8 hours.) Credits: elective. Analyzes the characteristics of urban societies and the universal process of urbanization. Focuses on urban communities throughout the world and is designed to increase the student's academic understanding of the operation of the city as an evolving social institution.

AGE OF REVOLUTIONS. (OUHU 330 — 8 hours; OUHU 331 — 8 hours; OUHU 332 — 8 hours.) Credits: electives. Presents and explains some of the main developments in European life and thought in the age of the French, American, and Industrial Revolutions, 1760-1848. Includes an extended study of the social, political, and economic changes, and the applicability of the term "revolution." Also a series of case studies: Jefferson, Rousseau, Goethe, Wordsworth, Kant, and the revolution in philosophy: Sir Humphry Davy and the developments in the physical sciences, Blake, "high art," Beethoven, and politics in France.

SCIENCE AND THE RISE OF TECHNOLOGY. (OUIS 301 — 8 hours.) Credits: 4 hours GIS, 4 hours electives. A one-quarter course intended for all students interested in the rise of our modern technological society. Beginning in 1800 a presentation of the main developments in science and technology insofar as these interacted substantially with each other. Nationalistic trends in science and the social implication of science and technology.

SCIENCE AND BELIEF: FROM COPERNICUS TO DARWIN. (OUIS 303 — 8 hours.) Credits: elective. A one-quarter course concerned with the intellectual rather than the technological implications of science. These are considered in their historical context. One particular aspect of the history of science, namely the history of scientific ideas.

HISTORICAL DATA AND THE SOCIAL SCIENCES. (OUHU 401 — 8 hours.) Credits: elective. A one-quarter course that is a broad introduction to the methodology of applied historical

studies. Concerns the application of historical data to the problems of the social sciences. Of special interest to students in social science seeking to test their findings on other than contemporary materials, and to history students eager to learn more of the tools of social science and the ways in which it can extend their understanding of the past.

EARLY ROMAN EMPIRE AND THE RISE OF CHRISTIANITY. (OUHU 345 — 8 hours.) Credit: elective. This one-quarter course presents the developments in the Roman Empire from the death of Augustus to the principates of Trajan and Hadrian. The philosophical schools of the Epicureans and the Stoics; the historical works of Tacitus and Juvenal; the architecture of Pompeii as well as the incursion of Mithraism into western Europe and the rise of Christianity.

EARTH'S PHYSICAL RESOURCES. (OUST 325 — 8 hours.) Credit: elective. Prerequisite: OUST 203 or OUST 223 or GSM 101. A one-quarter course which attempts to integrate geological with socio-economic considerations while focusing on some of the wider aspects of resource-based industry. Four fundamental subdivisions: energy resources, mineral resources for the chemical industry, constructional materials, and mineral resources for service and industry.

OFFICE OF SPECIAL PROGRAMS AND MINORITY AFFAIRS

The Office of Special Programs and Minority Affairs coordinates and directs academic support programs and service training programs, operated both on and off campus, which enable the University to provide quality education to all its constituency, to increase employment opportunities for area youth and adults, and to upgrade the quality of life for persons in Metro-East.

THE EAST ST. LOUIS CENTER

The East St. Louis Center is the SIUE campus in East St. Louis, located at 411 East Broadway. It offers the first two years of a baccalaureate program, thus making it possible for students to pursue a degree program at less cost and in a familiar setting. The Center's program is offered through two components, The Experiment in Higher Education (EHE) and the Performing Arts Training Center (PATC).

EXPERIMENT IN HIGHER EDUCATION

The Experiment in Higher Education (EHE) curriculum represents the direct equivalent of the University's general studies program on the freshman and sophomore levels. Course content focuses on knowledge and information which help the student understand his environment. The program is designed to consciously take into account the uniqueness of urban students, who, by the very nature of the communities in which many reside, bring to SIUE, some problem-solving expertise and skills which, when developed, will ultimately enhance the resourcefulness of the total institution.

Thus, through a program housed and administered at the East St. Louis Center, the University seeks to: (1) offer a long term training program by way of a flexible academic curriculum format providing students with a *knowledge* base, a *skills* component and on-the-job training experience through practice of private, public and third sector community activities; (2) equip students with the necessary technical skills to render an immediate and/or short term direct service to the community in such areas as management training, research and technical assistance; (3) provide students and the

community with the necessary community organization skills to inform citizens with data on the resources of the university, city government, state and federal programs, and private industry.

EHE's aim is to present curriculum content vital to the young urban American in terms of a truly contemporary perspective. The curriculum, which is set up by faculty, staff and students, offers the following: non-traditional studies, tailor-made instruction, small classes, classes without walls, guest speakers, student forums and tutoring services.

After completion of the EHE curriculum it is hoped that EHE students will be able to: (1) complete the last two years toward a bachelor's degree at SIUE or any other university; (2) compete academically with other students at any university; (3) devise new approaches to survival; (4) affirm his/her identity and sustain a positive self-concept; (5) better understand the relationship between himself/herself and the larger society; (6) think, read, write effectively; (7) critically analyze and solve problems created by society; (8) understand the basic social institutions; (9) appreciate the cultural arts; (10) maximize his/her creative potential.

The Experiment in Higher Education's work-study program is a conscientious effort to (1) provide students with practical work experiences which are supportive of the academic experiences received at the University, (2) provide financial assistance for a student population unable to support itself by drawing on family financial resources, and (3) give immediate confirmation to the fact that education is applicable to everyday living. The work-study program therefore includes work situations designed to bring about academic and social skills in addition to defraying incidental educational expenses. At present we have students working as education research aides, tutors in various programs, instructor aides and various other rewarding positions.

To provide an effective programmatic bond, the Experiment in Higher Education has individual counseling, academic advisement, and personal contact with instructors. The EHE student is asked to avail himself/herself of these services to better complete his/her academic training.

PERFORMING ARTS TRAINING CENTER

The Performing Arts Training Center is a unique effort to motivate and stimulate the unchallenged young people of the East St. Louis area through the use of an alternative value system and point of view provided through the arts. During its operation in the City of East St. Louis this effort has proved to be an innovative approach to integral, interdisciplinary education and cultural awakening.

The overall objective is to employ a creative and flexible educational methodology in pursuit of the fullest possible humanization and socialization of the individual and the community, through a program which emphasizes the performing and cultural arts as its principal implement.

It has been evidenced that the Performing Arts Training Center has in this way produced in its participants an eagerness for continued learning, teaching, performing, research, and community service as well as a pride in personal growth.

APPROACH

To achieve these objectives, the approach of the Performing Arts Training Center is multi-faceted:

THE PERFORMING ARTS TRAINING PROGRAM

The Center maintains a rigorous schedule of both credit and noncredit classes in the field of Performing Arts, and in subject areas such as Social Sciences, Anthropology, Comparative Political Systems, Comparative Cultures, Languages, Arts and Crafts, Martial Arts, Contemporary Theatre, Theatre Management, Costume Design, Make-up Design, Music and Photography. Thus, courses range from the most elemental arts, crafts, and humanistic studies to the highest levels of artistic and intellectual achievement. The design is to lead the student by experiences of success towards the fullest utilization of his native gifts.

The Performing Arts Training Center enrollment stems from two sources. First, a small yet significant and ever increasing number of degree-seeking students take classes for formal University credit. Secondly, adults, senior citizens, high school and grade school youth and students enroll in the Experiment in Higher Education as well as in the Performing Arts Training Center.

The Performing Arts Training Center and the School of Fine Arts are continually seeking to establish further academic affiliation in an effort to broaden resources and opportunities for the total SIUE community. Certain courses taught at the Center presently receive full credit through the School of Fine Arts.

THE PERFORMING COMPANY

The Performing Company is a semi-professional group, composed of staff and students, embodying the achievement of training, particularly in dance.

THE KUTANA PLAYERS

Originally with Southern Illinois University at Carbondale, the theatrical group presently forms the nucleus of a developing dramatic capacity within the overall training program and provides diverse performance experiences for participants in theatre.

The Center considers the normal fruit of training in both Arts and Humanities to be growth in the capacity to perform well, and recognition of a performance well done. The Performing Companies are thus simultaneously means of cultural enrichment for their audience, stimuli for self-esteem and achievement on the part of students, and symbols of the connection between preparation (education) and performance (life).

THE DYNAMIC MUSEUM

Called "Dynamic" because it reverses the priorities of ordinary museums, the Museum places educational use before matters of acquisition or preservation of treasures. It is the repository of many notable achievements in a people's past, serving the present as a primary source of community pride and individual aspiration to excel. The Performing Arts Training Center

Museum is devoted chiefly to objects pertaining to Black Culture, for the most part associated with Black African Visual Design and the memorabilia of a performing company which has toured for 30 years in 57 countries of the world. It is intended to serve eventually as both a cultural center for the community and a school for training in museum management for the student.

THE COMMUNITY SERVICES PROGRAM

Performance is not the ultimate goal of humanistic education; rather, that goal is service to the community. Through a wide variety of services, involving both students and staff of the Performing Arts Training Center, this goal is simultaneously symbolized and achieved. The role played by the Center as an agent for redirecting dangerous community tensions during 1967, 1968, and 1969 is an extraordinary example of community service. In a more normal example, the staff and students of the Center respond to many requests to bring instruction in the performing arts to elementary and high schools, universities, and community groups in the Greater St. Louis area. The Center serves in other consultant and advisory capacities to the city, state, and local organizations.

UPWARD BOUND

Upward Bound has been a part of Southern Illinois University at Edwardsville for ten years. The mission of this program is to help students in the eleventh and twelfth grades of high school realize the development of their college potential. Upward Bound is federally funded by the Department of Health, Education and Welfare. Our target population attends secondary schools in the East St. Louis metropolitan region.

Students participating in Upward Bound are required to attend classes five days a week during all four quarters of the university year. Our curriculum emphasizes mathematics, English, reading, and the sciences and is wholly college preparatory in scope.

Any student wishing to enter the program may contact our office and ask to be included on the prospective student list. All students in this group will be referred to a recruiting counselor. Program entry dates are June and January.

SCIENCE AWARENESS: A NATIONAL DEMONSTRATION PROJECT

The Science Awareness National Demonstration Project is an alternate high school program for the eleventh and twelfth years operated by Office of Special Programs staff within the campuses of selected area high schools and in the Science Academy housed in the East St. Louis Center of Southern Illinois University at Edwardsville. The purpose of the program, which is funded through the Office of Education, Department of Health, Education, and Welfare, is to provide highly capable and motivated students the essential background in science, mathematics, language arts, and communications skills to insure their success in pursuing baccalaureate programs in science and technology. The ultimate objective of the Project is to increase the number of minority persons engaged in vocations and careers based on the sciences.

Coursework in the Science Awareness Program counts toward students' credits for high school graduation and, in some cases, toward college credits which will be assigned upon matriculation. The format of the Science Awareness Program has been accepted by HEW as a model which will be disseminated nationally for implementation by postsecondary schools in urban areas.

EAST ST. LOUIS CENTER COURSES

101a—4 BASIC SOCIOLOGY. An introduction to the basic principles of sociology. Concentration on the social interaction of individuals with one another and with groups. Comparative study of various types of societies, with special attention to the structure of contemporary industrial societies. Consideration given to the following areas: culture, social class, family, population, institutional life, social control, and social deviation. Analysis of a scientific view of race differences and of minority reactions to dominant groups. Prerequisite: consent of instructor.

101b—4 SURVEY OF WESTERN TRADITION. A study of western civilization thought, philosophy and culture from Africa to Europe. Prerequisite: consent of instructor.

101c—4 ECONOMICS. A historical development of economic ideas and introduction to economic concepts, institutions and problems. Prerequisite: sophomore standing or consent of instructor.

101d—4 THE BLACK EXPERIENCE IN AMERICAN LIFE I. A survey of the black American and his heritage. Facts that reveal an understanding of the present plight of black Americans. Emphasis on the black American's African heritage to the period of slavery in the United States. Prerequisite: consent of instructor.

101e—4 THE BLACK EXPERIENCE IN AMERICAN LIFE II. A survey of the role of the black American in the history of the United States. Emphasis on the period from 1865 to the present. Prerequisite: consent of instructor.

101f—4 HUMAN SERVICES. A survey of the helping professions — counseling, teaching, corrections, law enforcement, court services, welfare, community-based treatment, programs, mental health and employment. People from the various helping professions are invited to come in and introduce students to the services rendered by their agencies and the problems they encounter. Prerequisite: consent of instructor.

102a—4 INTRODUCTION TO BIOLOGICAL SCIENCES (BIOLOGY). An introduction to the science of biology and its major concepts. Emphasis on plant and animal classification, organization, physiology and metabolism in addition to genetics, ecology and evolution. Prerequisite: consent of instructor.

102b—4 INTRODUCTION TO MATH I. Computation with signed numbers: integers, fractions, decimals, algebraic whole numbers. Graphing finite, countable infinite, and continuous infinite sets on the number line. Sets. Hierarchy of operations. Solving simple equations. Prerequisite: consent of instructor.

102c—4 INTRODUCTION TO PHYSICAL SCIENCE (CHEMISTRY). A lecture-discussion designed for the student with no previous chemistry. Concepts presented include: standards of measurement, properties of matter; elements and compounds, atomic theory and structure, periodic table, and formation of compounds. Prerequisite: consent of instructor.

102d—4 INTRODUCTION TO MATH II. Review and extension of 102b. Computation with polynomials. Solution and graphing of equations and inequalities. Finding products, quotients, factoring of monomials and polynomials. Computation with algebraic fractions. Prerequisite: 102b.

102e—4 INTRODUCTION TO PHYSICAL SCIENCE (PHYSICS). Elementary physics at the college level as a study of physical concepts. Introduces the basic laws and principles of physics. Prerequisite: consent of instructor.

102f—4 INTRODUCTION TO MATH III. Solving equations containing algebraic fractions, two variables, and quadratics. Computations involving powers and roots. Prerequisite: 102d.

103a—4 EFFECTIVE COMMUNICATION I. Skills and techniques for reading, writing and

speaking English effectively are practiced. The focus is on composing a variety of sentence patterns and combining sentences. Required of all freshman students. Prerequisite: consent of instructor.

103b—4 EFFECTIVE COMMUNICATION II. Paragraph development and theme structure are studied. Builds on skills and techniques learned in 103a to compose effective paragraphs and themes. Prerequisite: 103a.

103c—4 EFFECTIVE COMMUNICATION III. Research skills are studied in the process of writing a research paper. Extensive study and practice are provided in such areas as using the library, taking notes, synthesizing materials and documenting information. Prerequisite: 103b.

201a—4 AMERICAN POLITICS IN THE WORLD ENVIRONMENT (GOVERNMENT). A survey of the major political trends in the history of the United States. Meets state constitution requirements. Prerequisite: consent of instructor.

201b—4 AMERICAN POLITICS IN THE WORLD ENVIRONMENT (GEOGRAPHY). A study of the basic fundamentals of geography. Prerequisite: consent of instructor.

201c—4 THE INDIVIDUAL AND HIS CULTURAL ENVIRONMENT (PSYCHOLOGY). Surveys modern psychological approaches to individual behavior; includes basic developmental processes such as learning and motivation plus a study of personality and related adjustment problems. Prerequisite: consent of instructor.

201d—4 THE INDIVIDUAL AND HIS CULTURAL ENVIRONMENT (ANTHROPOLOGY). An overview of the major divisions of anthropology — social institutions, socio-cultural theory, archeology, physical anthropology, linguistics, and ethnology. Prerequisite: consent of instructor.

201e—4 TECHNOLOGY AND SOCIETY. Designed to study the interaction of technology on social structure from the Industrial Revolution in England to the present. Prerequisite: consent of instructor.

201f—4 PHILOSOPHICAL MASTERPIECES. Reading and discussion of selected philosophical masterpieces of western and non-western civilizations. Particular emphasis to black writers and masterpieces of non-western civilizations. Prerequisite: sophomore standing.

202a—4 CRITICAL THINKING (LOGIC). Designed to give the student with no science background an understanding of terms and concepts that have appeared in the last fifty years. Further develops into a systematic approach as found in many college texts currently in use. Prerequisite: sophomore standing.

202b—4 STATISTICS. Designed for beginning students in the behavioral sciences. Emphasis on measurement of central tendency and applications of statistical methods. Students taking the course should have a working knowledge of algebra. Prerequisite: completion of 102f.

202c—4 ECOLOGY. A study of living organisms and the environmental factors influencing their diversity and distribution. Prerequisite: completion of 102a.

202d—4 MAN'S BIOLOGICAL INHERITANCE. An introductory genetics course, focusing on the fundamental mechanisms of qualitative and quantitative inheritance. Lecture-discussion focusing on problem solving. Prerequisite: introductory biology course.

202e—5 COLLEGE ALGEBRA. A study of algebraic properties of number systems, polynomials, equations and functions. Prerequisite: completion of 102f.

202f—3 ENVIRONMENTAL AWARENESS. A survey of contemporary issues and problems affecting the biosphere. Field trips are included as an integral part to acquaint the student with environmental engineering techniques, i.e., water treatment, solid waste disposal, housing, etc. Prerequisites: 102a, consent of instructor.

203a—4 ORAL COMMUNICATION. Basic speech skills are practiced. Emphasis on preparing and presenting a variety of speeches. Prerequisite: completion of 103c.

203b—4 INTRODUCTION TO SHORT FICTION. The origin and development of the short story form are explored. The characteristics of short fiction are discussed, and some time is spent researching information about the short story. Prerequisite: completion of 103c.

203c—4 INTRODUCTION TO THE NOVEL. An introduction to the form and development of the novel. Emphasis on the evaluation of selected novels. Prerequisite: completion of 103c.

203d—4 AFRO-AMERICAN LITERATURE. The history and development of Afro-American

literature are reviewed. A study of both the works and author is emphasized. Prerequisite: completion of 103c.

203e—4 AFRICAN LITERATURE. The development and character of African literature are studied. Emphasis on contemporary African literature. Prerequisite: completion of 103c.

203f—4 INTRODUCTION TO POETRY. An introduction to the characteristics of poetry is provided. Emphasis on analysis and discussion of a variety of poems. Prerequisite: 103c.

203g—4 DRAMA LITERATURE. A review of drama in American literature is the subject of study. Focus on plays written by Afro-Americans. Prerequisite: completion of 103c.

203i—4 INTRODUCTION TO THE ESSAY. The essay as a form of literature is studied. This is accomplished through reading and writing essays, with special emphasis on the formal essay. Prerequisite: completion of 103c.

EAST ST. LOUIS CENTER FACULTY

Philip Anala, M.A., Instructor of Experiment in Higher Education

Wilbert Barbee, B.S., Instructor of Experiment in Higher Education

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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 and serves to stimulate and recognize scholarly activity among both students and faculty of the University. 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 present.

Persons selected as Presidential Scholars will:

Receive up to four academic year scholarships covering all tuition and fees for undergraduate programs;

Receive employment as student workers, if desired;

Choose from among a variety of special honors programs to provide outstanding students with individualized programs meeting the highest standards of excellence;

Be assigned a Presidential Scholar Mentor, a faculty member who, by reason of scholarship, interest and sensitivity, is highly qualified to serve as a personal adviser and teacher;

Have the opportunity to participate in special interdisciplinary honors seminars on topics selected by Presidential Scholars;

Become members of the Association of Scholars, a campus-wide organization of faculty members and outstanding students devoted to the promotion of scholarly activity among students, and to the enhancement of the intellectual and cultural life of the University;

Become members of the Dean's College and thus be allowed, with the assistance of a Mentor, to design a unique educational program which frees him/her from the University's general education requirements.

Selection of Presidential Scholars is made by the Presidential Scholars Committee on the basis of the previous academic work and special talents and abilities of the candidates. The program is open to high school students and high school graduates who have never attended college. To be considered for the scholarship, the following information should be submitted: high school transcript, ACT or SAT scores, evidence of special talents or abilities, recommendations from teachers, counselors, etc.

The yearly application deadline is February 1.

Those selected as Presidential Scholars will begin their study in the fall quarter. For further information, please contact the Director of Admissions and Records, Southern Illinois University at Edwardsville, Edwardsville, Illinois 62026. Phone (618) 692-2010.

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