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Southern Illinois University Edwardsville

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# Undergraduate Edition Announcements

 Southern Illinois University at Edwardsville

June 1981  
(USPS 935-420)





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# Announcements

 **Southern Illinois University at Edwardsville**

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June 1981.*

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and October.*

## THIS ISSUE

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 10, Number 4 of the *Southern Illinois University Announcements*.

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

Graduate School Catalog.

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.

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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.

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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# **SOUTHERN ILLINOIS UNIVERSITY**

## **BOARD OF TRUSTEES**

| <i>Name</i>                        | <i>Home Town</i>  | <i>Term Expiration</i> |
|------------------------------------|-------------------|------------------------|
| William R. Norwood, Chairman       | Elk Grove Village | 1983                   |
| A.D. Van Meter, Jr., Vice-Chairman | Springfield       | 1987                   |
| Carol Kimmel, Secretary            | Rock Island       | 1983                   |
| Ivan A. Elliott, Jr.               | Carmi             | 1985                   |
| Crete Harvey                       | Sterling          | 1987                   |
| Harris Rowe                        | Jacksonville      | 1983                   |
| George T. Wilkins, Jr.             | Edwardsville      | 1985                   |
| Mark E. Michalic, Student Trustee  | Carbondale        | 1981                   |
| Rick J. DeStefane, Student Trustee | Edwardsville      | 1981                   |

## **GENERAL OFFICERS OF ADMINISTRATION**

### **Southern Illinois University at Edwardsville**

Earl E. Lazerson, President  
Barbara J. Teters, Vice President and Provost  
Earl S. Beard, Director of Personnel  
James R. Buck, Director of Development and Public Affairs  
James F. Metcalf, Director of Budget  
John R. Reiner, Director of Planning and Resource  
Management  
Luther D. Statler, Director of Supporting Services

### **The Southern Illinois University System**

Kenneth A. Shaw, Chancellor  
James M. Brown, Vice Chancellor

# **UNIVERSITY CALENDAR**

## *FALL 1981*

September 28 (7:30 AM) - December 19  
Thanksgiving — November 22-29  
Final Exams — December 15-19

## *WINTER 1982*

January 4 (4:30 PM) - March 20  
Final Exams — March 16-20

## *SPRING 1982*

March 29 (7:30 AM) - June 12  
Final Exams — June 8-12

## *SUMMER 1982*

June 21 (7:30 AM) - September 4  
June 21 (7:30 AM) - August 14 (eight-week session)  
Final Exams — August 31-September 4

## *FALL 1982*

September 27 (7:30 AM) - December 18  
Thanksgiving — November 21-28  
Final Exams — December 14-18

## *WINTER 1983*

January 3 (4:30 PM) - March 19  
Final Exams — March 15-19

## *SPRING 1983*

March 28 (7:30 AM) - June 11  
Final Exams — June 7-11

## *SUMMER 1983*

June 20 (7:30 AM) - September 3  
June 20 (7:30 AM) - August 13 (eight week session)  
Final Exams — August 30-September 3

# THE UNIVERSITY



## THE SOUTHERN ILLINOIS UNIVERSITY SYSTEM

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

The mission and scope of The Southern Illinois University System is highly complex and emphasizes a commitment to quality education. As the SIU system has grown and flourished, its constituent Universities have developed programs of instruction, research, and public service which have attracted and served students, faculty, and staff not only from the region, but from throughout the State of Illinois and the nation and from overseas as well.

A truly modern and comprehensive post-secondary educational institution, The Southern Illinois University System

has a broad range of academic programs at the associate, baccalaureate, master's, doctoral, and professional degree levels. In addition to the many undergraduate degree programs offered, the constituent Universities support over sixty academic programs which lead to the master's degree, and twenty-two programs which lead to the doctorate. The professional schools are designed to provide quality health and legal personnel and services to the people of the State of Illinois. Southern Illinois University at Edwardsville operates a School of Nursing in Edwardsville and a School of Dental Medicine in Alton, and Southern Illinois University at Carbondale has a School of Law in Carbondale and a School of Medicine headquartered in Springfield. Of the 33,000 students currently enrolled, more than 6,000 are enrolled in graduate and professional programs.

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

## **SOUTHERN ILLINOIS UNIVERSITY AT EDWARDSVILLE**

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 2,600 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 715,000 volumes; 400,000 United States, Illinois, and international organization government documents; 110,000 maps; 15,000 phonograph records; and a number of special research collections. About 25,000 volumes are added annually and there are 5,000 periodical subscriptions. The East St. Louis Library contains over 20,000 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 inter-denominational 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 is considered to be an advantage to the University and to facilitate students' learning and understanding.

Enrollment at Edwardsville the past eight 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.

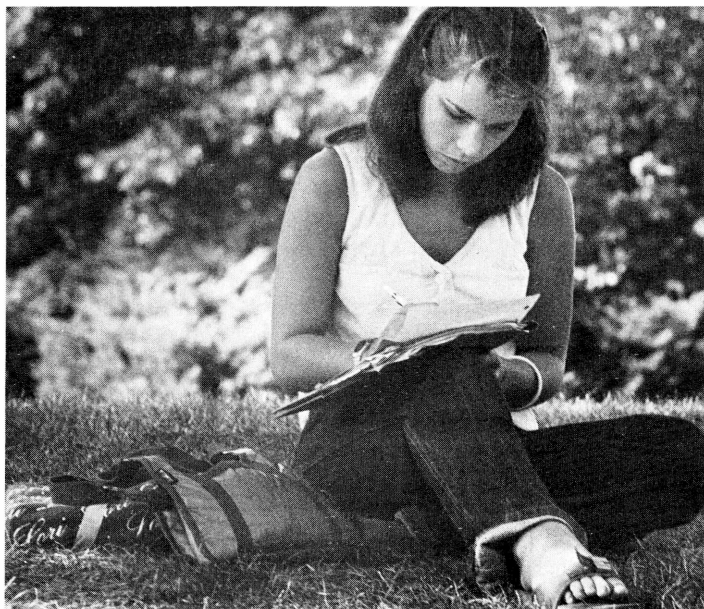
Numerous cultural, entertainment, education, and athletic activities abound in this metropolitan area. The campus is approximately thirty minutes driving time from downtown St. Louis. Interstate Highways 70 and 270 facilitate access to the campus from all parts of the southwestern Illinois region.

The University has received national recognition for its Mississippi River Festival which has completed its twelfth 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.



# 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.

#### REQUIREMENTS FOR ADMISSION OF FRESHMAN STUDENTS

High school students who rank in the upper half of their graduating class or who achieve at that same level on a college entrance examination may be admitted unconditionally to any quarter of the academic year (fall, winter, spring, or summer). Those who rank in the lower half of their graduating class and who score below the 50th percentile on a college entrance exam will be permitted to enter conditionally 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. Admissions granted to students who are still in high school are 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 a college entrance exam and have official scores sent directly to the Office of Admissions and Records from the testing program. ACT is the preferred admission test; however, SAT scores are acceptable.

### **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 24 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 will be for work at SIUE.

Students applying for admission from two-year and four-year institutions are admissible in good standing, provided they have maintained a 3.00 (C) grade-point average at the previous school(s) attended. Those who do not have a 3.00 average, but who are eligible to return to their previous school, may be admitted on scholastic probation. Students who have been dismissed for poor scholarship from other schools may be considered for admission on academic probation, 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 24 quarter hours (16 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 their secondary school study in an academic or pre-university



program and to have completed all post-secondary study in good academic standing (C average). All marks sheets, transcripts, and certificates submitted must bear the original certification of the principal, registrar, or examination board concerned. If you must submit copies of your original marks sheets or certificates, these copies must be certified by the authority issuing the original. All foreign credentials must be submitted in English. Credentials not available in English must be accompanied with an original and attested translation. Official transcripts of all study done in the United States must be sent directly to this office by the principal or registrar of each institution attended.

Applicants whose recognized language of instruction and commerce is not English are required to demonstrate proficiency in the English language. Students must submit either an official Test of English as a Foreign Language (TOEFL) score report (minimum score 500) or a certified copy of their General Certificate of Education (GCE) bearing an O-level Pass in English language (a British credential). Students enrolled in English language programs are also required to request that the director of their program send a confidential evaluation of proficiency to this office. Graduates of U.S. high schools, as well as students holding A.A., A.S., or bachelor's degrees from accredited U.S. colleges and universities, are considered to be proficient in English.

Applicants are also required to demonstrate their financial stability to the satisfaction of the Director of International Education and Adviser. A financial certificate and instructions for its completion are included in the application packet. Questions regarding financial matters should be directed to the Office of International Education.

## **ADMISSIONS PROCEDURES FOR INTERNATIONAL STUDENTS**

The foreign undergraduate application packet is available in the Undergraduate Admissions Office and will be mailed upon request. A detailed explanation of procedures and credentials required is included with the application packet. In brief, the following items are required:

1. Official marks sheets, certificates, or transcripts of all secondary and post-secondary study done in the United States and overseas. Photocopies of original foreign documents must be certified. All credentials must be submitted in English, and necessary translations must be certified. Official transcripts of study done in the United States must be submitted to this office directly by the principal or registrar of each institution attended.
2. Either an official TOEFL score report (minimum 500) or a certified copy of a General Certificate of Education bearing an O-level Pass in English language is required of applicants whose recognized language of instruction and commerce is not English. Students attending English language programs in the U.S. are also required to have a confidential evaluation of proficiency sent to this office by the director of their program.
3. The financial certificate and supporting documents should be returned directly to the Foreign Student Adviser.

All credentials submitted become the property of the University and are not returnable. Students who observe the following deadlines for submitting applications and supporting

credentials can expect to have their files reviewed in a timely manner.

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.

## **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 may obtain information concerning registration appointments by contacting the Enrollment Center, John S. Rendleman Building, Room 1308.

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 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. If 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 are contained in this section.

Ordinarily, determination of residence status is made by the Office of Admissions and Records from evidence furnished on the 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.

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

### 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 services, 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 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. It is strongly recommended that each student who has not officially declared a major receive advisement through the Office of Academic Advisement each term of attendance. All new freshmen and transfer students entering Fall Quarter, 1981, and any quarter thereafter, are required to be advised each quarter until official declaration of major occurs. These students will be allowed to register only after they have been advised.

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.

### 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.

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 the Office of Admissions and Records.

## ADDING AND DROPPING COURSES

Any change in a student's schedule must be made in the Enrollment Center, Room 1308, John S. Rendleman Building. A student is officially registered for only those courses and sections appearing on his or her registration documents, as modified by any program changes which he or she may have made.

Any student desiring to make a program change must go to the Enrollment Center where he or she must present a fee receipt card and fill out the program change form. **NO CHANGE IS OFFICIAL UNTIL THE PRECEDING PROCEDURE IS COMPLETED.** The fee receipt card and ID card are needed to make program changes. Changes for Resident Center students can be made at the individual centers following the same procedure.

If a student wishes to drop all of his/her classes, this is considered withdrawing from school; and the transaction should be initiated according to the instructions under Withdrawal from School.

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

Specific guidelines on adding classes are as follows:

1. A student may add any "open" class or any "closed" class for which a Class Permit Card is available through the first week of the term.
2. A student may add a class during the second week of the term only upon presentation of a Class Permit Card.
3. The only added classes permitted after the second week are those courses which start after that time, e.g., a workshop, independent readings, etc.

For program change dates, see the Registration Calendar.

## DROP SCHEDULE

Weeks 1 & 2 - Student may drop without permission and have no entry on transcript.

Weeks 3 - 5 - Student may drop without permission. Grade of W automatically assigned.

Weeks 6 - 8 - Student may drop after consultation with instructor and adviser, but grade of WP or WE must be assigned by instructor; WE will be computed as an E for GPA.

After Week 8 - Student may not drop classes.

## TUITION AND FEES

Certain fees shown below are currently under revision and may be assessed at different amounts by the effective date of this publication.

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.



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

|                                    | Not more<br>than 5 hrs. | More than 5,<br>fewer than 12 | 12 or<br>more |
|------------------------------------|-------------------------|-------------------------------|---------------|
| Tuition - Illinois Resident .....  | \$ 77.00                | \$ 154.00                     | \$ 231.00     |
| Tuition - Out-Of-State Resident*   | (231.00)                | (462.00)                      | (693.00)      |
| Book Rental Fee .....              | 4.00                    | 7.00                          | 10.00         |
| Student Welfare and Activity Fee   | 11.75                   | 20.45                         | 20.45         |
| University Center Fee .....        | 28.50                   | 32.00                         | 35.50         |
| Athletic Fund Fee .....            | 7.00                    | 13.00                         | 19.00         |
| Student-to-Student Grant .....     | 1.50                    | 1.50                          | 1.50          |
| <hr/>                              |                         |                               |               |
| Total - Illinois Resident .....    | \$ 129.75               | \$ 227.95                     | \$ 317.45     |
| Total - Out-of-State Resident .... | (283.75)                | (535.95)                      | (779.45)      |

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. To obtain a refund, go to the Student Work and Financial Assistance Office in the John S. Rendleman Building.

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

|  | More than 5,<br>fewer than 12 | 12 or<br>more |
|--|-------------------------------|---------------|
| Tuition - Illinois Resident .....      | \$ 154.00                     | \$ 231.00     |
| Tuition - Out-of-State Resident* ..... | (462.00)                      | (693.00)      |
| University Center Fee .....            | 32.00                         | 35.50         |
| Textbook Rental Fee .....              | 7.00                          | 10.00         |
| Program Fee .....                      | 19.50                         | 28.00         |
| <hr/>                                  |                               |               |
| Total - Illinois Resident .....        | \$ 212.50                     | \$ 304.50     |
| Total - Out-of-State Resident .....    | (520.50)                      | (766.50)      |

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<br>than 5 hrs. | More than 5,<br>fewer than 12 | 12 or<br>more |
|--|-------------------------|-------------------------------|---------------|
| Tuition - Illinois Undergraduate               | \$ 77.00                | \$ 154.00                     | \$ 231.00     |
| Tuition - Illinois Graduate .....              | 83.00                   | 165.00                        | 249.00        |
| Tuition - Out-of-State<br>Undergraduate* ..... | (231.00)                | (462.00)                      | (693.00)      |
| Tuition - Out-of-State Graduate*               | (249.00)                | (495.00)                      | (747.00)      |
| University Center Fee .....                    | 28.50                   | 32.00                         | 35.50         |
| Resident Center Fee .....                      | 14.00                   | 25.50                         | 36.00         |
| <hr/>  |                         |                               |               |
| Total - Illinois Undergraduate                 | \$ 119.50               | \$ 211.50                     | \$ 302.50     |
| Total - Illinois Graduate .....                | \$ 125.50               | \$ 222.50                     | \$ 320.50     |
| Total - Out-of-State<br>Undergraduate .....    | (273.50)                | (519.50)                      | (764.50)      |
| Total - Out-of-State Graduate ...              | (291.50)                | (552.50)                      | (818.50)      |

\*See Special Tuition Rates for Missouri Residents, following.

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.

## SPECIAL TUITION RATES FOR MISSOURI RESIDENTS

The following tuition schedule has been established for students who are legal residents of the State of Missouri:

|               | 1 to 5<br>hours | 6 to 9<br>hours | 10 to 11<br>hours | 12 hours<br>or more |
|---------------|-----------------|-----------------|-------------------|---------------------|
| Undergraduate | \$77.00         | \$154.00        | \$462.00          | \$693.00            |
| Graduate      | \$83.00         | \$165.00        | \$495.00          | \$747.00            |

Fees charged are the same as for all students.

## 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 most of the basic instructional texts which have been designated by the department faculty through their respective department heads. In some cases, students may be required to purchase additional books.

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 most 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 from 5:00 to 9:00 p.m. Monday through Thursday and from 9:00 a.m. to 12 noon on Saturday. No withdrawal will be permitted after the eighth week of school. **A refund of fees is permitted only if the withdrawal and refund requests are officially completed within the first two weeks of the quarter.** Students who do withdraw from the University within the first ten days of a term receive 100% refund of tuition and refundable fees; no refund is made after that deadline.

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.

## 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. Single students should apply at least seven months prior to the quarter desiring housing. Family students must wait at least eight months before being assigned to Tower Lake Apartments.

Students living outside a specified 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 1,300 single students and 168 families. The units are furnished two- and three-bedroom co-op apartments designed for three or four single students 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. Resident housing staff members are available to assist in problems residents encounter in their living situation. The Commons Building provides meeting rooms, lounge area, social facilities, snack bar, and maintenance and administrative offices. Further information concerning application procedures can be obtained by writing the Housing Office, Southern Illinois University, Edwardsville, Illinois 62026.

### RENTAL RATES\*

Rates for Family Students per month: Two-Bedroom, Unfurnished \$200; Two-Bedroom, Furnished \$230; Three-Bedroom, Unfurnished \$225; Three-Bedroom, Furnished \$250.

Rates for Single Students per month: Two-Bedroom, 4 single students per unit \$78; Three-Bedroom, 3 single students per unit \$129.

\*Rental rates listed are subject to change.

### 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 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 programs 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.



### 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.

**Upper Deck Restaurant.** Located on the second floor, the Upper Deck 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.

**Sub-Meridian Dock.** The Sub-Meridian 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 there's a rush.

**Catering Service.** 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 Service operations are open to students, faculty, staff, and community guests. For information about any of the Food Service areas, please call 692-3040.

## BOOKSTORE

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.

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, cosmetics, drug, and grooming aids. A current selection of 190 magazine titles covers a vast array of subjects.

## RECREATION FACILITIES

Enjoy yourself. Bowling, billiards, table tennis, and a host of other activities including electronic games, 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 may want to participate in our regular leagues and tournaments or organize your own.

**Campus Leagues and Clubs.** The Recreation Center hosts many organized leagues, tournaments, and instructional programs, including Physical Education Classes (Bowling and Billiards), Student Bowling Leagues (Ladies', Men's, and Mixed), Faculty/Staff Bowling Leagues (Mixed), and the SIUE Bowling Club (Intercollegiate Team Competition).

**Community Outreach Programs.** As a community service, the Recreation Center has set aside special days and times for senior citizen group usage at discounted rates. Bowling, billiards, table tennis, and a host of other activities, including electronic games, chess, checkers, and backgammon, are available. Senior citizen groups may make reservations for Monday through Thursday from 2:30-5:00 p.m. or anytime

Friday between 10:00 a.m. and 5:00 p.m. Instructors are available free of charge. Also, individual senior citizens are welcome to drop in anytime and receive a 10% discount from regular rates.

**Noncredit instruction.** Noncredit instructional programs are now available to individuals from both the University and area communities. Check out the Ladies' Daytime Learn-to-Bowl Program, the Saturday Morning Junior Programs or the Adult Mixed League.

Facilities are available at attractive rates to all University students, faculty, and staff, as well as to individuals and groups from our surrounding communities. For information regarding reservations, leagues, or rental of our facilities, please call 692-3120.

## CRAFT SHOP

The Craft Shop is the place to go when you get an urge to try something creative with arts or crafts. Interest is the only prerequisite because the Craft Shop offers the facilities, equipment, supplies, and instruction to accomplish the simplest or most complex project.

If your interest grows, the Craft Shop offers a wide selection of six-week, noncredit workshops each quarter which cater to the inexperienced. Courses include stained glass, photography, pencil drawing, acrylic painting, cartooning, macrame, ceramics, frame loom weaving, quilting, and much more. Children's workshops are also offered.

A new feature of the Craft Shop is the introduction of mini-workshops which provide an opportunity to complete a small craft project over the lunch hour while enjoying a provided sack lunch. These one-session workshops will include cake decorating, candle making, gingerbread houses, stained glass Christmas ornaments, and more.

In addition to its various workshops, the Craft Shop offers many miscellaneous services. For instance, the Craft Shop's printing and duplicating services run the gamut from poster making and photocopying to production of transparencies, flyers, brochures, and invitations. The Craft Shop offers laminating, T-shirt imprinting, button making services, and darkroom facilities. With few exceptions, the use of tools and equipment is free. Supplies are available at moderate cost.

Craft Shop facilities and workshops are available to all students, faculty, and staff, as well as individuals and groups from our surrounding communities. For information regarding our services or workshops, contact the University Center Craft Shop at 692-2178.

## 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

The University Center has dedicated over 10,000 square feet to various lounge settings, including a second-floor television room, the Opapi reading room, and the central Goshen Lounge areas. A stroll through the new Art Gallery with its monthly exhibits is also a treat.

## 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.

## 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 at 692-2617.

## 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 Grant Program, Illinois State Scholarship Commission monetary 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 preferential filing 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 preferential filing 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 Grant Program. 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 and state regulations require that recipients of student financial aid must maintain satisfactory academic

progress. The policy in effect for SIUE appears later in this section.

For *all* financial aid loan and grant programs, the authorized quarterly payment is prorated according to the following schedule:

|                           |                         |
|---------------------------|-------------------------|
| Undergraduate students:   |                         |
| Full award — 100%         | 12 or more credit hours |
| Three-quarter award — 75% | 9-11 credit hours       |
| Half-time award — 50%     | 6-8 credit hours        |
| Graduate students:        |                         |
| Full award — 100%         | 8 or more credit hours  |
| Half-time award — 75%     | 6-7 credit hours        |

## 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. Repayment begins seven months from the date the borrower ceases to attend school on at least a half-time basis. Interest at the rate of four percent begins to accrue at the time of repayment. A ten-year period in which to repay the loan may be available. Cancellation of the loan for full-time teaching is also available to qualified students. Payment can be deferred under certain circumstances.

Eligible undergraduate students may receive \$1,200 per academic year. Total amount of all undergraduate loans may not exceed \$6,000. Eligible graduate students may receive \$2,250 per academic year. Total amount of all loans, undergraduate and graduate, may not exceed \$12,000.

### SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANTS

The basic purpose of the Supplemental Educational Opportunity Grant (SEOG) Program is to assist students with demonstrated financial need who are from low to moderate income families and who would be unable to enter or remain in school without this financial aid. The grant does not require repayment. There is an expected self-help concept. This means students must also normally accept either work or loan.

### 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 a long-term,

low-interest loan and scholarship. 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 \$2,000 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 \$2,500 per academic year with a total loan not exceeding \$10,000.

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 may be available with repayment beginning nine months after leaving school. Cancellation provisions for working as a full-time nurse have been repealed for loans made on or after September 29, 1979. Repayment may be deferred up to five years during periods spent as a full-time student pursuing advanced professional training.

### LAW ENFORCEMENT EDUCATION PROGRAM GRANTS AND LOANS

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.

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.

NOTE: Due to federal funding restrictions, only students who receive LEEP funds during the prior academic year are eligible for award consideration during 1981-82.

### BASIC GRANT (PELL GRANT)

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 Basic Grant 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. 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 hours or more) range up to \$1,900 per academic year. Most students utilize their full entitlement for Basic Grant during the Fall, Winter, and Spring Quarters. However, those students who do not attend on a full-time basis during each of these quarters may have remaining eligibility for a summer quarter Basic Grant. Contact the Basic Grant Coordinator for more information.

*Note: Effective with the 1982-83 academic year the Basic Grant Program will be renamed Pell Grant Program.*



## 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.

### ISSC ACADEMIC SCHOLARSHIP AWARD PROGRAM

Legislation passed in 1979 provides for the identification of 2,000 high school seniors to be the recipients of \$1,000 renewable Academic Scholarship Awards. Financial need is not a selection criterion.

There are two methods by which students may be winners; through the open competition as participants in the State Scholar Program or designated by the high school. After award recipients are identified through the open competition, each high school will be given the opportunity to designate from one to three award recipients based upon class size.

Awards are renewable for a total of eight semesters or twelve quarters of full-time undergraduate enrollment within a six year period from the date of the initial award. Awards may be used only at ISSC approved institutions of post-secondary education. Initial enrollment at an out-of-state or unapproved institution permanently disqualifies the award recipient.

Payment will be made to the institution each term after certification by the institution of full-time enrollment. Awards are not limited to payment of tuition and fees but may be applied to any educational expense. Awards are contingent upon annual appropriation of funds by the Illinois General Assembly.

### 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, saving and loan associations, credit unions, etc. All students, regardless of family income, are automatically eligible for federal interest benefits. For any first time student borrower obtaining a loan under IGLP which applies to periods of instruction beginning after January 1, 1981, the interest rate shall be 9%. Student borrowers with outstanding 7% loans will still be limited to a maximum interest rate of 7% on additional loans. Students having loans at the 7% rate will continue to have available to them a 9-month grace period. Students having loans at a 9% rate will be eligible for a 6-month grace period. Eligible dependent and independent undergraduates may borrow \$2,500 and \$3,000 per academic year, respectively. Total amount of all undergraduate loans may not exceed \$12,500 for dependent students and \$15,000 for independent students.

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

Guaranteed Student Loans are also 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 to eight weeks.

### PARENT LOANS FOR UNDERGRADUATE STUDENTS (PLUS)

The Education Amendments of 1980 authorize this new loan program under which parents can borrow up to \$3,000 per undergraduate dependent child, not to exceed the cost of attendance minus any financial aid, with a cumulative maximum of \$15,000 per child. The interest rate on the parent loan is nine percent and repayment is required to begin within 60 days after disbursement. The PLUS Loan will be available Fall Quarter 1981.

### 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 Assembly 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 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.

### TUITION SCHOLARSHIP AWARD

The Board of Trustees of the University provides a limited number of tuition scholarship awards 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 scholarships are authorized by the Office of Student Work and Financial Assistance. NOTE: Illinois residents are required to first apply for the Illinois State Scholarship Commission 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. Applications are available in the Office of Student Work and Financial Assistance.

## 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. 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.

## SATISFACTORY ACADEMIC PROGRESS

Federal and state regulations concerning eligibility for financial aid require that students make satisfactory academic progress toward a degree at Southern Illinois University at Edwardsville. The major factor in this regard is the number of SIUE credit hours actually completed with letter grades each quarter in which financial aid is received. The following policies are currently in effect.

Undergraduate students who receive any form of federal student financial aid, the ISSC Monetary Award, Guaranteed Student Loans, SIUE Foundation Loans or Grants, Student to Student Grant, or SIUE Tuition Waiver or Scholarship must complete the following minimum total (cumulative) credit hours during the specified number of terms on financial aid at SIUE.

| Years in Attendance<br>at SIUE | Total Terms Receiving<br>Financial Aid | Required Cumulative<br>Credit Hours |
|--------------------------------|--|-------------------------------------|
| 1                              | 3                                      | 24                                  |
| 2                              | 6                                      | 54                                  |
| 3                              | 9                                      | 90                                  |
| 4                              | 12                                     | 126                                 |
| 5                              | 15                                     | 168                                 |
| 6                              | 17                                     | 196                                 |

Any undergraduate student, for example, who has attended SIUE full-time for 3 quarters and received financial aid for three quarters must have a minimum of 24 quarter hours credit to remain eligible for financial aid for the next year. Students who, for example, only have 22 hours after three quarters of attendance would have to pay their own way one quarter (Summer) in order to get to the 24 quarter hour

minimum and regain eligibility for financial aid the next quarter (Fall).

## SIUE POLICY STATEMENT REGARDING REFUNDS AND DETERMINATION OF "OVERPAYMENT" STATUS OF FEDERAL STUDENT FINANCIAL AID RECIPIENTS

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

Those students who terminate attendance after the tuition and fee refund date but have received financial aid may be considered to have been "overpaid". The SWFA Office will make this determination taking into account the week of withdrawal, the student's college cost budget, and the amount of financial aid received in the payment period.

Students who are in an overpayment status will be advised in writing of such overpayment and will be asked to repay immediately. Contact the Student Work and Financial Assistance Office regarding the complete policy.

## STUDENT CONSUMER INFORMATION HANDBOOK

Title IV of the Education 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 is preparing a Consumer Information Handbook which will include 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. It is important that students understand their rights, as well as what is expected as recipients of financial aid. Once the handbook is available we strongly encourage students to phone, write, or visit the Student Work and Financial Assistance Office, Room 2308, John S. Rendleman Building, to secure a copy.

## 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, 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 of 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-<br>pendents | 1 De-<br>pendent | 2 De-<br>pendents | Each Addi-<br>tional De-<br>pendent |
|------------------|--------------------|------------------|-------------------|-------------------------------------|
| 12 or more hours | \$342              | \$407            | \$464             | \$29                                |
| 9 - 11 hours     | 257                | 305              | 348               | 22                                  |
| 6 - 8 hours      | 171                | 204              | 232               | 15                                  |

## 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 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 admissions 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 Academic Resource 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. 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 Reps" communicate directly with the V.A. Regional Office in Chicago on any problem relating to V.A. matters.

## TUITION AND FEE DEFERMENT POLICY

Students wishing a deferment of their tuition and fees because they anticipate receipt of some type of student financial aid (excluding College Work Study and student work) may apply for a deferment at the Office of Student Work and Financial Assistance, Rendleman Building, Room 2308.

Deferments will be issued only at time of registration as published in the Registration Calendar. Students must have proof of financial aid when applying for a deferment. Students must also present their fee receipt card and fee assessment card and sign a promissory note.

Tuition and fee deferments will not be issued to students who are on accounts receivable with the University. However, deferments may be issued to students on accounts receivable if they have a verified financial assistance package through Student Work and Financial Assistance in amounts equal to or greater than their total debt to the University plus the amount of tuition and fees they request to be deferred. Further, a \$25.00 penalty will be charged to deferments not paid by the established deadline.

Veterans who are awaiting results of Illinois Veterans Scholarship or V.A. benefits should contact the Office of Veterans Affairs to obtain a deferment.

Foreign students should contact the Foreign Student Advisor to arrange a deferment.

Students attending the East St. Louis Center should contact the Student Development Services Office at the East St. Louis Center.

Students with extreme personal or financial hardship who do not qualify for any form of financial aid may contact the Office of the Dean of Students to apply for a hardship deferment.

## CRITERIA FOR A HARDSHIP DEFERMENT

1. You must not be on accounts receivable with the University. If you are currently on accounts receivable, it will be necessary for you to pay the accounts receivable and present a paid receipt for the amount at the time of applying for a deferment.
2. If you have had deferments in the past, your records must show that you have paid those deferments by the established deadline.
3. You must be in good academic standing. Students on academic probation are not eligible for a hardship deferment.

At the present time, University policy concerning refunds is a full refund if withdrawal occurs during the first two weeks of the quarter. NO refund of fees is granted if a student withdraws after the first two weeks of the quarter. Those students seeking and receiving deferments should be aware that the same policy applies to them.

A \$25.00 late penalty will be charged to students who fail to pay their deferred fees by the Wednesday of the sixth week of the term as stated in the promissory note.



# SERVICES FOR STUDENTS AND STUDENT ACTIVITIES



**DEAN OF STUDENTS**  
**COUNSELING AND TESTING CENTER**  
**UNIVERSITY PLACEMENT SERVICES**  
**HEALTH SERVICE**  
**RAPE AND SEXUAL ABUSE CARE CENTER**  
**SERVICES FOR THE HANDICAPPED**  
**OFFICE OF INTERNATIONAL EDUCATION**  
**IDENTIFICATION CARDS**  
**PARKING REGULATIONS**  
**PARKING FOR THE HANDICAPPED**  
**STUDENT ACTIVITIES OFFICE**  
**STUDENT ORGANIZATIONS**  
**CAMPUS RECREATION**  
**MEN'S INTERCOLLEGIATE ATHLETICS**  
**WOMEN'S INTERCOLLEGIATE ATHLETICS**  
**RELIGIOUS CENTER**  
**UNIVERSITY POST OFFICE**

## CHAPTER 2

### STUDENT SUPPORT SERVICES

The University desires that every student have an opportunity to benefit in the fullest manner from the University experience. Pursuit of the primary objective, educational attainment, is supported by the collective function of various student services and extra-curricular programs and activities. The University thus provides an integrated approach to the satisfaction of student needs within a broad based environment designed to promote growth and development.

### DEAN OF STUDENTS

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

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

### 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 Program (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.

## 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.

## 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.

## 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.

## SERVICES FOR THE HANDICAPPED

The Coordinator of Handicapped Services has an office located within the Central Affirmative Action Office in Room 3202 of the John S. Rendleman Building. The Coordinator is responsible for implementation and coordination of many of the programs, activities, and services affecting handicapped individuals at SIUE. All persons are invited to visit the CAAO at their earliest convenience to meet the Coordinator and discuss programming which is available to the handicapped individual.

The Coordinator offers guidance and counseling to handicapped students at SIUE, as well as referrals to related offices and departments. Assistance is given in obtaining specialized equipment and supplies, working out individualized needs, and the general transition for the handicapped student to the college atmosphere.

For more information, all handicapped individuals are invited to visit the Coordinator in the CAAO or call 692-2512.

## OFFICE OF INTERNATIONAL EDUCATION

The Office of International Education, which includes the Foreign Student Adviser's office, is located in the John S. Rendleman Building. Services furnished by this office include guidance and counseling from the time a prospective foreign student applies for admission throughout the period of attendance at SIUE. Prior to the student's arrival, financial evaluation and advice are sent by mail, and information to familiarize the student with the area is provided upon admission. After arrival, orientation sessions, either group or personal, are conducted and counseling concerning 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. Initial and on-going academic advisement is provided as necessary, along with a liaison relationship with academic schools, departments and faculty to insure that students maintain satisfactory academic progress. Throughout the year events are programmed through cooperation with this office and the International Students Council. Coordination with the International Hospitality Program is provided for foreign students desiring host family relationships.

Study Abroad facilities for American students and scholars are maintained in this office.

## IDENTIFICATION CARDS

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

## PARKING REGULATIONS

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

All violations on a registered vehicle are the responsibility of the person in whose name the decal is issued. Tickets issued on a non-registered vehicle belonging to members of the student's immediate family will be the responsibility of the student. Tickets may be paid and appeals filed at Vehicle Registration.

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

Brochures of the complete motor vehicle regulatory policies are available at the Vehicle Registration area in the Office of the Bursar.

## PARKING FOR THE HANDICAPPED

Certain areas have been set aside as designated parking areas for the handicapped. Specific license tag markings identify the automobiles of legitimate users of these spaces in the pay parking lots; specific decals featuring the international handicapped symbol are required to use the restricted areas in decal lots. Use of these spaces by the non-handicapped is considered a violation of University parking regulations, and citations are issued. Information on obtaining special decals is available from the Vehicle Registration Office.

## 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 1980-81, the following organizations were registered by Student Government.



## ALL-UNIVERSITY ORGANIZATIONS

- Aletheia
- Cheerleaders
- Community Involvement Project
- Cougar Guard (Campus Mascot)
- Fraternity-Sorority Conference
- Honor Society of Phi Kappa Phi
- Major Events Council
- Student Government
- Tower Lake Area Council
- University Center Board

## FRATERNITIES

- Alpha Phi Alpha
- Alpha Phi Omega
- Delta Chi
- Iota Phi Theta
- Kappa Alpha Psi
- Omega Psi Phi
- Epsilon Beta Gamma, Fraternity
- Sigma Phi Epsilon
- Sigma Pi
- Tau Kappa Epsilon
- Zeta Alpha Phi
- Zeta Phi Theta, Fraternity



## SORORITIES

Alpha Kappa Alpha  
Alpha Phi  
Alpha Sigma Tau  
Delta Sigma Theta  
Gamma Sigma Sigma  
Phi Chi Theta  
Sigma Gamma Rho

## SPECIAL INTEREST GROUPS

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

## PROFESSIONAL AND HONORARY ORGANIZATIONS

Activities Honor Society  
Administrative Management Society  
American Chemical Society  
American Society of Civil Engineers  
Arnold Air Society  
Association of Scholars  
Beta Gamma Sigma (Business)  
Biology Honors Society  
Delta Sigma Pi (Business)  
Eta Kappa Nu (Electrical Engineering)  
Honor Society of Nursing  
Institute of Electrical and Electronics Engineers  
Kappa Delta Pi (Education)  
Lambda Alpha (Anthropology)  
Mu Phi Epsilon (Music)  
National Student Speech and Hearing Association  
Pi Mu Epsilon (Mathematics)  
Pi Omega Pi  
Preprofessional Honors Society

Society of Professional Journalists (Sigma Delta Chi)  
Student Council for Exceptional Children  
Student Planning Association

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.

## 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 twelve tennis courts. Six tennis courts are lighted and are available until 10 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, tennis, 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, and in 1979 they were NCAA national champions. A number of soccer players have been selected as United States Olympic Team players. Many soccer alumni play in the professional leagues.

In 1978, 1979, and 1980 the tennis team captured the NCAA National Championship of Division II schools.

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

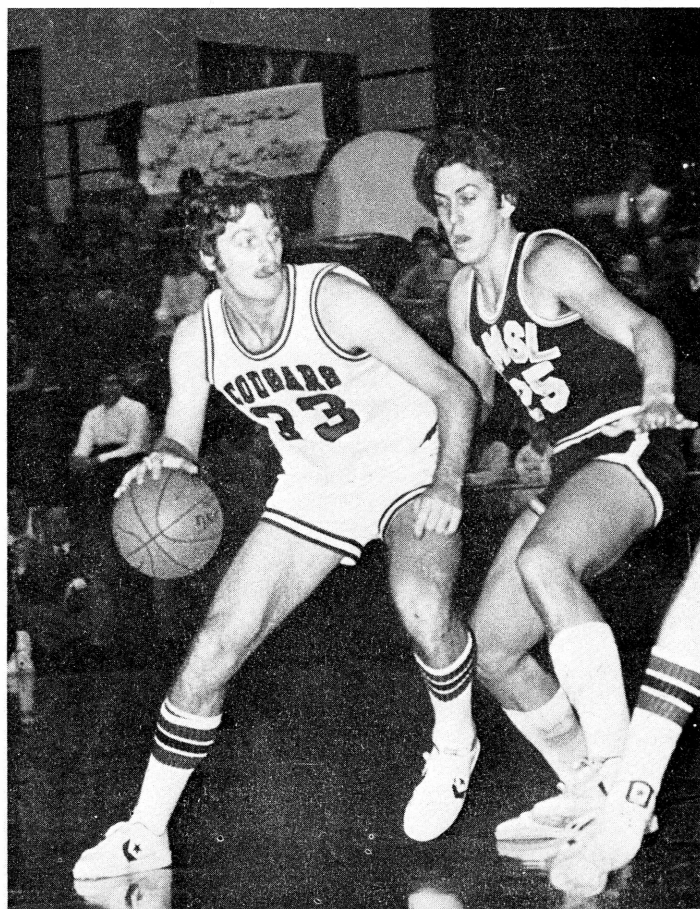
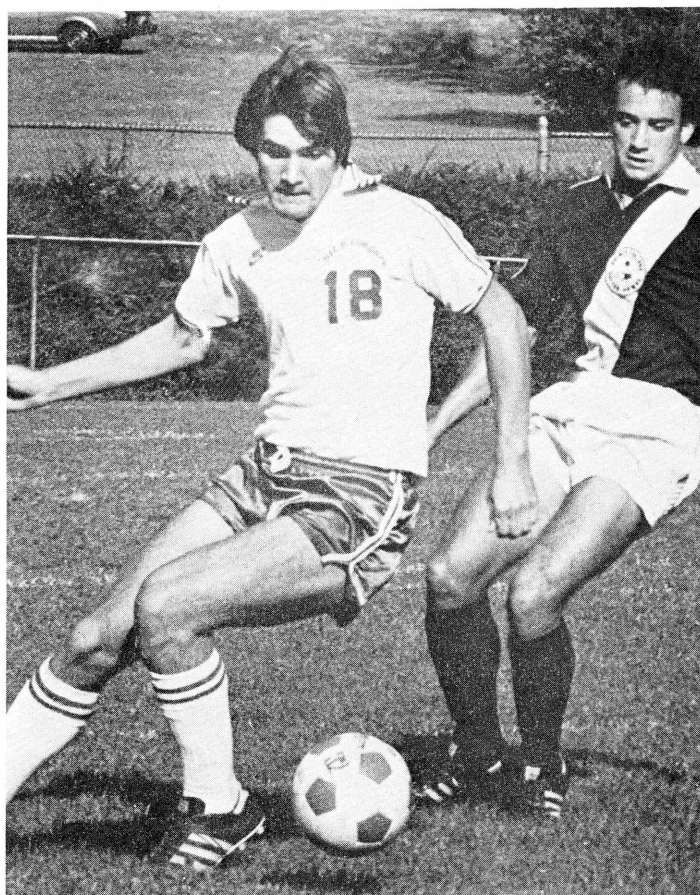
SIUE baseball teams have reached the final round of the Division II Baseball Championship, and are perennial contenders for this crown. A number of baseball alumni play in the professional leagues.

Facilities for home contests include a 4,000 seat field enclosed for soccer, a 1,500 seating capacity enclosed for baseball contests, a cross country course, and a quarter-mile track. The wrestling team holds its home meets in the ballroom of the University Center. Twelve tennis courts serve as the site for home tennis matches. The golf team utilizes area courses 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 clubs, 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 regarding Women's Athletics contact the Athletic Office.



## 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.

Six 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.

## 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 except no Friday afternoon delivery. 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.

# ACADEMIC INFORMATION



**DEGREES AND MAJORS**  
**GRADUATION REQUIREMENTS**  
**ACADEMIC REGULATIONS**  
**GRADING SYSTEM**  
**TRANSCRIPTS**  
**PROFICIENCY EXAMINATIONS**  
**ADVANCED PLACEMENT PROGRAM**  
**COLLEGE LEVEL EXAMINATION PROGRAM**  
**PASS/NO CREDIT POLICY**

## 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 Accountancy, 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 5.

|                                     |                                       |
|-------------------------------------|---------------------------------------|
| Accountancy                         | History                               |
| Aerospace Studies <sup>1</sup>      | Human Services                        |
| American Studies                    | Instructional Technology <sup>1</sup> |
| Anthropology                        | Italian <sup>1</sup>                  |
| Art                                 | Language Arts                         |
| Art and Design                      | Latin American Studies <sup>1</sup>   |
| Biological Sciences                 | Liberal Studies                       |
| Black American Studies <sup>1</sup> | Mass Communications                   |
| Business Administration             | Mass Communications                   |
| Business Economics                  | in a Democratic Society <sup>1</sup>  |
| Business Education                  | Mathematics, Statistics, and          |
| Chemistry                           | Computer Science                      |
| Classical Studies <sup>1</sup>      | Music                                 |
| Coaching <sup>1</sup>               | Nursing                               |
| Comparative Literature <sup>1</sup> | Peace Studies <sup>1</sup>            |
| Construction                        | Philosophy                            |
| Early Childhood Education           | Physical Education                    |
| Earth Science                       | Physical Science                      |
| Economics                           | Physics                               |
| Elementary Education                | Psychology                            |
| Engineering                         | Recreation                            |
| English                             | Russian <sup>1</sup>                  |
| Environmental Science <sup>1</sup>  | Social Work                           |
| Environmental Systems Technology    | Sociology                             |
| Foreign Languages                   | Special Education                     |
| General Science & Mathematics       | Speech Communication                  |
| Geography                           | Speech Pathology and Audiology        |
| Government                          | Theater                               |
| Health Education                    | Women's Studies <sup>1</sup>          |

<sup>1</sup>Minor 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.

## **GRADUATION APPEALS COMMITTEE**

The University has a Graduation Appeals Committee whose function is to hear students' petitions to be permitted to graduate even though they have not satisfied all University graduation requirements. The committee hears only those cases involving University requirements for a baccalaureate degree. Appeals relative to a major or academic unit requirement are made through the appropriate administrative official. Ordinarily, the Graduation Appeals Committee will give consideration to an appeal only if there is tangible evidence that the 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.

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 candidate for the degree must also complete a minimum of 48 quarter hours in residence at Southern Illinois University at Edwardsville, as well as meeting all degree program requirements. Any exceptions must be applied for by the student and submitted to the Graduation Appeals Committee.

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. Students seeking teacher certification must complete one of the required courses.

## **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, Edwardsville, Illinois 62026.

## **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 and 500-level courses may not be counted toward a baccalaureate degree, unless approved by the Graduate School.

### **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.

Students with a 4.25 grade-point average or above for the preceding quarter may be allowed by the dean of their academic unit to take as many as 21 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 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:

- They complete three successive quarters of C average or better work, at which time they will be returned to Scholastic Warning; or
- 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. Those who received bachelor's degrees the previous August, December, or March and had an SIUE grade-point average of 4.50 or higher or who are candidates for a bachelor's degree in June and have an SIUE grade-point average of 4.50 or higher are honored. All others must be registered for the spring quarter and have the following SIUE grade-point average: Seniors — 4.50 or higher; Juniors — 4.50 or higher; Sophomores — 4.25 or higher; Freshmen — 4.25 or higher. In addition **all** students in order to be eligible for Honors Day must have completed 24 hours passed and calculated at Southern Illinois University at Edwardsville. 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).

## PLAGIARISM

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

Normally a student who plagiarizes shall receive a grade of E in the course in which the act occurs. The offense shall also be reported to the Vice President and Provost. A student who is reported a second time shall be suspended from the University for a period of not less than one quarter. If a student who has been suspended for plagiarism is readmitted and is again found guilty of the offense, he/she shall be permanently expelled from the University.

Administrative responsibility for handling complaints, allegations, or grievances against students concerning plagiarism is a function of the Office of the Dean of Students.

## 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 calculated and earn a minimum grade average of 4.50 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. Student did not complete all work required for the course during the term, and has the permission of the instructor to do so within a specified time period. (NOTE: See the details of the policy on "INCOMPLETE" grades, following.)
- DEF—Deferred. Used only for graduate courses of an individual continuing nature such as thesis or research.
- S—Satisfactory. Used for noncredit courses and thesis.
- U—Unsatisfactory. Used for noncredit courses and thesis.
- AU—Audit. No grade or credit hours earned.
- PASS—Used for courses taken under Pass/No Credit option. 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.



## **POLICY ON "INCOMPLETE" AND DEFERRED GRADES**

Unless the instructor has specified a shorter period of time, an incomplete grade which is not completed within one year will automatically be changed to an "E" (graduation not withstanding). If an instructor specifies a shorter period of time, he/she must communicate that stipulation in writing—with copies to the Admissions and Records Office and the instructor's unit head—to the student at the time the incomplete is granted. Any student who feels that mitigating circumstances should allow an extension of the time limit beyond one year for completion of an incomplete grade may petition the faculty member who granted the grade. If the faculty member agrees to grant the extension, he/she shall inform the student and also the faculty member's unit head and shall then notify the Office of Admissions and Records. Students and their advisers will be notified of outstanding incompletes and of the due dates on which the incompletes would revert to an "E."

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

## **PASS/NO CREDIT POLICY**

Under this option the student receives a Pass for grades A, B, 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. Thereafter no change may be made.

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

## **GRADING PRACTICES ON DROPPED COURSES**

The grading policy for dropping classes is as follows:

Weeks 1 & 2 — Student may drop classes without permission of the instructor and have no entry on transcript.

Weeks 3 - 5 — Student may drop classes without permission of the instructor. Grade of W is automatically assigned.

Weeks 6 - 8 — Student may drop classes after consultation with the instructor and adviser, but grade of WP or WE must be assigned by instructor; WE will be computed as an E for GPA.

After Week 8 — No classes may be dropped; grade other than W, WP, or WE must be assigned by the instructor.

## **POLICY ON AUDIT GRADES**

A student may register for courses in an "audit" status only through the program change procedure. He/she receives no

letter grade and no credit for such courses. The student pays the same fees as though he/she were registering for credit. If an auditing student does not attend regularly, the instructor may determine that the student should not have the audited course placed on his/her record card maintained in the Office of Admissions and Records. A student registering for a course for credit may change to an audit status or vice versa only during the first four weeks of a quarter. Thereafter the change may not be made. Veterans attending under the GI Bill do not receive benefits for audited classes. ISSC Monetary Award and Basic Grant recipients may not include audit classes as part of the total to qualify for payment. A student may sign up for audit credit only through the program change procedure.

## **POLICY ON REPEATED COURSES**

In the event of repeat courses—or whenever an undergraduate student at Southern Illinois University at Edwardsville takes the same course more than once and receives 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 free transcripts 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. Telephone requests for transcripts cannot be honored.

## **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 the Office of Counseling and Testing.

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, and (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, "Pass" in the grade column, 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 examinations 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 200-4, 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: 101, 102, 103-12; 201, 202-8; German: 101, 102, 103-12; 201, 202-8; Spanish: 101, 102, 103-12, 201, 202-8
- (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 a baccalaureate degree.

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

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

4. Test credit will not be allowed when 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.

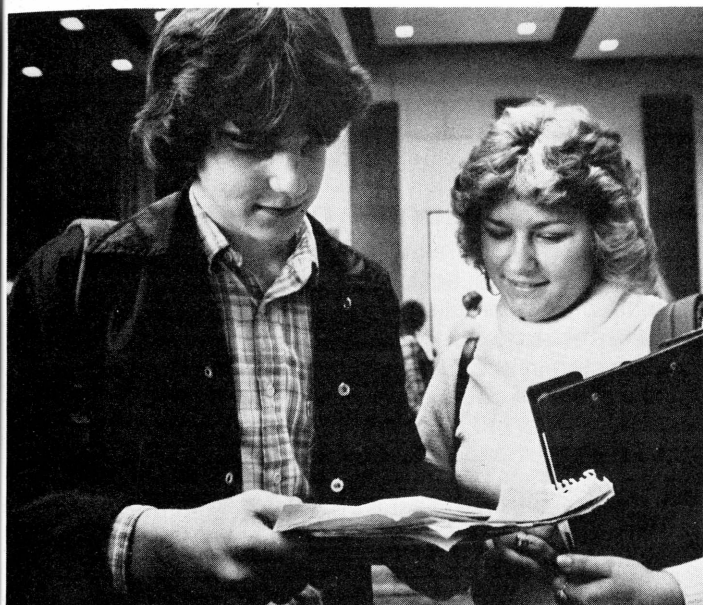
### **General Examinations**

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.

## UNIVERSITY COLLEGE



CAROL A. KEENE, DEAN

**OFFICE OF ACADEMIC ADVISEMENT  
ACADEMIC RESOURCE CENTER  
AEROSPACE STUDIES  
BACHELOR OF LIBERAL STUDIES  
THE DEAN'S COLLEGE  
THE GENERAL STUDIES PROGRAM  
OPEN UNIVERSITY PROJECT  
PRESIDENTIAL SCHOLARS PROGRAM  
STUDENT COLLOQUIUM**

## CHAPTER 4

University College serves as the academic home base for all undergraduate students entering the University and for all undergraduates with "undeclared" majors. The primary aim of the College is to provide effective academic support services for students until they declare a major course of study. The Office of Academic Advisement and the Academic Resource Center comprise the College's support services. The College also serves as the administrative home for the Air Force ROTC detachment, the Bachelor of Liberal Studies degree, Dean's College, General Studies Program, the Open University Project, the Presidential Scholars Program, and Student Colloquium.

### DECLARATION OF MAJOR

Students are classified in University College 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.

### THE OFFICE OF ACADEMIC ADVISEMENT

The Office of Academic Advisement is located in Room 1310 of the Rendleman Building. It is strongly recommended that each student who has not officially declared a major receive academic advisement each term of attendance. All new freshmen and transfer students entering Fall Quarter, 1981, and any quarter thereafter, are required to be advised each quarter through the Office of Academic Advisement until official declaration of major occurs. These students will be

allowed to register only after they have been advised. 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 University College.

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

### STUDY SKILLS

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

### CAREER DEVELOPMENT AND PLANNING

Career Development and Planning, GSK 100c, will emphasize the necessary factors an individual must consider in making



career decisions. The factors to be considered involve a systematic analysis of self-awareness, decision-making strategy, and career information.

### **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 is responsible for advising 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.

## **THE ACADEMIC RESOURCE CENTER**

The Academic Resource Center of Southern Illinois University at Edwardsville was established in May 1978 to provide more effective academic support to all students enrolled in the University, to implement a comprehensive testing program, to assess entering student competencies in such skills as reading, writing, and calculating, and to develop and teach a wide range of credit and non-credit academic courses designed to increase the opportunities for success. In order to meet these goals and to provide the best possible academic support services, the Academic Resource Center has three basic components: Curriculum and Research, Student Development and Research, and Tutoring and Projects.

### **CURRICULUM AND RESEARCH COMPONENT**

All students who enter SIUE with an English, Mathematics, or composite ACT of 18 or less or no ACT scores are tested by the Academic Resource Center. Upon evaluation of the test results, recommendations are made regarding specific academic courses which the student should take to improve his basic skills. These academic courses include English, Reading Improvement, Mathematics, and Introductory Chemistry, and are taught by instructors from the Curriculum and Research Component unit. Prime importance is placed upon

the student's needs and abilities; usually the student will complete ARC course work in one to three quarters. In addition to these courses, the ARC also offers various mini-workshops and courses such as Speed Reading to aid the student in the further sharpening of skills essential for success at the university. For further information, contact the Academic Resource Center in the Rendleman Building, Room 0109, or Room 2045 in the East St. Louis Center.

### **STUDENT DEVELOPMENT AND RESEARCH**

The Student Development and Research component of ARC provides academic advisement and counseling to many students who are enrolled in ARC courses. Each student who has been recommended to enroll in ARC courses is assigned a counselor in the Student Development and Research Component. The counselor then aids the student in adjusting to university life, provides the student with a solid foundation of information, both vocational and university related, and serves as a resource person. In addition to individual counseling, the staff of the Student Development and Research unit also offers a study skills course for any student who may wish to enroll in such. Additionally, a wide variety of workshops, such as "Communication Skills" and "Test Taking," are designed to aid the student in his academic endeavors. All ARC counselors have the latest financial aid applications in their offices and can aid the student in preparing their applications. The main concern of the Student Development and Research Component is the student's success. Counselors are available in the Rendleman Building, Room 0248 —or Room 2045 in the East St. Louis Center.

### **TUTORING**

The peer tutoring component of the Academic Resource Center provides free tutorial assistance to all University students. Tutoring in mathematics, statistics, chemistry, physics, biology, engineering, and other need areas is done by highly-qualified upper level students who have been employed as tutors not only because of their knowledge of the subject matter, but also because of their ability to communicate and work with other students. The Tutoring Component maintains library and study aid materials for most of the courses; also, the tutoring component makes use of mini-computers and university computer networks for computer assisted instruction. All tutoring is done primarily on an appointment basis; however, drop-in assistance is given on a first-come, first-serve basis if a tutor is available. Tutoring appointments are made in the Rendleman Building, Room 0214 — or Room 2036 in the East St. Louis Center.

The Academic Resource Center is dedicated to providing the academic support needed by many students at the University. Any student who may desire to use the services on the Edwardsville Campus or who may have questions should contact an ARC staff member in the Rendleman Building, Room 0238. Students on the East St. Louis Campus may receive assistance by contacting ARC staff located in Room 2036, East St. Louis Center.

## **AEROSPACE STUDIES**

The objective of the Air Force Reserve Officers Training Corps 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 are assigned by the Department of the Air Force with approval of the University.

The Department of Aerospace Studies 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 Course (POC), covering the junior and senior years. The two-year program includes the POC only. Academic hours are creditable toward graduation requirements.

The GMC curriculum includes two main themes: The Air Force Today and The Development of Air Power. The POC curriculum emphasizes the professional development of the future Air Force Officer. The courses cover American Defense Policy and Air Force Management and Leadership. Air Force ROTC textbooks are loaned to all ROTC students without charge.

Leadership Laboratory is taken one hour per week throughout the student's enrollment in AFROTC. Instruction is conducted within the framework of an organized cadet corps with a progression of experiences designed to develop each student's leadership potential. Leadership Laboratory involves a study of Air Force customs and courtesies, drill and ceremonies, career opportunities in the Air Force, and the life and work of an Air Force junior officer. Students develop their leadership potential in a practical supervised laboratory which typically includes field trips to Air Force installations throughout the U.S.

AFROTC cadets must also successfully complete supplemental courses to enhance their utility and performance as commissioned officers. These include university courses in English composition and mathematical reasoning. Specific courses are designated by the Professor of Aerospace Studies.

AFROTC Field Training is offered during the summer months at selected Air Force bases throughout the United States. Students in the four-year program participate in four weeks of Field Training usually between their sophomore and junior years. Students applying for entry into the two-year program must successfully complete six weeks of Field Training prior to enrollment in the Professional Officer Course. Major areas of study include: junior officer training, aircrew/aircraft orientation, career orientation, survival training, base functions and Air Force environment, and physical training.

Qualified senior Air Force ROTC cadets designated as pilot candidates participate in the Flight Instruction Program. Each FIP student receives twenty-five hours of free flight instruction.

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 at Southern Illinois University and be in good academic standing, (d) the successful completion of Field Training.

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 Federal AFROTC 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: the applicant must be an Illinois resident, have demonstrated leadership ability, and qualify on a competitive examination.

### MINOR IN AEROSPACE STUDIES

The aerospace studies minor educates the student in the leadership and managerial responsibilities associated with administering aerospace operations. In addition the program examines past, present, and future of aerospace technology.

The program requires 27 hours and includes 18 hours in aerospace studies. The remaining 9 hours to complete the minor consist of electives chosen from several closely related areas in consultation with the student's adviser.

### COURSES

**100—3 (1,1,1) THE AIR FORCE TODAY.** a) Examines the role of the Air Force in contemporary society, the basic characteristics of air doctrine, and the mission and organization of the U.S. Air Force. b) Examines the functions of U.S. strategic offensive and defensive forces, including their missions, organizations, and weapon systems. c) Examines U.S. general purpose forces, their missions, organization, and weapon systems. Also includes aerospace support forces, including airlift, research and development, logistics, and related agencies. One hour lecture and one hour laboratory per week.

**200—3 (1,1,1) THE DEVELOPMENT OF AIR POWER.** a) Examines the factors contributing to change in the nature of military conflict and the development of airpower from balloons and dirigibles up to WWII. b) Examines the development of airpower from WWII to the Korean War. Includes development of an independent Air Force and studies the Berlin Airlift. c) Examines the development of airpower from the early 1950s through the peaceful employment of airpower in relief missions and civic action programs in the late 1960s, and the air war in Southeast Asia. One hour lecture and one hour laboratory per week.

**300—9 (3,3,3) AIR FORCE MANAGEMENT AND LEADERSHIP.** a) Development of the understanding of managerial and leadership responsibilities of a manager. Examination of the basic concepts of individual motivation, organizational dynamics, and leadership. Comprehension of the decision making processes. b) Communication development in the areas of listening, speaking and writing skills for the manager. c) Application of case study method to develop analysis techniques of current management operations. Three hours of lecture and one hour of laboratory per week. Prerequisite: satisfactory completion of GMC and/or field training course.

**350—2 FLIGHT REGULATION AND NAVIGATION.** A study of flight regulations, weather, and navigation. Two hours lecture per week.

Prerequisite: enrollment in the Air Force ROTC Flight Instruction Program or consent of PAS.

**351—9 (3,3,3) NATIONAL SECURITY FORCES IN CONTEMPORARY SOCIETY.** Studies the Armed Forces as an integral element of society with an emphasis on the broad range of American and military relations and the environmental context in which US defense policy is formulated and implemented. Special themes include: Societal attitudes toward the military; the role of the professional military leader-manager in a democratic society; the fundamental values and socialization process associated with the armed services, the requisites for maintaining adequate national security forces; political, economic and social constraints on the national defense structure; the impact of technological, and international developments on strategic preparedness; the variables involved in the formulation and implementation of national security policy, and military justice. Three hours lecture and one hour laboratory per week.

## 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<sup>1</sup>

|                                   |     |
|-----------------------------------|-----|
| General Studies Requirements..... | 68  |
| Broad Area Requirements.....      | 72  |
| Natural Sciences .....            | 24  |
| Social Sciences .....             | 24  |
| Humanities-Fine Arts .....        | 24  |
| Electives.....                    | 52  |
|                                   | 192 |

<sup>1</sup>No more than 32 hours of General Studies and/or Departmental courses 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.

## 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. The academically able student who has a real need or reason to plan an appropriate curriculum to suit her/his vocational and professional needs, and her/his desires, is able to do so without regard to 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 her/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 professor-specialist in her/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 study 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 may enter The Dean's College from high school or during the first three years at the University. 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.).

## 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 unit 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 in which 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/her 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 student 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:

|  |    |
|--|----|
| GHA HUMANITIES AND FINE ARTS .....   | 16 |
| The student selects any courses listed in the GHA Area to total 16 hours.                |    |
| GIS INTERDISCIPLINARY STUDIES.....   | 4  |
| The student selects any one course listed in the GIS Area.                               |    |
| GSK SKILLS .....   | 16 |
| The student is required to take 8 hours of written communication (GSK 101 and 102) ..... |    |
| The student must take 4 hours of oral communication (GSK 123) .....                      |    |
| The student must take 4 hours of reasoning or problem solving (GSK 152 or 162) .....     |    |
| GSM NATURAL SCIENCE AND MATHEMATICS.....   | 16 |
| The student selects any courses listed in the GSM Area to total 16 hours.                |    |
| GSS SOCIAL SCIENCE .....   | 16 |
| The student selects any courses listed in the GSS Area to total 16 hours.                |    |

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The student is automatically excused from 8 hours in the one Area among GHA, GSM, and GSS most closely related to the area of concentration. 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 later in this chapter.

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GENERAL STUDIES REQUIREMENTS..... 60

## 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, mass communications, music, philosophy, speech communication, speech pathology and audiology, theater.

Area GSM – Biology, chemistry, construction, earth science, engineering, general science and mathematics, health education, mathematics, nursing, physical education, physical science, physics, recreation.

Area GSS – Accountancy, American studies (GHA or GSS), anthropology, business administration, business education, economics, geography, government, history, human services, psychology, 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 and 23 or above on ACT English.

### GSM Area

- 101—4 Introduction to Physical Science  
One year of high school physics and 13 or above on ACT mathematics, and 28 or above on ACT natural science.
- 110—4 Earth and Its Geographic Environment  
One course of earth science in high school and 28 or above on ACT natural science.
- 111—4 Earth and Its Geologic Environment  
One year of earth science in high school and 28 or above on ACT natural science.
- 120—4 Contemporary Chemistry  
One semester of high school chemistry and 13 or above on ACT mathematics and 28 or above on ACT natural science.
- 130—4 Contemporary Biology  
One year of high school biology and 28 or above on ACT natural science.
- 131—2 Life: Ecology and Diversity  
or  
230—4 Man and His Diseases  
Two years of high school biology with a minimum grade of B and 28 or above on ACT natural science.
- 144—5 Basic Concepts of Algebra  
Six semesters of college preparatory mathematics (equivalent to two years of algebra, one year of plane geometry) with a C average and no failing grade and 24 or higher on ACT mathematics.

### GSS Area

- 101—4 Introduction to the History of Western Civilization
- 102—4 One year of world, western or European history in high school and 27 or above on ACT social science.
- 130—4 Sociology  
A course in sociology in high school and 27 or above on ACT social science.
- 150—4 Economics  
A course in economics in high school and 27 or above on ACT social science.
- 200—4 U.S. History and Constitution
- 201—4 One year of U.S. History in high school with a grade of B
- 202—4 and 27 or above on ACT social science.
- 220—4 U.S. Constitution  
A course in American government or civics in high school and 27 or above on ACT social science.
- 240—4 Geography for Modern Man  
A course in geography in high school and 27 or above on ACT social science and 29 or above on ACT natural science.
- 260—4 Modern Challenges for Psychology  
A course in psychology in high school with a grade of B and 26 or above on ACT social science and 28 or above on ACT natural science.

## SUBSTITUTIONS

Students are permitted to substitute certain courses in other areas for the General Studies courses. Courses taught by the faculty of a student's own major cannot be used to fulfill the requirements in the General Studies area of waiver. The following courses have been approved as substitutes: 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; Mathematics 125—4 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.

## 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.** A survey for the general student of changes in vocabulary, meaning, and sentence patterns which have taken place in the English language. The course begins in the present and works back to early written records such as the first translation of the Bible.

**209—4 CLASSICAL MYTHOLOGY AND ITS INFLUENCE.** The major myths; their origin, nature, interpretations, influence, relevance, and use in the modern world.

**224—4 PHILOSOPHICAL MASTERPIECES.** Reading and discussion of selected philosophic masterpieces of western civilization.

**230—4 MUSIC HISTORY/LITERATURE.** Development of choral and instrumental music from the Renaissance to the present. Prerequisite: 136 or equivalent.

**282—4 ISSUES IN FEMINISM.** (Same as GSS 282.) Critical examination of the beliefs, values, and commitments of the women's movement.

**303—4 FOLKLORE.** The types of folklore, based on the culture-reflection approach, with extensive readings in American folklore and an introduction to European folklore; practice in collecting, classifying, and coding, and in the use of Thompson's Index.

**305—4 STUDIES IN BIOGRAPHY.** Reading, discussion, and evaluating various forms of biographical work in historical and literary context. Opportunity for individual work in the student's area of concentration.

**306—4 INTRODUCTION TO THE BIBLE.** Reading and discussion of the Old and New Testaments in English translation, informed by attention to their literary, historical, and theological contexts.

**307—4 INTRODUCTION TO SHAKESPEARE.** Designed to acquaint the general student with Shakespeare's life, the theater of his time, and representative plays and poems.

**308—4 DETECTIVE FICTION.** The development of detective fiction, from its nineteenth century beginnings to the present.

**310—4 MODERN ART A: THE NINETEENTH CENTURY.** A survey of important artists and movements from 1789 to 1900 with special attention to their social contexts and intellectual milieu. David, Delacroix, Ingres, Courbet, Manet, Degas, Monet, Renoir, Rodin, and others.

**311—4 MODERN ART B: THE EARLY TWENTIETH CENTURY.** A survey of important artists and movements from the 1880s through the 1930s with special attention to the social context and intellectual milieu. Cezanne, Seurat, Van Gogh, Matisse, Rouault, Picasso, Braque, Gabo, Mondrian, and others.

**312—4 MODERN ART C: THE MID-TWENTIETH CENTURY.** A survey of important artists and movements from the 1800s to the present, emphasizing the later developments. Attention to the social contexts and intellectual milieu, German expressionism, surrealism, the Bauhaus, modern architecture, and contemporary American painting and sculpture.

**315—4 AMERICAN ART I.** A study of the visual arts in the United States. While the emphasis is upon architecture, painting, and sculpture in the context of American social and cultural evolution, the minor arts also are placed in perspective. 315, 316, 317 may be taken in any sequence.

**316—4 AMERICAN ART II.** A continuation of American Art I dealing with art of the nineteenth century. 315, 316, 317 may be taken in any sequence.

**317—4 AMERICAN ART III.** A continuation of American Art II with emphasis on the art of the twentieth century. 315, 316, 317 may be taken in any sequence.

**320—4 EXISTENTIALISM.** A survey of typical existentialist writers such as Kierkegaard, Nietzsche, Jaspers, Sartre, Camus, and Marcel, focusing on such issues as liberty, the meaning of the self, finitude and death, and the meaning of religious experience.

**321—4 PRAGMATISM.** A critical examination of pragmatism as a contemporary perspective on life, reality, and American culture.

**322—4 ETHICS.** An investigation of the basic problems related to deciding how men ought to act and of modern discussions of individuals and social morality.

**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.

**241—4 INTERCULTURAL RELATIONS.** Intercultural Relations will focus on social problems, such as prejudice, stereotyping, discrimination, segregation, communication breakdowns, and tensions between racial, ethnic and other groups. Methods utilized in the analysis and alleviation of these problems will include enhancement of interpersonal communication skills, increased awareness of cultural similarities, diversities and shared learning experiences.

**242—4 PEOPLE AND CULTURE OF THE EAST.** Introduction to the culture of selected East Asian nations, e.g., China, Japan, Korea and Vietnam. Key organization principles, religious and philosophical norms, social customs, and aesthetic tastes are examined to illustrate characteristic themes in traditional thought and practice, and modern East Asia is examined to illustrate continuity and transformation of these themes.

**260—4 GLOBAL PROBLEMS AND HUMAN SURVIVAL.** A team taught interdisciplinary course addressed to the issue of the survival of the human race in the face of complex interrelated global problems such as war, underdevelopment, population, pollution, resource-depletion, and misuse of the ocean.

**280—4 SONG AND POETRY: FROM BYRD TO THE BEATLES.** A non-technical survey of the creative relationship between the composer and the poet, with emphasis on examples taken from Renaissance court music, the folk song, the art song, oratorio, opera, and contemporary serious and popular songs. Considerable class listening and discussion.

**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 application include baseball, golf, tennis, basketball, soccer, football, and gymnastics.

**340—4 THE PROBLEM OF WAR AND PEACE.** A consideration of the problem of war and ways of securing peace, drawing information from various disciplines including anthropology, economics, government, history, philosophy, psychology, and sociology.

**341—4 THE EUROPEAN IMMIGRANT IN AMERICA.** An interdisciplinary (American History and American Literature) examination of the impact of immigrant groups on American social, political, and cultural patterns. Subjects to be considered will be assimilation, stereotyping, generational conflict, and nativism.

**342—4 DEATH AND DYING.** An interdisciplinary analysis of the problem of death and dying. Considers topics such as conceptions of death and dying, cultural and social/psychological aspects of death and dying, suicide, immortality, and euthanasia.

**380—4 THE ARTS SEMINAR: AN INTRODUCTION TO THE AESTHETIC EXPERIENCE.** Cross-disciplinary undergraduate seminar organized around a series of theater productions, concerts, exhibitions, and readings. These events will be followed by workshops and lecture and discussion periods emphasizing classic, romantic, and phenomenological descriptions of the aesthetic experience. Prerequisite: sophomore standing.

## SKILLS (GSK)

**100a—1 STUDY SKILLS.** An introduction to academic survival skills. This course is designed to acquaint students with the following: note taking techniques, test taking strategies, various study systems and time management, goal setting, communication and problem solving skills.

**100b—1 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: 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 non-mathematical study of motion, matter, electricity, magnetism, and the atom.

**110—4 EARTH AND ITS GEOGRAPHIC ENVIRONMENT.** An introduction to the earth's place in the solar system, the earth-sun relationship, and the earth's atmospheric activities.

**111—4 EARTH AND ITS GEOLOGIC ENVIRONMENT.** An introduction to deformation of the earth's crust, mountain uplift, continental drift, earthquakes, rocks and minerals, and glaciation.

**120—4 CONTEMPORARY CHEMISTRY.** A study of selected fundamental principles of chemistry, especially the atomic and molecular nature of matter and of the pervasive role of chemical knowledge and technology in the contemporary world.

**130—4 CONTEMPORARY BIOLOGY.** An examination of the major contributions of biology to an understanding of ourselves and our world. The development, nature, and human implications of the cell theory, heredity, the modern synthetic theory of evolution, population dynamics, and ecology and environmental problems. No credit will be given to students who have had Biology 200 or the equivalent.

**131—2 LIFE: ECOLOGY AND DIVERSITY.** A study of living organisms and the environmental factors and evolutionary mechanisms influencing their diversity and distribution. No credit will be given to students who have had Biology 200 or the equivalent.

**140—8 (4,4) SURVEY OF ELEMENTARY MATHEMATICS.** An introduction to some fundamental concepts in mathematics. (a) Sets, logic, systems of numeration, integers, rational numbers, real numbers. (b) Sentences in one variable, nonmetric geometry, metric geometry, probability statistics. Prerequisites: (a) one year high school mathematics and satisfactory score on A.C.T., or consent of instructor; (b) 140a or consent of instructor.

**144—5 COLLEGE ALGEBRA.** A concept-oriented course intended to provide insights into basic principles and properties of elementary mathematical and algebraic structures. Designed with the needs and interests of the general student in mind. Prerequisite: one and one-half years high school algebra and one year high school geometry, or equivalent.

**210—4 FOSSIL ORIGINS OF MAN.** The origin, evolution, and morphology of the major invertebrate phyla and vertebrate classes that occur as fossils. The relationship of man to evolution and his paleontologic history.

**212—4 CONSERVATION OF NATURAL RESOURCES.** The correct use of the natural resource base of our nation.

**213—4 WEATHER.** A general survey of the influences of weather and

climate on man's occupations and his recreation and on industries, soils, vegetation, food production, and on animals.

**221—4 ENVIRONMENTAL POLLUTION.** General aspects of the various types of pollution including sources, magnitude, harmful effects, and methods of controlling. Prerequisite: high school or college chemistry.

**230—4 HUMAN DISEASES.** A study of the various types of human diseases and of the various defense mechanisms that are available to combat these. The metabolic and cellular bases of diseases are stressed. Viral, bacterial, and parasitic diseases, cancer, inherited disorders, congenital defects, diseases of action of antibiotics and antimicrobial agents. No credit will be given to students who have had Biology 200 or the equivalent. Prerequisite: 130.

**231—4 HUMAN HEREDITY AND SOCIETY.** Principles of human heredity as applied to individuals, kindreds, and populations. Genetic aspects of contemporary biological social problems. No credit will be given to students who have had Biology 200 or the equivalent. Prerequisite: one year high school biology.

**232—4 PLANTS AND CIVILIZATIONS.** An examination of the role of plants in man's social and economic history and of the role of man in the modification and distribution of plants. Prerequisite: one year high school biology.

**233—4 HUMAN SEXUALITY AND REPRODUCTION.** A discussion of sexual anatomy and physiology, normal and abnormal embryonic and fetal development; pregnancy and birth; birth control; sexual relationships, attitudes, and behavior; sexual diseases and disorders; sex and the law. Prerequisite: one year high school biology.

**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: 144.

**250—4 TECHNOLOGY AND SOCIETY.** The interaction of technology and society with emphasis on: impact of technology on the social structure; whether technology is good, evil, or neutral (ethical and/or moral aspects); history of technology in relation to social development; present status in highly industrialized society, in emerging nations; technology assessment; forecasting.

**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-mathematical 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 INTRODUCTION TO ECONOMICS.** Introduction to economic concepts, institutions, and current issues, such as unemployment, inflation, monopoly, and taxation.

**200—4 UNITED STATES HISTORY AND CONSTITUTION: 1492-1815.** A general survey of the political, social, economic, and constitutional development of the United States from 1492 to 1815. Satisfies Constitution requirement.

**201—4 UNITED STATES HISTORY AND CONSTITUTION: 1815-1900.** A general survey of the political, social, economic, and constitutional development of the United States from 1815 to 1900. Satisfies Constitution requirement.

**202—4 UNITED STATES HISTORY AND CONSTITUTION: 1900 TO PRESENT.** A general survey of the political, social, economic, and constitutional development of the United States from 1900 to present. Satisfies Constitution requirement.

**210—4 ANTHROPOLOGY.** Development of humans as biological and social beings; 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.

**261—4 PSYCHOLOGY: MAJOR IDEAS AND ISSUES.** Examination of some of the major issues and ideas that are central to the study of psychology. A historical approach is used to introduce the major ideas of psychology, with an emphasis upon their relationships to developments in other disciplines.

**280—4 DECISION MAKING FOR CONSUMERS.** An introduction to consumer problems and measures to cope with such problems. The application of problem-solving in such areas as consumer credit, insurance, housing, and citizen-consumer responsibilities. Sources for consumer assistance and methods for initiating consumer action.

**282—4 ISSUES IN FEMINISM.** (See GHA 282.)

**283—4 THE NATURE AND IMPACT OF SOCIAL SCIENCE.** An investigation into the nature of social science and its importance for individuals and their society.

**313—4 WOMEN IN CROSS-CULTURAL PERSPECTIVE.** An investigation of the positions and roles of women in cultures from a variety of socio-economic levels and geographical areas of the world. Cross-cultural and other anthropological data in conjunction with the issues of feminism and the contributions anthropology can make to women's studies.

**315—4 THE CULTURAL BACKGROUND OF DEVELOPING AFRICA.** An introduction to the many diverse cultures of Africa from the Egyptian civilization to the Bushman hunters.

**319—4 GROWTH OF OLD WORLD CIVILIZATION.** Cultural origins and dispersals from paleolithic to protohistoric times with particular attention to the complex environmental and cultural factors that led to the rise of early Old World civilizations.

**330—4 MARRIAGE.** An examination of marriage in various societies with an emphasis on the origins, changes, and present status of dating, courtship, and marriage in the United States.

**370—4 EDUCATION AS A SOCIAL INSTITUTION IN THE UNITED STATES.** A critical study of education as a major social enterprise in a pluralistic society. The formative influences upon educational institutions in the United States; their basic characteristics, difficulties, and prospects are explored through the social scientific foundations of education. Designed for students irrespective of major discipline or professional pursuit; provides for a more informed and critical participation in the social institutions of this society.

**388—4 COMMUNISM.** A critical examination of modern theories of communism, including those of Marx, Engels, Lenin, Stalin, and Mao. Prerequisite: junior standing.

## 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.

## COURSES

**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: 16 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 discussion 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 the 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.

**FUNDAMENTALS OF HUMAN GEOGRAPHY.** (OUSS 360—8 hours; OUSS 361—8 hours; OUSS 362—8 hours.) Credits: elective. Provides a basic introductory geography experience in three distinct areas of study: People and Environment looks at such matters as the effect of environment on people and their modification of it. Spatial Analysis explores a special



approach to the study of geography, adopting an abstract stance in the study of man-environment relations. Values, Relevance and Policy considers the current changes in theory of the discipline of human geography.

**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.

## 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 scholarships for up to four academic years covering all tuition and fees for undergraduate programs.

- 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.

- Become members of The Dean's College and, thus, be allowed with the assistance of a Mentor to design a unique educational program which provides him/her with great flexibility in meeting the general education requirements of the University.

- Have opportunities to participate in honors programs and interdisciplinary programs suited to their needs and interests.

- Be encouraged to assist in the promotion of scholarly activity and in the intellectual and cultural life of the University.

Selection of Presidential Scholars is made by the Presidential Scholars Committee on the basis of the 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.

## 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 objective, 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 Dean of University College or the undergraduate adviser of the department involved, whichever is appropriate, with the request. The outcome of the request is made known as early as possible so that students do not labor under false hopes.

## COURSES

### 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.

**ACADEMIC RESOURCE CENTER  
FACULTY**

Emmet G. Beetner, M.A., Lecturer of Mathematics  
F. Cecilia Hakeem, M.A., Lecturer of Mathematics  
Yin-Hsin Ho, M.S., Lecturer of Mathematics  
Lucy H. McAneny, M.S., Lecturer of Mathematics  
Lynda K. Mueller, M.S., Lecturer of Mathematics

**AEROSPACE STUDIES FACULTY**

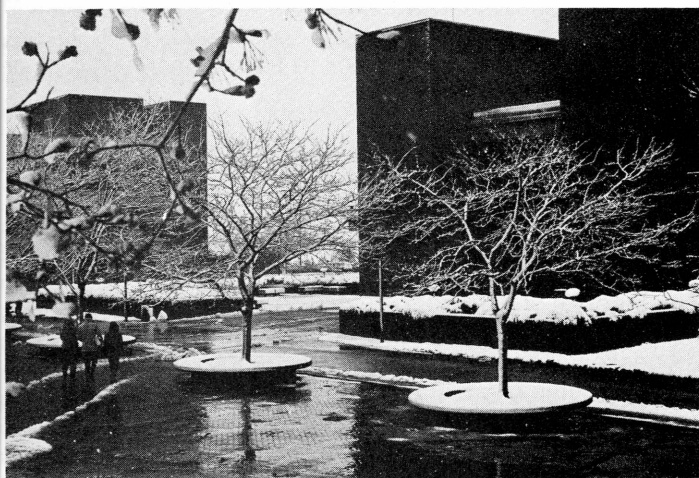
Harrison G. Ayres, Captain, MBA, Adjunct Assistant Professor of Aerospace Studies  
Laurence D. Bachman, Lieutenant Colonel, M.A., Adjunct Professor of Aerospace Studies  
Norman A. Bild, Lieutenant, M.A., Adjunct Assistant Professor of Aerospace Studies  
Michael F. Hrapla, Captain, M.S., Adjunct Assistant Professor of Aerospace Studies  
William J. Mahoney, Staff Sergeant, Adjunct Instructor of Aerospace Studies  
John C. Pilkington, Technical Sergeant, Adjunct Instructor of Aerospace Studies  
William F. Reaves, Staff Sergeant, Adjunct Instructor of Aerospace Studies

## 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 5

### SCHOOL OF BUSINESS



DAVID J. WERNER, DEAN

**OFFERING DEGREES IN:**  
 ACCOUNTANCY  
 BUSINESS ADMINISTRATION,  
 WITH SPECIALIZATIONS IN:  
 GENERAL ACCOUNTING  
 ADMINISTRATIVE SERVICES  
 ECONOMICS  
 FINANCE  
 GENERAL BUSINESS ADMINISTRATION  
 MANAGEMENT INFORMATION SYSTEMS  
 MANPOWER AND INDUSTRIAL RELATIONS  
 MARKETING  
 ORGANIZATIONAL BEHAVIOR AND DEVELOPMENT  
 PRODUCTION AND OPERATIONS MANAGEMENT  
 BUSINESS EDUCATION  
 BUSINESS ECONOMICS

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.

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

The Professional Experience Program (PEP) and the Small Business Institute (SBI) provide enriching modes of study and experience for business students. The PEP and SBI are described later.

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

### ADMISSION

The Bachelor of Science degree programs in the School of Business are upper division programs. 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 Scholars 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 School of Business Undergraduate Scholastic Review Committee.

### TRANSFERS

Students who have earned an associate degree in business are admitted to undergraduate programs 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 requirements of 48 credit hours must be taken in residence.

## ADVISEMENT AND COUNSELING

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

## ACCOUNTANCY

### Bachelor of Science Degree in Accountancy

The degree program in Accountancy is intended as a preparation for entry into a professional career in Accounting in either the private or public sector. The program is designed to provide students with an educational foundation upon which they can build future professional growth in the practice and study of Accounting as they pursue their chosen careers. Students seeking admission to the program must have a 3.5 grade-point average in all Accounting courses taken, which must include a minimum of Accounting 230 and 232 or equivalents, and must have a cumulative grade-point of at least 3.5. Candidates who fail to maintain these standards throughout the program may be dropped from the program. Upon admission to the program, the student should contact the School of Business Academic Advisement Office for consultation with an undergraduate adviser to plan a specific program of study. The student will also be assigned an adviser from the Accounting faculty. To obtain a Bachelor of Science degree in Accountancy (BSA), a student must complete the following:

|  |    |
|--|----|
| General Studies Requirements (this area must include a course in College Algebra and a course in Statistics) ..... | 60 |
| General Business Requirements .....  | 60 |
| Accounting 230, 232, 341   |    |
| Finance 320  |    |
| Economics 201, 202   |    |
| Management 340, 390 (or substitute), 440, 441  |    |
| Marketing 371  |    |
| Management Information Systems 200   |    |
| Management Science 311, 320  |    |
| Production 315   |    |
| Accounting Degree Requirements   |    |
| Accounting 335, 351, 352, 353, 441, 453, 456, 457 and 458 .....  | 36 |
| Management 342 .....   | 4  |
| Economics 343 .....  | 4  |
| Accounting Electives .....   | 8  |
| Nonbusiness Electives .....  | 22 |

## 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:

|   |       |
|---|-------|
| General Studies Requirements (See Chapter 4) .....                            | 60    |
| Program Core Requirements .....   | 76    |
| Specialization Requirements (in any one of 11 possible specializations) ..... | 16-28 |
| Business Electives .....  | 4     |
| Non-Business Electives .....  | 12    |
| Electives .....   | 24-12 |
|   | 192   |

<sup>1</sup>This area should include a course in college algebra and a course in statistics.

## PROGRAM CORE REQUIREMENTS

All BSBA students take the BSBA Core listed below.

School of Business Core Requirements:

Accounting 230, 232, and either 233 or 341<sup>2</sup>  
Economics 201, 202, 343  
Finance 320  
Management 340, 341, 390, 440, 441  
Management Information Systems 200, 381  
Management Sciences 311 and either 312, 314, or 320  
Marketing 370, 371  
Production 315

<sup>2</sup>Those 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.

### GENERAL ACCOUNTING

Accounting 351, 352, 441, 453

### ADMINISTRATIVE SERVICES

Administrative Services 426, 427, 428  
Management Information Systems 201A

### BUSINESS DATA PROCESSING

A specialization in Business Data Processing has been developed and is awaiting full review and approval. Interested students should inquire in the School of Business Advisement and Counseling Office.

**ECONOMICS**

Economics 401, 402 and two electives in economics

**FINANCE**

Finance 420, 423, 424, 425

**GENERAL BUSINESS ADMINISTRATION**

(To be planned on an individual basis; requires prior approval of the program director.)

**MANAGEMENT INFORMATION SYSTEMS**

Management Information Systems 201a, 281, 301, 480, and 12 hours of 400-level MIS electives  
Administrative Services 426

**MANPOWER AND INDUSTRIAL RELATIONS**

Economics 431, 432  
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 sequences of courses in such fields as mathematics, government, sociology, etc., as part of the general business administration specialization; these specializations require the prior approval of the BSBA Program Director. 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 Accounting specialization within the BSBA degree is designed for individuals who need additional accounting training beyond the general School of Business requirements but not to the extent required for a professional accounting degree. This program is designed for students who do not anticipate a career in Accounting, and receipt of this degree does not qualify the student to take the uniform CPA examination.

**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 administra-

tive 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 totalling 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 prepare personnel for programming and design of information systems. The specialization includes the study of languages, equipment, software, and human interface, and information systems. Emphasis is on systems techniques which utilize the team approach in the design and development of decision and supporting systems.

The MIS program is responsive to the requirements of the following professional career examinations: the Certification in Data Processing (CDP), the Certification in Computer Programming (CCP), the Certification in Information Systems Auditing (CISA), and the proposed Certification in Systems Analysis. The student completing this specialization is pre-

pared for an entry level position as a business computer programmer or systems analyst.

## 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.

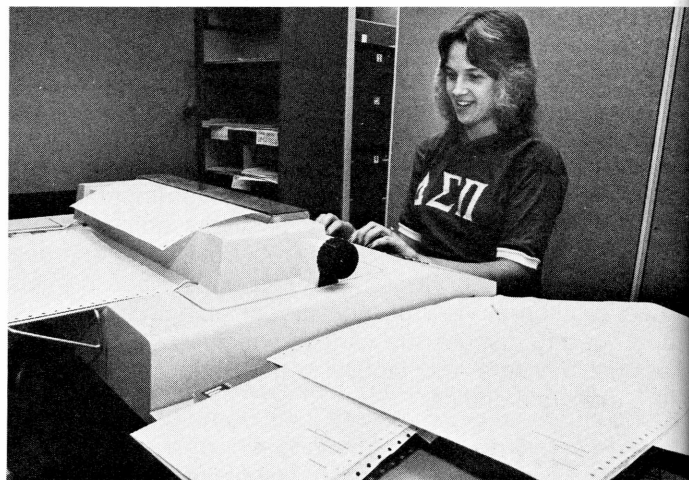
Through personal involvement in various experiential exercises, courses are designed to provide the student with opportunities to develop skills in effective management of human resources.

## PRODUCTION AND OPERATIONS MANAGEMENT

The planning and control of operations, inventory, purchasing costs, and quality are concerns of all organizations including those involved in transportation and services, as well as those in manufacturing. Emphasis is on the analysis and design of management systems utilizing quantitative techniques in the design and measurement of work, inventory control, manpower planning, scheduling work activities, space utilization and quality control. The 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. A minimum of 12 hours must be taken in residence.

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.

SMALL BUSINESS INSTITUTE PROGRAM

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

Organizations become candidates for participation in this program by applying either to the Small Business Administration or to the Director of the Small Business Institute at SIUE.

BUSINESS EDUCATION

The business teacher education curriculum is designed to prepare teachers of business subjects for secondary schools, community 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 4)  | 60 |
| (This area should include one mathematics and one statistics course, a government course, and a psychology course.) |    |
| Health and Physical Education (Required for teacher certification)  | 6  |
| Business Teacher Education Core   | 64 |
| Accounting 230, 232   |    |
| Administrative Services 426   |    |
| Business Education 327, 350, 402 <sup>1</sup>   |    |
| Economics 201, 202  |    |
| Finance 320   |    |
| Management 340, 342, 390, 441   |    |
| Management Information Systems 200  |    |
| Management Science 311  |    |
| Marketing 371   |    |
| Subject Matter Specializations (Choose One)   | 12 |
| ACCOUNTING-DATA PROCESSING  |    |
| Accounting 233 (or other accounting elective)   |    |

<sup>1</sup>May be substituted in exceptional cases by the Departmental Chairperson.

|  |       |
|--|-------|
| Business Education 408   |       |
| Management Information Systems 201a  |       |
| SECRETARIAL ADMINISTRATION   |       |
| Administrative Services 427  |       |
| Business Education 324a, 404   |       |
| MARKETING AND DISTRIBUTIVE EDUCATION   |       |
| Marketing 472 or 474   |       |
| Business Education 414, 416  |       |
| ECONOMICS  |       |
| Management 440   |       |
| Economics 401 or 402, 425  |       |
| Free Electives   | 13    |
| Professional Development Sequence (Choose either 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) <sup>2</sup>  |       |

<sup>2</sup>Secondary 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 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 4)         | 60  |
| Requirements for Major in Economics                  | 84  |
| Economics 321  | (4) |
| GSM 144, 244   | (9) |
| Accounting 230, 233                                  | 8   |
| Economics 201, 202, 321, 401, 402, 417               | 24  |
| (prerequisite to 417 is MS 311 or equivalent)        |     |
| Economics Elective                                   | 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 201, 202, 401, 402. The remaining 12 hours shall

consist of electives in economics chosen in consultation with an adviser from the Department of Economics.

## Bachelor of Science/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—I to 6 ACCOUNTING READINGS.** May be repeated to a maximum of 6 hours. Prerequisite: consent of instructor.

**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.

**353—4 INTERMEDIATE FINANCIAL ACCOUNTING THEORY AND PROBLEMS III.** Continuation of Accounting 352. Prerequisite: 352.

**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; book 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: 353.

**456—4 AUDITING I.** Involves an overview of auditing, the auditor decision process, understanding of the client's business, and development of audit working papers. Also includes in-depth study of the nature of audit tests in the sales and collection cycle, inventory and warehousing cycle, capital acquisition and repayment cycle, cash balances in the bank, and the completion of the audit. Prerequisites: 341, 353.

**457—4 AUDITING II.** A study of the environment of auditing, including internal auditing, the auditor's legal liability, and evaluation of internal controls. Includes analyses of current Statements on Auditing Standards, statistical sampling applications, the impact of EDP systems on auditing, and preparation of auditor's reports. Prerequisite: 456.

**458—4 ACCOUNTING SYSTEMS.** Problems in accounting system design and installation. Examination of existing systems and practice in system design and reports. Prerequisites: 331, 341, 351b.

**461—4 PREPARATION FOR ACCOUNTING PRACTICE.** An examination of current accounting issues, practical accounting problems and the pronouncements of authoritative accounting bodies (e.g., the SEC and FASB). Prerequisites: grade of B or higher in 353, consent of instructor.

**490—I 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 chairperson.

## ADMINISTRATIVE SERVICES

**426—4 ANALYZING INFORMATION AND ADMINISTRATIVE SUPPORT SYSTEMS.** An analysis of administrative support and information systems including data entry, data processing, transaction processing, communications, clerical services, reprographics, word processing, mail services, records management. The development of skill in using analysis tools such as task lists, work distribution charts, decision tables, playscript, flow charts, forms analysis, work simplification, layout flow analysis, and cost measures. Emphasis on field projects in which tools are used to analyze real information and support systems.

**427—4 INFORMATION STORAGE AND RETRIEVAL SYSTEMS.** The requisites for records administration. The value of files and their creation, control, retention, and disposition. Applications to such records as medical, legal, educational. Prerequisite: 426 or equivalent.

**428—4 SYSTEMS AND PROCEDURES.** A problems approach to the office systems-procedures function in the modern business firm; seminar and laboratory work on improvement of systems and procedures, administrative information and paperwork engineering; theory of office-systems design; systems administration and work simplification. Prerequisite: 426 or consent of instructor.

**429—4 INTERNSHIP IN ADMINISTRATIVE SERVICES.** Applications of analysis tools acquired in 426, 427, and 428 to real business situations under the supervision of administrative services personnel in area business firms. Must spend a minimum of 10 contact hours per week for the quarter in one or more administrative services units. Preparation of a report in which a specific problem associated with a unit is identified and analyzed and recommendations delineated. Group seminars are held biweekly for the exchange of views on problems identified and recommended solutions. Administrative services personnel from area firms are invited to participate. Prerequisites: 426, 427, 428 or their equivalent, consent of instructor.

**430—4 WORD PROCESSING SYSTEMS.** The analysis and design of word processing systems for integrated and nonintegrated offices including the creation, transcription, editing, reproduction, distribution, and storing of information. Includes management strategies for organizing staffing, procedures, work measurement, layout, equipment, feasibility, integration of WP and DP, and costs of current systems and management strategies. Prerequisites: MIS 200 and 381.

## BUSINESS EDUCATION

**201—4 BEGINNING TYPEWRITING.** Mastery of the keyboard speed and accuracy in the touch operation of the typewriter, and skill and knowledge needed for vocational and personal uses. May not be taken for credit if have had previous high school or other formal instruction in typewriting.

**202—4 INTERMEDIATE TYPEWRITING.** Mastery of the keyboard speed and accuracy in the touch operation of the typewriter, and skill and knowledge needed for vocational and personal uses. Prerequisites: 201 or

one semester of other formal instruction in typewriting, ability to type at least 30 words per minute.

**221—12 (4,4,4) SHORTHAND AND TRANSCRIPTION.** Study of Gregg shorthand theory and the development of skill and knowledge required for dictation and transcription. (a) Prerequisite: may not be taken for credit by students who have had previous high school or other formal instruction in shorthand. (b) Prerequisite: 221a or one semester of other formal instruction in shorthand-transcription. (c) Prerequisite: 221b or two semesters of other formal instruction in shorthand-transcription and the ability to take new-matter dictation at 60 words per minute for three minutes.

**222—4 FORKNER SHORTHAND FOR PERSONAL USE.** Designed to provide students with skill in using Forkner shorthand to record course and library notes, term paper ideas, and other school and personal communications. May not be taken for credit by students with credit in 242 or 262.

**225—8 (4,4) MACHINE SHORTHAND.** The development and application of skill in the use of machine shorthand. Students wishing to further skills should follow 225b with 221c. Prerequisite for (a): 201 or equivalent; for (b): 202 or equivalent.

**242—4 FORKNER SHORTHAND FOR COMMUNICATIONS SPECIALISTS.** Designed to provide majors in TV, radio, journalism, and other communication specialties with skill in using Forkner shorthand to record notes of interviews, speeches, programs, and to record ideas swiftly. May not be taken for credit by students with credit in 222 or 262.

**262—4 FORKNER SHORTHAND.** The development of dictation and transcription skills in Forkner shorthand. Designed for preparation of secretarial or business teaching careers. Students wishing to further skills should follow 262 with 221b. May not be taken for credit if credit in 222 or 242. Prerequisite: 201 or equivalent.

**324a—4 ADVANCED SHORTHAND AND TRANSCRIPTION I.** The development of high-level dictation and transcription skill and knowledge. Prerequisites: 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—I to 4 INDEPENDENT STUDY IN BUSINESS EDUCATION.** An investigation of topical areas in greater depth than regularly titled courses permit. Individual or small group readings and projects. May be repeated for total of 4 hours. Prerequisite: consent of instructor or department chairperson.

## ECONOMICS

**201—4 PRINCIPLES OF MICROECONOMICS.** Principles and characteristics of the market economy. Household and firm behavior, supply and demand, markets for goods and resources, market structure, and the regulation of business and labor. Prerequisite: GSM 144 or equivalent with grade of C or better.

**202—4 PRINCIPLES OF MACROECONOMICS.** Introduction to the measurement and determination of the quantity of goods and services produced by the U.S. economy and the level of employment and prices. The role of the government in determining the rates of unemployment and inflation through its spending, taxes, control of the money supply, and income policies. Prerequisite: 201.

**300—4 MONEY AND BANKING.** Study of the relationships between money, credit, prices, and macroeconomic activity. Money creation in a banking system, the role of the Federal Reserve System, monetary and fiscal policy, international financial relationships. Prerequisite: 202.

**305—4 ENGINEERING ECONOMICS.** Economic decisions in engineering. Economic principles applied to design of materials, method of production, location, use of machines, employment of personnel, choices of long-run investments, and other considerations. Prerequisites: 201, Math 260a.

**321—4 ECONOMIC HISTORY OF THE UNITED STATES.** European and colonial backgrounds of American economic history; industrialization and economic growth, 1790-1865; transition from an agricultural to industrial economy, 1865-1920; the 1920's, the Great Depression and the New Deal; challenges of the post-war economy. Prerequisites: 201 and 202.

**327—4 SOCIAL ECONOMICS: ISSUES IN INCOME DISTRIBUTION, EMPLOYMENT AND SOCIAL POLICY.** An introduction to the economic factors affecting income distribution, the level of employment, and occupational structure of the U.S. and other economies. Policies to alter income distribution and employment patterns are discussed with emphasis upon the performance of present public assistance programs. Recommended for social work students. Prerequisites: GSS 150, Economics 201 and 202.

**331—4 LABOR ECONOMICS.** Theories of labor force participation, wage determination, and employment; theories of unemployment and economic insecurity; trade unionism; collective bargaining and public policy. Prerequisites: 201 and 202.

**343—4 MONEY AND BANKING.** Study of the relationships between money, credit, prices, and macroeconomic activity. Money creation in a banking system, the role of the Federal Reserve System, monetary and fiscal policy, international financial relationships. Prerequisite: 202.

**345—4 ECONOMICS OF THE PUBLIC SECTOR: NATIONAL.** The role of government in the economy, optimum levels of public activities, government budgets, and national income; financing of government expenditures, principles of taxation, examination of the role of fiscal policy. Prerequisites: 201 and 202.

**400—4 MATHEMATICAL ECONOMICS I.** Applications of mathematical tools to economic analysis with emphasis on learning to use calculus and linear algebra in economic models. A systematic survey of mathematical economic models, including optimization, static equilibria, comparative statics, activity analysis (linear programming), and the theory and application of input-output models. Prerequisites: 401 and 402 or consent of instructor.

**401—4 INTERMEDIATE MICROECONOMIC THEORY.** Determination of prices and quantities in markets for goods and services. Theories of consumer behavior, exchange cost structures, and factor payments. Firm behavior in alternative market structures. Prerequisite: 201.



**402—4 INTERMEDIATE MACROECONOMIC THEORY.** Classical, Keynesian, and Post-Keynesian theories of inflation, employment and the determination of national income. Survey of recent macroeconomic stabilization policy and performance. Prerequisite: 202.

**415—4 ECONOMETRICS I.** Statistical inference and hypothesis testing. The simple linear regression model. Multivariate regression, relaxation of the classical assumptions, problems of specification, and prediction. An introduction to estimation of simultaneous equations. Prerequisite: MS 311 or equivalent or consent of instructor.

**417—4 ECONOMIC FORECASTING.** 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. Prerequisites: 415 or MS 311, GSM 244 or equivalent, and intermediate microeconomics and macroeconomic theory; or completion of MBA courses in economics and quantitative methods.

**421—4 ECONOMIC HISTORY OF EUROPE.** Sources of European economic growth before the Industrial Revolution. Development of European agriculture, industry, finance, and international trade after 1750. Prerequisites: 201 and 202.

**423—4 HISTORY OF ECONOMIC THOUGHT.** Contributions of political and economic philosophers and schools of thought from mercantilism to J. M. Keynes, with emphasis on the development of economic ideas and their influence on contemporary economic theory and national policy. Prerequisites: 201 and 202.

**425—4 COMPARATIVE ECONOMIC SYSTEMS.** An extensive comparison of the nature and performance of capitalism, communism, socialism, facism, and other economic systems. Prerequisites: 201 and 202.

**431—4 LABOR AND PUBLIC POLICY.** The government's role in influencing and regulating labor markets and labor behavior; legislation governing conditions within the firm and the labor markets; legislation affecting the growth of the labor market. Prerequisite: 331.

**432—4 COLLECTIVE BARGAINING AND DISPUTE SETTLEMENT.** An analysis of the collective bargaining process and conflict resolution. Theoretical bargaining models, union governance, and jurisdiction, wages, employment conditions, and the effect of bargaining power in the settlement of labor disputes. Prerequisite: 431 or consent of instructor.

**435—4 INDUSTRIAL ORGANIZATION AND PUBLIC POLICY.** Analysis of the economic implications of alternative market structures. Investigation of the impact of concentration, economies of scale, advertising, and conglomerates on business behavior and public welfare. Policy issues include regulation, antitrust, and public enterprise. Study and evaluation of current issues in market structure, antitrust policy, and regulation. Prerequisite: 401 or equivalent, or consent of instructor.

**443—4 ADVANCED MONEY AND BANKING.** Role of money and credit in U.S. economy; the commercial banking market structure and commercial banking operations; 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: 343.

**445—4 ECONOMICS OF THE PUBLIC SECTOR: STATE AND LOCAL.** Economic functions of government at the state and local levels; analysis of public expenditure and taxation, intergovernmental fiscal relations, budgeting techniques, public choice. Prerequisites: 201 and 202, or consent of instructor.

**451—4 AN INTRODUCTION TO URBAN ECONOMICS.** Causes of urban growth and analysis of the spatial pattern of economic activity in urban areas; the implications of these for public policy responses to urban problems of housing segregation and racial discrimination, urban transportation and urban environmental pollution. Prerequisite: 401; 400 and 415 suggested.

**453—4 LOCATION OF ECONOMIC ACTIVITY.** The impact of space upon economic analysis including such topics as the location of economic activity, regional economic development, and the theoretical and practical problems encountered in the planning of land use. Prerequisite: 401; 400 and 415 suggested.

**461—4 INTERNATIONAL ECONOMICS.** The causes and effects of international trade. The effect on resource allocation, the price level, income and employment. Policy questions including trade barriers and free trade areas. The international monetary system. Prerequisite: 401; 343 or 402 suggested.

**463—4 INTRODUCTION TO ECONOMIC DEVELOPMENT.** Theory and problems associated with increasing incomes of the less developed countries. Emphasis on the changes in the internal economic structure that must be made for development to be sustained. Prerequisite: 201 and 202.

**490—1 to 8 INDEPENDENT STUDY IN ECONOMICS.** An investigation of topical areas in greater depth than regularly titled course 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 controlling, and external sources of capital. Prerequisites: Accounting 232, Economics 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 of 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.

**490—1 to 8 INDEPENDENT STUDY IN ECONOMICS.** An investigation of topical areas in greater depth than regularly titled course permit. Individual or small group readings or research projects are pursued under the supervision of a member of the economics faculty. May be repeated by permission of the department chairperson up to a total of 8 credit hours. Prerequisite: consent of instructor and department chairperson.

## MANAGEMENT

**140—4 INTRODUCTION TO BUSINESS.** An overview of the basic nature of business in an essentially market-disciplined economic system. Emphasis on the interdisciplinary nature of business and the broad administrative principles governing organized human endeavor. The systems approach is stressed. Introduction to business and economic terminology and to the case method of developing analytical ability.

**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 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 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

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—I to 8 BUSINESS POLICY MANAGEMENT PROBLEMS LABORATORY.** Promotes application of business knowledge/skills to the analysis of actual complex business problems. Students learn to discover and feasibility test the full range of strategies, policies, and practices used by goal-oriented organizations. Extensive use of a local "data bank" firm plus case studies. Satisfies 4 units of electives plus 441 requirement. Prerequisites: senior business major, consent of instructor.

**475—4 to 16 ORGANIZING AND OPERATING A SMALL BUSINESS.** Management of a small business, covering topics such as task organization in an informal climate, risk-taking, intra- and inter-personal stress, and emphasizing individualized projects and problems. Graduate students limited to 4 hours credit. Prerequisites: 340, 341, Accounting 230, and senior standing or consent of instructor.

**490—1 to 8 INDEPENDENT STUDY OF BUSINESS ADMINISTRATION.** An investigation of topical areas in greater depth than regularly titled courses permit. Individual or small group readings or research projects under the direction of a faculty member of the department. May be

repeated by permission up to a total of 8 credit hours. Prerequisite: consent of instructor.

## MANAGEMENT INFORMATION SYSTEMS

**200—4 BUSINESS DATA PROCESSING APPLICATIONS.** Exposure to and experience with a variety of commercially available computer hardware and software techniques with emphasis on using them to aid resolution of real problems in business and business courses.

**201—24 (4,4,4,4,4,4) COMPUTER PROGRAMMING.** An introduction to computer programming in a specific language utilizing concepts of listing with heading and totals; computations; comparisons; control breaks; tables and/or arrays; and file processing. Students design, write, debug, and process business oriented programs on the computer in (a) COBOL; (b) BASIC; (c) RPG; (d) PL/I; (e) BAL; or (f) PASCAL. Prerequisite: 200.

**281—4 SYSTEMS ANALYSIS AND DESIGN.** Introduction to the structures of the systems analysis and design cycle. Theoretical aspects will be coupled with applications to case problems using the tools and techniques of analysis and design. Prerequisite: 200 or introductory course in computers.

**301—4 ADVANCED PROGRAMMING USING FILE TECHNIQUES.** Advanced programming concepts dealing with arranging, creating, and/or changing data base files on the computer. Students design, write, debug, and process programs on the computer, normally in COBOL. A minimum grade of C from MIS 201a or instructor permission is recommended to take this course. Prerequisite: 201a.

**381—4 MANAGEMENT INFORMATION SYSTEMS.** Study of the application of principles of systems analysis and systems design to business problems. Attention to the complexities involved in the simultaneous design and integration of production, marketing, and other sub-systems. Prerequisite: 200 or concurrent enrollment.

**480—4 to 8 SENIOR INTERNSHIP SEMINAR.** Synthesis and application of appropriate material from other courses to realistic problems in a simulated working environment. Not available for graduate credit. May be repeated by permission to total of 8 credit hours. Prerequisites: senior standing, consent of instructor.

## 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. Prerequisite: 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—I 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 relationship of materials management systems including purchasing, production planning, inventory control, and transportation as well as quality control, 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.** 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. 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 or projects. May be repeated by permission up to total of 8 credit hours. Prerequisites: consent of instructor and department chairperson.

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James Benjamin, Ph.D., Associate Professor of Management Systems and Sciences

Ray Bernardi, Ph.D., Associate Professor of Business Education and Administrative Services

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., Associate Professor of Business Education and Administrative Services

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Curtis W. Cook, D.B.A., Associate Professor of Management

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Albert Cummings, M.B.A., Assistant Professor of Management Systems and Sciences

Louis Drake, Ph.D., Emeritus Professor of Economics

James Eaton, Ph.D., Associate Professor of Accounting

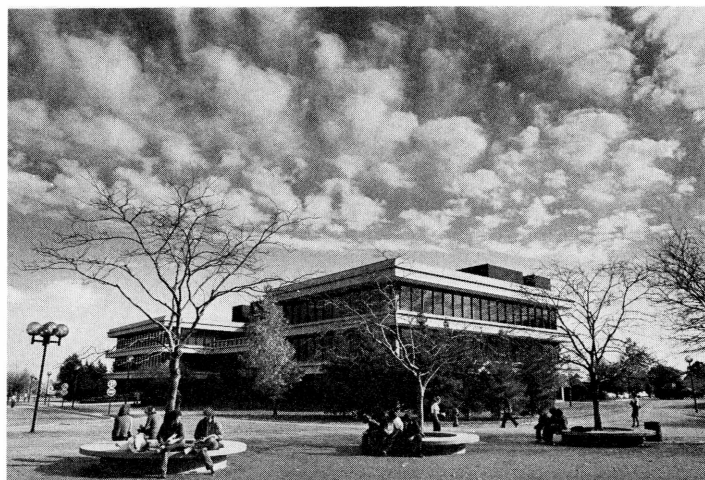
Walter Eckardt, D.Sc., Associate Professor of Finance

Radcliffe Edmonds, Jr., Ph.D., Assistant Professor of Economics



- Donald Elliott, Ph.D., Associate Professor of Economics  
Darryl Enos, Ph.D., Associate Professor of Management  
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Rhett Wehrenberg, Instructor of Marketing  
James Weir, Ph.D., Associate Professor of Management  
David Werner, Ph.D., Dean of School and Professor of Management Systems and Sciences  
William Whitmore, Ph.D., Associate Professor of Marketing  
Glenn Wilson, Ph.D., Associate Professor of Management Systems and Sciences

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FRED D. CARVER, DEAN

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**PSYCHOLOGY**  
**RECREATION EDUCATION**  
**SECONDARY EDUCATION**  
**SPECIAL 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.

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 State Board of Education and are accredited by the National Council for the Accreditation of Teacher Education (NCATE).

### *Elementary Certificates*

Early Childhood<sup>1</sup>  
 Elementary (K-9)

### *Secondary Certificates (6-12)*

|                            |                    |                  |
|----------------------------|--------------------|------------------|
| Art                        | Geography          | Physical Science |
| Biology                    | German             | Physics          |
| Business Education         | Government         | Psychology       |
| Chemistry                  | History            | Spanish          |
| Dramatics                  | Mathematics        |                  |
| Earth Science <sup>2</sup> | Physical Education |                  |
| English                    |                    |                  |
| French                     |                    |                  |
| General Science —          |                    |                  |
| Mathematics                |                    |                  |

### *Special Certificates (K-12)*

|                               |                                    |
|-------------------------------|------------------------------------|
| Art                           | Emotionally Disturbed <sup>3</sup> |
| Music                         | Learning Disabilities <sup>3</sup> |
| Physical Education            | Speech and Hearing                 |
| Educable Mentally Handicapped | Impaired                           |

<sup>1</sup>Approved November, 1975

<sup>2</sup>Approved December, 1968

<sup>3</sup>Approved 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 II, 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 Instructional Materials Center.* The Special Education Instructional Materials Center provides assessment and methodology materials for use in Special Education and related fields. It is also used as an observation and participation laboratory including demonstrations related to classroom management and techniques of teaching. Pre-clinical teaching activities in material development are sponsored at this site by the Madison County Teachers Center.

*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 two programs leading to the Bachelor of Science degree in Education. The first program is *Elementary Educa-*

*tion* which fulfills the requirements for a Bachelor of Science degree in Education and entitlement to the Illinois Standard Elementary Certificate, kindergarten through grade nine. In addition, students are qualified to teach in 25 other states through the National Council for Accreditation of Teacher Education (NCATE) reciprocity agreements. The second is the program in *Early Childhood Education* which leads to the Bachelor of Science degree in Education and entitlement to the Illinois Early Childhood Certificate. Students are thereby entitled to teach children through six years of age, exclusive of those enrolled in public school kindergarten. The program also prepares students for professional careers in early childhood centers, nursery schools, and day care centers.

### ELEMENTARY EDUCATION

The Elementary Education program consists of 92 hours of general education, 76 hours of professional education and 24 hours of electives. Elective hours may be taken in course work that would apply toward a second major, such as early childhood education or special education.

Elementary Education 200-2 should be taken before any other professional requirement. A student must have completed 64 quarter hours of course work, have a grade-point average of 3.4 or higher, and demonstrate proof of competency in basic skills prior to enrolling in 200. Competency tests are given approximately four times a year. Students should consult the Office of Student Teaching and Advisement for testing dates and times.

The prospective elementary or early childhood education major must be admitted to the Department by satisfactorily completing 200. Students must maintain a 3.4 grade-point average or higher in order to continue in the program. Should a grade of D or below be received in a professional education course, the student must repeat the course with a grade of C or above. Psychology 301 is required and may be taken concurrently with Elementary Education 200.

The elementary program is field based; that is, students and professors participate regularly in public school classrooms in the local area. Thus, students are provided many opportunities to visit and work with pupils in "real-life" situations. The Illinois State Board of Education requires all education students to complete successfully at least 100 clock hours of clinical experiences prior to student teaching. The elementary program provides opportunities for well over 100 clock hours. In addition to a course in the exceptional child, knowledge about Special Education is integrated into the field experience programs.

Courses are grouped into three field experiences. Field Experience I is a group of classes in which students spend the major part of two days in a public school and two days in campus classes. Students study techniques of teaching in content areas (e.g., reading, etc.) and learning theory. They have opportunities to demonstrate skills learned with pupils in public schools and on video-tapes (micro-teaching) for analysis and critique.

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

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



The elementary education program consists of the following:

|  |     |
|--|-----|
| General Education Requirements .....   | 92  |
| GSK Language Arts and Skills .....   | 16  |
| GSM Science and Mathematics (including at least 8 hours of Math) .....                             | 16  |
| GSS Social Science (including a course in American History and/or Government) .....                | 16  |
| GHA Humanities and Fine Arts .....   | 16  |
| Fitness and Leisure Skills .....   | 6   |
| Additional recommended work in any of the above fields including a minimum of one GIS course ..... | 22  |
| Professional Education Requirements .....  | 76  |
| Pre-Admission Courses .....  | 6   |
| Ed. El. 200-2  |     |
| Psych. 301-4   |     |
| Field Experience I .....   | 16  |
| Ed. El. 314, 337, 343, 365   |     |
| Field Experience II .....  | 16  |
| Ed. El. 338, 415, 442, 445   |     |
| Additional Courses .....   | 22  |
| Ed. El. 413-4  |     |
| Sp. Ed. 400-4  |     |
| Art 330a-3   |     |
| Music 200-3 or 300-3   |     |
| P.E. 350-4   |     |
| GSS 370-4 or Ed. Ed. 355-4   |     |
| Field Experience III .....   | 16  |
| Ed. El. 451-16   |     |
| Electives .....  | 24  |
|  | 192 |

### EARLY CHILDHOOD EDUCATION

The Early Childhood Program consists of 92 hours of general education, 54 hours of professional education and 46 hours of electives. Elective hours may be taken in course work that would apply toward a second major, such as elementary education or special education.

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

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

The early childhood education program consists of the following:

|   |     |
|---|-----|
| General Education Requirements .....      | 92  |
| (See elementary education section)        |     |
| Professional Education Requirements ..... | 54  |
| Ed. El. 200-2                             |     |
| Ed. El. 201-4                             |     |
| Ed. El. 202-4                             |     |
| Ed. El. 317-4                             |     |
| Ed. El. 420-4                             |     |
| Ed. El. 421-4                             |     |
| Ed. El. 422-4                             |     |
| Sp. Ed. 400-4                             |     |
| SpPA 312 or Sp. Ed. 498-4                 |     |
| Ed. El. 450-16                            |     |
| Electives .....                           | 46  |
|   | 192 |

### 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.

#### DRIVER EDUCATION

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

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

#### 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 coursework 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.

|  |    |
|--|----|
| General Education .....                                  | 76 |
| A. General Studies .....                                 | 60 |
| Including  |    |
| GSM 130, 233   |    |
| GIS 342  |    |
| B. Prerequisites to the Major .....                      | 10 |
| Including  |    |
| Chemistry 110a   |    |
| Health Education 201                                     |    |
| 3 hours of Physical Education Activities                 |    |
| Health Education Major Concentration .....               | 4  |
| Including  |    |
| Health Education 205, 250, 300, 334s, 355, 360, 470, 471 |    |
| Nursing 170  |    |
| Biology 312a   |    |
| Special Education 400                                    |    |
| Electives <sup>1</sup> .....                             | 16 |

<sup>1</sup>Substitutes allowed with adviser's consent

|  |     |
|--|-----|
| 2 Courses selected from the following                    |     |
| Health Education 313s, 350, 410, 462, 463, 464, 465, 466 |     |
| Speech 200, 223, 301, 313                                |     |
| English 325  |     |
| Instructional Technology 417                             |     |
| Psychology 432   |     |
| Secondary Education 481                                  |     |
| 2 Courses selected from the following                    |     |
| Philosophy 312   |     |
| Anthropology 400, 416, 426, 442                          |     |
| Government 342   |     |
| Sociology 303, 342, 394, 407, 441                        |     |
| Foundations of Education 490                             |     |
| Psychology 305, 306                                      |     |
| Secondary Education 485                                  |     |
| Professional Education .....                             | 32  |
| Including  |     |
| Health Education 460                                     |     |
| Secondary Education 215, 352, 401a                       |     |
| Electives or Second Teaching Field .....                 | 29  |
|  | 192 |

### Minor in Health Education

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

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

### RECREATION 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 recreation 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.

|  |       |
|--|-------|
| General Studies Requirements (See Chapter 4) .....               | 60    |
| Professional Courses .....                                       | 27    |
| Recreation 100, 200, 348, 349, 365 .....                         | 16    |
| Recreation 390, 410, 420 .....                                   | 11    |
| Professional Experiences .....                                   | 20-22 |
| Recreation 312 or 389 (Must be taken after sophomore year) ..... | 4-6   |
| Recreation 400 .....   | 16    |
| Interdisciplinary Requirements .....                             | 46    |
| Accounting 230 .....   | 4     |
| Health Education 201, 334s .....                                 | 7     |
| Music 307 .....  | 4     |
| Nursing 170 .....  | 4     |
| Physical Education 117a, b, c, 118z, 383, 402, 427 .....         | 15    |
| Psychology 303 or 304, 307 .....                                 | 8     |
| Theater 410a .....   | 4     |
| Electives .....  | 39-37 |
|  | 192   |

### PHYSICAL EDUCATION

For students interested in careers related to physical education, a variety of majors and minors are available. The basic major is designed for students planning a career in either teaching or non-teaching situations. For students who desire teacher certification in Illinois, a professional education component must be completed in addition to the basic major.

In addition to the basic major and teacher certification programs, two minors are also available. A minor in physical education is designed for any student who has a personal interest in physical education, but who does not necessarily plan a career in physical education. The coaching minor is devised for any student who plans to coach in a school or non-school setting.

Prior to admission as a degree candidate in physical education, all students must complete a health exam and attain a minimum overall grade point average of 3.0. For students who wish teacher certification in physical education, the admission requirement is 3.4. Depending upon the specific program the student selects, additional admission requirements must be met. These requirements are available from the physical education adviser. Specific course requirements for each of the programs are listed in the section below.

All activity courses are open to men and women; courses numbered 102 through 199 are primarily for non-physical education majors and minors and may be taken on a Pass/No Credit option. Courses numbered 300, 301, and 302 are for physical education majors and minors.

#### PHYSICAL EDUCATION MAJOR: 48 hours

|   |     |
|---|-----|
| General Studies Requirements (See Chapter 4) .....  | 60  |
| Physical Education Theory Core .....  | 26  |
| Health Education 334s .....   | 4   |
| Physical Education 303a, 303b, 304a, 304b, 410, 420 .....   | 22  |
| Physical Education Activities .....   | 16  |
| Fitness - Select 2  |     |
| Physical Education 300b, 300g, 301h .....   | 4   |
| Team and Individual - Select 2  |     |
| Physical Education 300f, 300h, 300i .....   | 4   |
| Rhythms - Select 1  |     |
| Physical Education 301g, 302a .....   | 2   |
| Field Sports - Select 1   |     |
| Physical Education 301a, 301i .....   | 2   |
| Individual - Select 2   |     |
| Physical Education 302e, 302f, 302g .....   | 4   |
| Electives .....   | 6   |
| Select from 300/400-level Physical Education courses (Students seeking teacher certification must take three additional activity courses as the electives.) |     |
| Second Major or Electives .....   | 84  |
|   | 192 |

#### SECONDARY (6-12) CERTIFICATION: 105 hours

|   |    |
|---|----|
| General Studies Requirements (See Chapter 4) .....        | 60 |
| Physical Education Theory Core .....                      | 26 |
| Health Education 334s .....                               | 4  |
| Physical Education 303a, 303b, 304a, 304b, 410, 420 ..... | 22 |
| Physical Education Activities .....                       | 16 |
| Fitness - Select 2  |    |
| Physical Education 300b, 300g, 301h .....                 | 4  |
| Team and Individual - Select 2                            |    |
| Physical Education 300f, 300h, 300i .....                 | 4  |
| Rhythms - Select 1  |    |
| Physical Education 301g, 302a .....                       | 2  |
| Field Sports - Select 1                                   |    |
| Physical Education 301a, 301i .....                       | 2  |
| Individual - Select 2                                     |    |
| Physical Education 302e, 302f, 302g .....                 | 4  |

|   |     |
|---|-----|
| Electives .....                             | 6   |
| Physical Education .....                    | 22  |
| Physical Education 305, 350, 382, 470 ..... | 16  |
| Physical Education 389 .....                | 6   |
| Professional Education .....                | 35  |
| Counselor Education 305 .....               | 4   |
| Foundations of Education 355 .....          | 4   |
| Health Education 201 .....                  | 3   |
| Secondary Education 215 .....               | 4   |
| Secondary Education 352p .....              | 16  |
| Special Education 400 .....                 | 4   |
| Electives .....                             | 27  |
|   | 192 |

### **SPECIAL CERTIFICATE (K-12) CERTIFICATION: 124 hours**

|   |     |
|---|-----|
| General Studies Requirements (See Chapter 4) .....                        | 60  |
| Physical Education Theory Core .....                                      | 26  |
| Health Education 334s .....   | 4   |
| Physical Education 303a, 303b, 304a, 304b, 410, 420 .....                 | 22  |
| Physical Education Activities .....                                       | 16  |
| Fitness - Select 2 .....  |     |
| Physical Education 300b, 300g, 301h .....                                 | 4   |
| Team and Individual - Select 2 .....                                      |     |
| Physical Education 300f, 300h, 300i .....                                 | 4   |
| Rhythms - Select 1 .....  |     |
| Physical Education 301g, 302a .....                                       | 2   |
| Field Sports - Select 1 .....   |     |
| Physical Education 301a, 301i .....                                       | 2   |
| Individual - Select 2 .....   |     |
| Physical Education 302e, 302f, 302g .....                                 | 4   |
| Electives .....   | 10  |
| Select from 300/400-level Physical Education courses .....                |     |
| Physical Education .....  | 37  |
| Physical Education 305, 350, 382, 383, 384, 387, 388, 389, 390, 470 ..... | 33  |
| Health Education 350 .....  | 4   |
| Professional Education .....  | 35  |
| Counselor Education 305 .....   | 4   |
| Elementary Education 351d .....   | 8   |
| Foundations of Education 355 .....  | 4   |
| Health Education 201 .....  | 3   |
| Secondary Education 215 .....   | 4   |
| Secondary Education 352p .....  | 8   |
| Special Education 400 .....   | 4   |
| Additional Electives .....  | 8   |
|   | 192 |

### **PHYSICAL EDUCATION MINOR: 32 hours**

|  |        |
|--|--------|
| General Studies Requirements (See Chapter 4) .....   | 60     |
| Physical Education Theory Core .....                 | 14     |
| Physical Education 303a, 304a, 304b .....            | 10     |
| Health Education 334s .....                          | 4      |
| Physical Education Activities .....                  | 10     |
| Physical Education 300g, 300h, 300i, 302a .....      | 8      |
| Physical Education 302e or 302f .....                | 2      |
| Electives .....                                      | 8      |
| To be selected from the following .....              |        |
| Physical Education 400a, b, c, d, e, f, g, 476 ..... | each 2 |
| Physical Education 402, 420, 425 .....               | each 4 |
| Additional Major and Electives .....                 | 100    |
|  | 192    |

### **COACHING MINOR: 32 hours**

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

### **Minor in Instructional Technology**

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

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



### **PSYCHOLOGY**

The undergraduate courses in psychology introduce the students 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 non-professional bachelor's level concentration and as a pre-professional 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.

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 pre-professional 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.

|   |     |
|---|-----|
| General Studies Requirements (See Chapter 4) .....                    | 60  |
| GSS 260 does not count toward major.                                  |     |
| Requirements for Major in Psychology .....                            | 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.                           |     |
| Minor .....   | 28  |
| Electives .....   | 47  |
|   | 192 |

## 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.

|   |     |
|---|-----|
| General Studies Requirements (See Chapter 4) .....                    | 60  |
| GSS 260 does not count toward major.                                  |     |
| Requirements for Major in Psychology .....                            | 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.                           |     |
| Minor .....   | 27  |
| Electives .....   | 60  |
|   | 192 |

## Major

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

All students declaring a major 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, in that order, not concurrently, 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.

While only the sequence of 300a, b, c is required of psychology majors, the department has recommended programs for students (a) wishing to get a general background in psychology; (b) interested in teaching of psychology; (c) interested in working in a community service agency; (d) interested in working in business and/or organizations; (e) planning careers in such professions as law, medicine, dentistry, and allied health professions. Students are encouraged to construct a program which best meets their needs in consultation with their faculty adviser.

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

## 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.

|   |    |
|---|----|
| Requirements for Major in Psychology .....  |    |
| Psychology 300 a, 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 include: a grade-point average of 3.0; successful performance on a basic skills test; 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 12.

## TEACHING FIELDS

In cooperation with other Schools at the University, a wide range of teaching fields is available to students in secondary education. Assistance in making a choice between these fields can be obtained from a secondary education adviser or 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        |
| English                    | Physical Education |
| Foreign Languages:         | Physics            |
| French, German, or Spanish | Psychology         |
|                            | Speech             |

The second teaching field consists of 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       |
| Driver Education           | Audio-Visual Option      |
| Economics                  | Mathematics              |
| English                    | Music                    |
| Foreign Languages:         | Physical Education       |
| French, German, or Spanish | Physics                  |
| Geography                  | Psychology               |
| Government                 | Sociology                |
| Health Education           | Speech                   |

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

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

The program outline for secondary education students is as follows:

|   |     |
|---|-----|
| General Studies Requirements (See Chapter 4) .....  | 60  |
| These must include General Psychology, United States History or American Government   |     |
| Professional Education Requirements .....   | 37  |
| Secondary Education 215   |     |
| Secondary Education 401a, b, c  |     |
| Teaching Field Requirements and Electives .....   | 75  |
| A minimum of 48 hours is required for the principal teaching field. If a student prepares for a second teaching field, at least 27 hours may be required in that field. |     |
| Health Education .....  | 3   |
| Physical Education Activity Courses .....   | 3   |
| Electives .....   | 14  |
|   | 192 |

## 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 disability 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 is being revised. Interested students should contact the Chairperson of Elementary Education or Special Education for program description and requirements.

## 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 200 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   |    |
| Three 1-hour physical education activity courses   |    |
| Professional Education Requirements .....  | 16 |
| Counselor Education 305  |    |
| Elementary Education 314, 337, 338   |    |
| Special Education Requirements .....   | 64 |
| One of the following specializations: (see course listings for prerequisite)   |    |

### EDUCABLE MENTALLY HANDICAPPED

|  |    |
|--|----|
| Counselor Education 422 or Psychology 421 .....  | 4  |
| Physical Education 350 .....   | 4  |
| Psychology 432 .....   | 4  |
| Special Education 400, 410b, 410g, 411, 420b, 470, 430, 481, 499, and one Sp. Ed. elective ..... | 52 |

### LEARNING DISABLED

|   |    |
|---|----|
| Counselor Education 422 or Psychology 421 .....   | 4  |
| Physical Education 350 .....  | 4  |
| Psychology 432 .....  | 4  |
| Special Education 400, 410g, 411, 420a, 430, 470, 481, 496, 499, and one Sp. Ed. elective ..... | 52 |

### SOCIAL-EMOTIONAL DISORDER

|  |    |
|--|----|
| Counselor Education 422 or Psychology 421 .....  | 4  |
| Physical Education 350 .....   | 4  |
| Psychology 432 .....   | 4  |
| Special Education 400, 410a, 410g, 411, 420a, 470, 430, 481, 499, and one Sp. Ed. elective ..... | 52 |

|                      |     |
|----------------------|-----|
| Elective hours ..... | 28  |
|                      | 192 |

## Option B — Dual Certification

Interested students should contact the Chairperson of Elementary Education or Special Education for program description and requirements.

### 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 teaching education programs. It is needed in order to meet the degree requirements of the School, the certification requirements of the State of Illinois and Missouri, and the standards of the National Council for the Accreditation of Teacher Education.

Student teaching requires full day involvement in a public school. Therefore, students should avoid taking other courses or employment during student teaching and should schedule it at a time when they will be free of other demands upon time and energy. Requests for an overload during student teaching must be approved by the Department Chairperson and the



Associate Dean. Student teaching during the summer quarter is not available.

## APPLICATION PROCEDURES

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 must be met prior to registering and receiving an assignment for student teaching:

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

### EARLY CHILDHOOD EDUCATION

Students majoring in early childhood education must complete a 16-hour sequence in early childhood education, including 201 and 317, prior to student teaching. It is necessary to have a 3.4 overall grade point or higher in order to student teach. A student must not have a grade of D or below or any incompletes in any professional education courses.

### ELEMENTARY EDUCATION

Students majoring in elementary education complete a minimum of 38 quarter hours in professional education courses prior to student teaching. Students must complete Ed. El. 200, Psych. 301, Field Experiences I and II prior to student teaching. It is necessary to have a 3.4 overall grade point or higher in order to student teach. A student must not have a grade of D or below or any incompletes in any professional education courses.

### 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 Center, Secondary Education 401c, Student Teaching should be preceded by Secondary Education 214, 401a, and 401b.
3. It is also expected that secondary education student will have completed 32 hours of their studies in the 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 case approved by the Secondary Education Department Chairman. This assignment requires 17 hours of professional education courses prior to student teaching including Counselor Education 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.

**495—1 to 8 SELECTED TOPICS.** Varied content related to adult and continuing education. To be offered from time to time as need exists and faculty interest and time permit. May be repeated until a maximum of 16 hours have been earned provided no topic repeats itself.

### 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 A SURVEY OF HUMAN DEVELOPMENT.** Survey of 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.

**480r—4 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.

**483—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: student must have accumulated 64 quarter hours and have a 3.4 G.P.A.

**201—4 UNDERSTANDING THE PRE-PRIMARY CHILD.** An introductory study of the characteristics of infants, toddlers, and young children (birth through six) with emphasis on study and observation in both informal and formal settings.

**202—4 LEADERSHIP ROLES IN EARLY CHILDHOOD EDUCATION.** Opportunities to explore interpersonal relationships via examination of values, beliefs, attitudes, and goals. Communications skills and role relationships: teacher vis-a-vis children, colleagues, and administrators.

**314—4 ELEMENTARY SCHOOL METHODS.** The fundamental principles of education, the interpretation of current educational theory and practice, the processes of teaching and learning involved in elementary education. Field experience in public schools is required. Prerequisites: 200, admission to the program, concurrent enrollment in 337, 343, and 365. Registration by permit only.

**317—4 PRE-KINDERGARTEN METHODS.** Instructional strategies appropriate for pre-school children, with emphasis on interrelatedness of sensorimotor, conceptual, and social development. Learning objectives in language, numbers, science, and social studies in the context of creative activities such as art, dramatics, storytelling, poetry, and music. Prerequisite: 201.

**337—4 READING IN THE ELEMENTARY SCHOOLS.** The principles of reading, factors that condition reading, together with grade placement of aims and materials; diagnostic and remedial treatment. Field experiences in public schools are required. Prerequisites: 200, admission to the program, concurrent enrollment in 314, 343, and 365. Registration by permit only.

**338—4 CORRECTIVE PROCEDURES IN READING.** Techniques and materials for diagnosing and correcting reading disabilities with emphasis on meeting instructional needs of each individual in the classroom.

Involvement in laboratory experiences with disabled readers. Prerequisites: completion of Field Experience I, concurrent enrollment in 415, 442, and 445. Registration by permit only.

**351b—4 to 16 ELEMENTARY STUDENT TEACHING: ART.** Prerequisites: 365, 314, 337.

**351c—4 to 16 ELEMENTARY STUDENT TEACHING: MUSIC.** Prerequisites: 365, 314, 337.

**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. Field experiences in public schools are required. Prerequisites: 200, admission to the program, concurrent enrollment in 314, 337, and 343. Registration by permit only.

**410—4 PRINCIPLES OF PRE-PRIMARY EDUCATION.** Examination of research and other materials dealing with intervention for strategies for preschool children. Principles governing the stimulation of readiness for school experiences and related strategies both for preschool children and of parent involvement.

**412—4 EARLY CHILDHOOD CURRICULUM.** A study of the theory, design, organization, implementation, and evaluation of early childhood curriculum. Prerequisite: 317 or consent of instructor.

**413—4 CHILDREN'S LITERATURE.** Emphasizes types of literature, analysis of literary qualities, and selection and presentation of literature for children. Prerequisites: 200, admission to the program or graduate standing.

**415—4 TEACHING MATHEMATICS IN THE ELEMENTARY SCHOOL.** Items to be taught include the grade placement of content, newer instructional practices and materials of instruction, and means of evaluating achievement. Field experiences in public schools are required. Prerequisites: completion of Field Experience I, concurrent enrollment in 338, 442, and 445. Registration by permit only.

**420—4 DEVELOPMENT AND TRENDS IN EARLY CHILDHOOD EDUCATION.** Exploration of the history, philosophy, and current trends underlying strategies for teaching the young child. Prerequisite: 201 or 410.

**421—4 CHILD, FAMILY, AND COMMUNITY RELATIONSHIPS.** Designed to expose early childhood education personnel (pre-school, 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. Field experiences in public schools are required. Prerequisites: completion of Field Experience I, concurrent enrollment in 338, 415, 445. Registration by permit only.

**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. Field experiences in public schools are required. Prerequisites: 200, admission to the program, concurrent enrollment in 314, 337, 365. Registration by permit only.

**445—4 LANGUAGE ARTS IN THE ELEMENTARY SCHOOL.** Current practices in the teaching of the language arts other than reading. Attention to evaluation of teaching materials in these areas. Field experiences in public schools are required. Prerequisites: completion of Field Experience I, concurrent enrollment in 338, 415, and 442. Registration by permit only.

**450—4 to 16 EARLY CHILDHOOD STUDENT TEACHING.** Not for graduate credit. Prerequisites: 16 hours of Early Childhood course work to include Ed. El. 317. Registration by permit only.

**451a—16 ELEMENTARY STUDENT TEACHING.** Not for graduate credit. Prerequisites: completion of Field Experience II. Registration by permit only.

**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 the 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.

**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 education 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.

**250—4 MOOD MODIFIERS.** An in-depth study of drug and non-drug alternatives that modify mood and behavior. The emphasis is on factors influencing use, psychological effects, legal control, and teaching strategies. Prerequisite: 201 or consent of instructor.

**300—4 INTRODUCTION TO EPIDEMIOLOGY.** The study of causes, prevention, and control of communicable, chronic, and degenerative diseases in various community settings. Prerequisite: 201 or consent of instructor.

**302—4 DRIVER EDUCATION AND TRAINING.** Preparation of the college student for teaching driver education and training in the secondary school. Prerequisite: a valid driver's license.

**313s—4 PRINCIPLES OF ACCIDENT PREVENTION.** Presents an analysis of the causes of a variety of accidents including home, school, occupational, and recreational. Emphasis will be placed on safety procedures related to the reduction and/or prevention of accidents. Experiences will be provided in methods of safety education.

**334s—4 FIRST AID.** An American National Red Cross Advanced First Aid course with lectures, demonstrations, and practical application. The completion of the course leads to certification in both Advanced First Aid and Cardio-Pulmonary Resuscitation (CPR).

**350—4 HEALTH EDUCATION IN THE ELEMENTARY SCHOOL.** In-depth study of the elementary teacher's role in all phases of the school health program including appraisal and screening, referral, safety, health planning, curriculum integration and teaching strategies. Prerequisite: 201 or consent of instructor.

**355—4 INTRODUCTION TO COMMUNITY HEALTH.** An examination of the health educator as he/she relates to the role and function of local, state, and national health agencies in their effort to meet community health needs and solve community health problems. Prerequisite: 201 or consent of instructor.

**360—4 NUTRITION, EXERCISE, AND WEIGHT CONTROL.** Presents the relationship among nutritional needs, exercise, and weight control. Specific emphasis will be placed on nutrition and exercise as preventative measures with respect to obesity, diabetes, heart disease, cancer, and other health problems. An examination of teaching concepts and approaches will also be explored. Prerequisite: 201 or consent of instructor.

**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: 201 or 355.

**415s—3 WORKSHOP IN DRIVER EDUCATION AND TRAFFIC SAFETY.** Summer course designed for pre-service teachers of driver education and traffic safety. Individual and group problems are treated. Lectures by safety authorities, demonstrations, field trips, audio-visual materials, and individually supervised research in special problem areas. Prerequisite: 302 or equivalent.

**443s—4 METHODS AND MATERIALS IN DRIVER EDUCATION.**

**445s—2 DRIVER SIMULATION.** For in-service and pre-service teachers and supervisors of driver and traffic safety education. A program enabling teachers to instruct a large number of students in correct driving procedures and orient students to emergency situations too hazardous to duplicate on the highway. Prerequisite: 443s.

**460—4 METHODS AND MATERIALS IN SECONDARY SCHOOL HEALTH EDUCATION.**

**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.**

**480s—4 WORKSHOP IN SAFETY EDUCATION.** Summer course for in-service teachers, nurses, administrators, advanced students, and others interested in safety education as it applies to the public school and the community. Individual problems, lectures, demonstrations, films, field trips, and individual group study in special areas of interest. Prerequisite: 301 or 323 or consent of instructor.

**485s—4 CURRICULUM DEVELOPMENT IN DRIVER EDUCATION.** The structure, content and approaches of curriculum development as applied to traffic safety based upon the Highway Transportation System operation task analysis, with appropriate learning activities. Prerequisite: 302.

## INSTRUCTIONAL TECHNOLOGY

**401—4 INSTRUCTIONAL MEDIA SERVICES.** An overview of instructional media services in relation to the educational objectives of elementary and secondary schools and community college programs. organization, supervision, finance, housing, equipment, standards and evaluation.

**402—4 MEDIA SELECTION.** Principles for selection and evaluation of print and nonprint media; use of standard selection aids, and review, writing 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 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 application, 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



canary through adult levels. Audio and visual materials and procedures are emphasized with some attention given to bibliographies and reference books for teachers.

**330-2 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.

**340-2 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.

**345-4 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: 317 or consent of instructor.

**347-2 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.

**350-4 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.

**358-4 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.

**360-4 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.

**361-4 GRAPHICS FOR INSTRUCTIONAL TELEVISION.** Preparation of visual materials for instructional television programs for teaching in schools. Prerequisites: 445, 460.

**390-1 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 a 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 (1 per activity) INDIVIDUAL AND TEAM ACTIVITY.** (c) Basketball, (f) Soccer, (j) Softball, (n) Cross Country, (r) Racquetball, (u) Wrestling, (x) Handball.

### 112-1 BASIC BODY MOVEMENT.

### 115-3 (1,1,1) RESTRICTED PHYSICAL EDUCATION.

**116-(1 per activity) SWIMMING.** (a) Beginning Swimming, (b) Intermediate Swimming.

**116d-1 LIFE SAVING AND WATER SAFETY.** Theory and practice of techniques involved in water safety. Personal safety and rescue methods for use in, on, and about the water. Leads to American Red Cross Senior Life Saving Certificate. Prerequisites: proficiency test, preliminary swimming.

**117-(1 per activity) DANCE.** (a) Square, (b) Folk, (c) Social, (d) Beginning Contemporary, (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, (l) Sailing, (m) Fencing, (n) Field Hockey, (o) Boating and Canoeing, (r) Stunts and Tumbling, (s) Gymnastics, (w) Track and Field, (z) Recreational Sports, (y) Judo.

**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, (d) Canoeing and Sailing, (e) Beginning and Intermediate Swimming, (f) Advanced Swimming and Senior Life Saving, (g) Fencing and Badminton. Prerequisite: primary or secondary concentration in physical education.

**303-8 (4,4) HOMOKINETICS.** (a) Structural and functional basis of human performance, (b) Mechanics applied to physical performance; analysis of selected motor activities; application of physical principles to specific instructional problems. Prerequisite: (a) course in general biology; (b) 303a, four activity courses.

**304a-4 BASIC CONCEPTS OF PHYSICAL EDUCATION.** Provides a background for the understanding of the history, principles, and scientific bases for physical education. Designed to orient the beginning student of physical education about the profession. Prerequisite: concurrent enrollment with 304b.

**304b-2 BASIC CONCEPTS OF MOVEMENT.** An introductory course designed to expose the student to a wide variety of fundamental stability, locomotive and manipulative movement patterns and their relationship to movement skills and abilities within the physical education curriculum. Prerequisite: concurrent enrollment with 304a.

**305-4 PHYSICAL EDUCATION FOR THE ATYPICAL STUDENT.** The recognition of physical deviations and the provisions of special or modified physical education or recreational activities for such students. Prerequisite: 303a.

**323-3 (1,1,1) OFFICIATING TECHNIQUES.** Study of rules and their interpretation; requirements for ratings given by the United States Field Hockey Association and the National Association of Girls' and Women's Sports. Officiating practice required. (a) Fall: field hockey and soccer, (b) Winter: basketball, (c) Spring: volleyball and softball.

**350-4 METHODS AND MATERIALS FOR TEACHING PHYSICAL EDUCATION ACTIVITIES IN THE ELEMENTARY SCHOOL.** The organization and conduct of the program, program planning, evaluation of materials, observation and practice in creative rhythms, singing games, folk dancing, and games of low organization. (Required for elementary education.)

**382-4 METHODS AND MATERIALS FOR TEACHING SECONDARY PHYSICAL EDUCATION.** Conduct of programs in physical education for grades 7-12. Emphasis on teaching methods and materials for the instructional program. Attention to routine procedures and common problems related to teaching. Prerequisite: six 300-level activity courses.

**383-3 OUTDOOR AND INDOOR GROUP GAMES.** Prepares student to develop a program of outdoor and indoor group games for the elementary level. Emphasis on techniques, fundamentals, and strategy. Stresses the use of lead-up games in the program.

**384-2 RHYTHMICAL ACTIVITIES.** Deals with all phases of the rhythmical program, teaching techniques, analysis of problems, evaluation techniques. Includes experience in working with children. Prerequisite: 302a or equivalent.

**387-2 DEVELOPMENTAL SKILLS.** Stresses basic developmental skills that should be included in physical education 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.

**389-2 to 6 AFFILIATION IN PHYSICAL EDUCATION.** Observing and assisting instructor in planning, scheduling, and conducting a physical education program by working in area schools. May be repeated for maximum of 6 hours credit. Prerequisite: consent of instructor.

**390-2 EVALUATION TECHNIQUES IN THE ELEMENTARY SCHOOL PHYSICAL EDUCATION PROGRAM.** A study of the methods and concepts in measuring a child's growth and development and physical fitness index with emphasis on analyzing various skill tests and their application to the child. Prerequisite: 350.

**400-16 (2,2,2,2,2,2,2,2) COACHING.** Advanced theory and practice relating to skills, strategies, conditioning, organization, and administration of the principles underlying participation in interscholastic (a) soccer, (b)

baseball, (c) basketball, (d) wrestling, (e) cross country, (f) track and field, (g) golf, (h) tennis. Prerequisite: related activity course.

**402-4 ORGANIZATION AND ADMINISTRATION OF INTRAMURAL AND EXTRAMURAL ACTIVITIES.** Planning intramural programs of sports. Planning and coordinating extramural activities commonly associated with physical education.

**404-4 WORKSHOP IN DANCE FOR IN-SERVICE TEACHERS.** History of dance, values of dance, interpretation of music for dance, teaching techniques and facilities, and fundamental dance movements leading to knowledge and command of dance skills.

**410-4 ORGANIZATION AND ADMINISTRATION OF PHYSICAL EDUCATION PROGRAMS.** The nature of the administrative process; analysis of resources in program planning; policies and procedures for implementation of programs; line and staff relationships; budget and finance; facility use; legal considerations. Prerequisite: senior standing or 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 other's nonverbal behavior. Prerequisite: 300a or GSS 260.

**311-4 EXPERIMENTAL PSYCHOLOGY: LEARNING.** Investigates the processes governing behavioral change. Emphasizes experimental studies of conditioning, memory, and forgetting. Laboratory work includes 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 the 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 behavioral theories in the areas of learning, motivation, and perception. Theories that are of contemporary significance and are comprehensive in nature are emphasized. Prerequisite: one of 311, 312, 313, or consent of instructor.

**405-4 PSYCHOLOGY OF WOMEN.** The psychological and cultural history of women, sexuality of women, various relevant psychological theories of socialization, psychopathology in women and related current issues. Laboratory includes emphasis on techniques for awareness of personal change. Prerequisite: 300a or GSS 260 and advanced standing.

**409-4 HISTORY AND SYSTEMS.** Study of the important antecedents of contemporary scientific psychology. Considers issues, conceptual developments, and research advances, and presents the major schools of 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 of teaching psychology and acquaints students with library, laboratory, and testing resources. Prerequisite: advanced standing.

**414-4 ALTERED STATES OF CONSCIOUSNESS.** Uses known principles of sensation, perception, and neuropsychology to explore phenomena of normal and altered states of consciousness; i.e., meditation, hypnosis, and biofeedback. Class discussion supplemented by films and demonstrations. Prerequisites: 300a or GSS 260.

**415-4 ENVIRONMENTAL PSYCHOLOGY.** (Same as Environmental Studies 415.) Surveys man-environment relationships from a psychological perspective. Selected topics such as environmental perception, attitudes, spatial behavior, stress, and habitat needs are examined. Some attention to psychological methods of research and problem solving. Prerequisite: 300a or consent of instructor.

**420-4 BEHAVIOR MODIFICATION.** An examination of the learning principles, evaluation methods and techniques of managing and modifying human behavior. The learning principles consist largely of knowledge based on the scientific inquiry of operant and respondent conditioning. Prerequisite: 300a or GSS 260.

**421-4 PSYCHOLOGICAL TESTS AND MEASUREMENT.** Principles of psychological measurement, including errors of measurement, techniques of estimating reliability and validity, techniques of test construction.

tion, 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 or 307.

**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 or graduate standing.

**468—4 PSYCHOLOGY OF HUMAN SEXUALITY.** Explores the psychological aspects of human sexuality. Topics include crosscultural sexuality, sexuality in childhood and adolescence, adult sexuality, and roles, typical sexual behavior, special forms of sexual expression, and sexual dysfunction, as well as other areas. Prerequisite: consent of instructor.

**473—4 PERSONNEL PSYCHOLOGY.** Psychological methods in selection, placement, evaluation, and criterion development. Emphasis on principles and techniques with some examples of application to decision making in business and industry. Prerequisite: 320 or consent of instructor.

**474—4 ORGANIZATIONAL PSYCHOLOGY.** Organizational and individual interaction influence on behavior and how these affect job satisfaction, motivation, performance, and the psychological climate in the work setting. Prerequisite: 320 or consent of instructor.

**479—4 PSYCHOLOGY OF INDUSTRIAL CONFLICT.** Consideration of social and psychological factors underlying controversies between workers and management. Prerequisite: 320 or consent of instructor.

**487—4 PSYCHOLOGY OF AGING.** An in-depth examination of psychological factors involved in adjustment to the aging process. Special problems such as adjustment to retirement, leisure time, widowhood, aloneness and death and dying, as well as evaluation techniques and general principles of treatment and prevention. Prerequisites: 304 or graduate standing.

**490—1 to 4 INDEPENDENT PROJECTS.** Independent readings and projects in psychology. Prerequisite: consent of instructor and chairperson. May be repeated for a total of 8 hours.

**495—1 to 4 SEMINAR: SELECTED TOPICS.** Varied content. To be offered from time to time as need exists and as faculty interest and time permit. Prerequisite: consent of instructor. May be repeated for a total of 16 hours.

## RECREATION

**100—4 INTRODUCTION TO RECREATION.** The philosophy and history of recreation. Emphasis on principles and standards conducive to sound program development.

**200—4 PROGRAMS IN RECREATION.** An introduction to the various recreational media. Considerable attention to those programs commonly found in a leisure oriented society. Prerequisite: 100.

**312—2 to 6 PLAYGROUND LEADERSHIP.** Field experiences. Prerequisite: consent of instructor.

**348—3 RECREATION LEADERSHIP.** Leadership functions and skills related to recreational settings.

**349—2 CAMPING EDUCATION.** Designed to give the potential camp counselor an understanding of the camp, its physical set-up, equipment, and necessary routines; its personnel, purpose, traditions, and possibilities.

**365—3 ORGANIZATION AND ADMINISTRATION OF COMMUNITY RECREATION.** The social, economic, and governmental structure of the community; establishing the community recreation program; problems of facilities, equipment, finance, promotion; selecting and supervising personnel; integration with associated programs. Prerequisite: consent of instructor.

**389—4 to 6 AFFILIATION IN RECREATION.** A field experience for recreation majors to observe and assist in an approved recreational program in the area under professional supervision. Prerequisite: consent of instructor.

**390—4 RECREATIONAL PLANNING.** Analysis of planning principles and standards for areas and facilities associated with recreation programs. Attention to general building features as well as special requirements. Prerequisite: 200.

**400—16 INTERNSHIP IN RECREATION.** Participation as full-time intern for one quarter in one or more recreational agencies. Under university and agency supervision, the intern engages in planning, administering, and implementing recreational activities. Not offered for graduate credit. Prerequisite: 390.

**410—4 PROBLEMS IN RECREATION.** Analysis of specific contemporary factors relating to relevant economic, political, sociological, and psychological problems. Prerequisite: 390.

**420—3 PARKS AND RECREATION LAW.** Interpretation and application of local, state, and federal statutes pertaining to recreation programs operated by public and quasi-public agencies. Emphasis on personal negligence, liability, and governmental immunity. Prerequisite: 390.

## SECONDARY EDUCATION

**215—4 INTRODUCTION TO SECONDARY EDUCATION.** Through three types of settings—field experiences and on campus and off campus seminars—students are given the opportunity to explore, experience, and study teaching as a profession. Required of all students before they may be considered for admission into secondary teacher education.

**315—5 HIGH SCHOOL METHODS.** Study and discussion in various types of procedures used for effective classroom teaching. The problem approach and unit method are stressed. Participation in microteaching laboratory. Prerequisites: Counselor Education 305, Foundations of Education 355.

**352—4 to 16 SECONDARY STUDENT TEACHING.** Practice of teaching in junior and senior high school subjects in the student teacher's area of concentration. The application of theory to practice as it applies to the teacher's responsibility in the secondary education classroom and the school as a whole. These experiences to be arranged under the direction of a University supervisor in cooperation with a qualified and experienced public school teacher.

**401—33 (8,9,16) SECONDARY EDUCATION TEACHER TRAINING SYSTEM.** The preparation of secondary school teachers through a systems approach with emphasis on field experiences conducted in Teacher Learning Centers. Alternative learning experiences provided according to needs of students and profession. Must be taken in sequence or consent of department chairman. Not for graduate credit. Prerequisites: 215, admission into secondary education.

**407—4 THE MIDDLE AND JUNIOR HIGH SCHOOL.** Designed to help prospective middle and junior high school teachers understand the background and present status of these schools. The development, population, curriculum purposes, and methods of the schools with a major emphasis on curriculum.

**440—4 TEACHING READING IN THE SECONDARY SCHOOL.** A foundation course in how to teach reading in junior and senior high school; developmental and corrective reading programs, appraisal of reading abilities; methods and materials of instruction. Prerequisite: 315.

**481—4 DRUG USE AND ABUSE.** Relevant background information for teachers, curriculum development specialists, administrators, and others who are interested in the problems in drug use and abuse as they relate to students at the secondary school level and above.



**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.

**495—1 to 8 SELECTED TOPICS.** Varied content. To be offered from time to time as need exists and as faculty interest and time permit. May be repeated until a maximum of 16 hours have been earned provided no topic repeats itself. Prerequisite: consent of instructor.

## SPECIAL EDUCATION

**400—4 THE EXCEPTIONAL CHILD.** An introductory overview of the physical, emotional, and social traits of all types of exceptional children. Effects of handicaps in learning situations and methods of differentiation, as well as techniques for rehabilitation. Not for graduate credit.

**410a—4 PROBLEMS AND CHARACTERISTICS OF BEHAVIOR DISORDERED CHILDREN.** A review and study of the concepts of screening, assessment, placement, programming, and behavior management as they relate to the education of children with behavior disorders. Emphasis on increasing the student's knowledge concerning behaviorally disordered children. Prerequisite: 414 or concurrent enrollment.

**410b—4 PROBLEMS AND CHARACTERISTICS OF THE MENTALLY RETARDED CHILD.** Educationally significant characteristics including cognitive, emotional, and sociological considerations. Problems of definition, screening, diagnosis, classification systems, and classroom management. Prerequisite: 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 talented children.

**410f—4 PROBLEMS AND CHARACTERISTICS OF THE SOCIALLY MALADJUSTED CHILD.** Definition and characteristics of the socially maladjusted, as related to problems of identification and classroom practice. A developmental approach to causes and to recommended practice at preschool, elementary, and secondary levels. Prerequisite: 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.

**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. Prerequisite: 410g.

**413a—4 DIRECTED OBSERVATION OF EMOTIONALLY DISTURBED CHILDREN.** Student observation and participation in group and individual work with mentally retarded children. Often taken concurrently with 410b. Prerequisite: consent of department chairperson.

**420a—4 METHODS AND MATERIALS FOR CHILDREN WITH LEARNING AND/OR BEHAVIORAL PROBLEMS.** Methods and materials needed in teaching children with learning and/or behavioral problems in special education programs. Prerequisite: 411.

**420b—4 METHODS AND MATERIALS IN THE EDUCATION OF THE EDUCABLE MENTALLY HANDICAPPED.** Methods and materials needed in teaching educable mentally handicapped children. Prerequisite: 411.

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

**427—4 PHYSICAL EDUCATION AND RECREATION FOR THE HANDICAPPED.** (See Physical Education 427.)

**430—4 BEHAVIOR MANAGEMENT IN SPECIAL EDUCATION.** The application of biophysical, psychodynamic, ecological, and learning theories to the management of the behavior of exceptional children. Prerequisite: 414.

**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: 410g.

**441—4 PRESCRIPTIVE TEACHING—PRESCHOOL EXCEPTIONAL CHILDREN.** The use of formal and informal instruments in assessment of academic, cognitive, and perceptual-motor development of preschool exceptional children. Emphasis on diagnosis and remediation. Participation experiences with preschool exceptional children and parent involvement. Prerequisite: 440.

**470—4 SECONDARY SCHOOL PROGRAMS FOR EXCEPTIONAL CHILDREN.** Organizational, administrative, and curricular aspects of programs for exceptional children at the secondary level. Emphasizes adjustments needed because of intellectual, behavioral, physical, or learning disabilities. Stresses work-study programs. Prerequisite: 440.

**480r—4 INTRODUCTION TO REHABILITATION.** (Same as Counselor Education 480r.) A survey of the philosophy, procedures, and practice underlying the rehabilitation movement, including the history and legislation that have contributed to its rapid development.

**481—4 SEMINAR IN THE INSTRUCTION OF EXCEPTIONAL CHILDREN AND ADOLESCENTS.** A concluding and synthesizing seminar for students seeking to be classroom and/or resource room teachers of exceptional children. Focus is on the applied aspects: assessment, prescriptive teaching, teaching evaluation, individual and group behavior management techniques, instructional methodologies, and instructional materials. Prerequisite: concurrent enrollment in 353.

**496—1 to 8 READINGS AND INDEPENDENT STUDY IN SPECIAL EDUCATION.** Study of highly specific problem area in the education of exceptional children. Open only to selected seniors and graduate students. Topic and conditions of study must be approved by contract. Hours may be repeated, with a maximum of 8 hours applicable to degree. Prerequisite: consent of instructor.

**498—4 SEMINAR: SELECTED TOPICS IN SPECIAL EDUCATION.** Special education concepts, teaching strategies, and current concerns to various educational personnel. May be repeated, with a maximum of 8 hours applicable to a degree. Prerequisite: consent of instructor.

**499—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. Not for graduate credit.

## SCHOOL OF EDUCATION FACULTY

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

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

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

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

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

Donald Baden, Ed.D., Associate Dean and Associate Professor of Elementary Education

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

Eldon Bigham, M.S., Instructor of Health, Recreation, and Physical Education

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

Louis Bobka, M.S., Assistant Professor of Health, Recreation and Physical Education

Henry T. Boss, Ed.D., Associate Professor of Secondary Education

Richard W. Brimer, Ph.D., Assistant Professor of Special Education

Erwin H. Brinkmann, Ph.D., Professor of Psychology

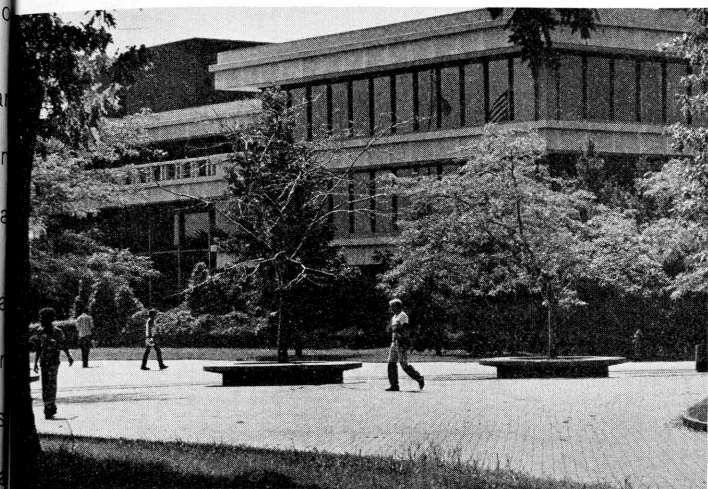
Warren L. Brown, Ed.D., Associate Professor of Secondary Education

- H. Bruce Brubaker, Ed.D., Professor of Educational Administration and Supervision
- Robert M. Bruker, Ph.D., Associate Professor of Secondary Education
- Wilfred Buddell, M.S., Assistant Professor of Health, Recreation, and Physical Education
- William Burcky, Ph.D., Associate Professor of Counseling Education
- 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
- Donald Darnell, Ed.D., Associate Professor of Elementary Education
- Robert A. Daugherty, Ph.D., Professor of Psychology
- John R. Davis, M.S., Adjunct Instructor of Secondary Education
- Barbara J. DeLong, Ph.D., Associate Professor of Health, Recreation, and Physical Education
- Vincent DeSanctis, Ph.D., Assistant Professor of Secondary Education
- Jimmie Dudley, M.S.E., Instructor of Health, Recreation, and Physical Education
- 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 Forhetz, 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
- Margaret B. Garanzini, M.Ed., Instructor of Special Education
- Dorothy K. Gilles, Ph.D., Assistant Professor of Special Education
- Malcolm Goldsmith, Ph.D., Assistant Professor of Health, Recreation, and Physical Education
- George H. Goodwin, Ed.D., Associate Professor of Secondary Education
- Joseph Gore, Ph.D., Associate Dean and Professor of Secondary Education
- Dean Gray, Ph.D., Associate Professor of Counselor Education
- Arthur Grist, M.P.H., Assistant Professor of Health, Recreation, and Physical Education
- Robert Guelker, M.S., Associate Professor of Health, Recreation, and Physical Education
- Pamela C. Gunsten, Ph.D., Assistant Professor of Health, Recreation, and Physical Education
- Dorothy Happel, M.S., Lecturer in Elementary Education
- Merrill Harmin, Ph.D., Professor of Secondary Education
- Jesse Harris, Ph.D., Adjunct Instructor of Counselor Education
- Jimmy L. Hatfield, Ph.D., Associate Professor of Psychology
- Barbara Havis, M.S., Instructor of Elementary Education
- Raymond A. Helsel, Ed.D., Professor of Educational Administration and Supervision
- Zadia C. Herrold, Ph.D., Chairperson and Professor of Health, Recreation, and Physical Education
- Robert Hildebrand, Ph.D., Associate Professor of Foundations of Education
- Olin T. Hileman, Emeritus Professor of Elementary Education
- David Hofmann, Ed.D., Chairperson and Associate Professor of Foundations of Education
- Gary L. Hull, Ph.D., Chairperson and Associate Professor of Instructional Technology
- Arthur Jordan, Ed.D., Associate Professor of Elementary Education
- Orville Joyner, Ph.D., Associate Professor of Instructional Technology
- Donald R. Keefe, Ph.D., Associate Professor of Secondary Education
- Walter C. Klein, H.S.D., Emeritus Associate Professor of Health, Recreation, and Physical Education
- Kenneth Kleinman, Ph.D., Chairperson and Professor of Psychology
- Bobbi Anne Knewitz, M.S., Instructor of Elementary Education
- David Kohfeld, Ph.D., Professor of Psychology
- Stefan P. Krchniak, Ph.D., Professor of Educational Administration and Supervision
- Larry D. Kristoff, M.S., Assistant Professor of Health, Recreation, and Physical Education
- Robert Lamp, Ph.D., Professor of Psychology
- Charles A. Lee, Emeritus Professor of Foundations of Education
- Roy E. Lee, M.A., Assistant Professor of Health, Recreation, and Physical Education
- Ruby Long, Ed.D., Chairperson and Professor of Special Education
- George C. Luedke, Jr., M.P.E., Assistant Professor of Health, Recreation, and Physical Education
- Eldon H. Madison, Ph.D., Associate Professor of Instructional Technology
- Donald C. Madson, Ed.D., Associate Professor of Secondary Education
- Robert E. Mason, Ph.D., Professor of Foundations of Education
- John N. McCall, Ph.D., Professor of Psychology
- Robert McLaughlin, Ph.D., Professor of Psychology
- Frank B. McMahon, Jr., Ph.D., Professor of Psychology
- William Mermis, Ph.D., Professor of Counselor Education
- Valerie E. Meyer, Ph.D., Assistant Professor of Secondary 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
- Susan Nall, Ph.D., Chairperson and Assistant Professor of Elementary Education
- Charles E. Nelson, Ph.D., Associate Professor of Instructional Technology
- Jeanne Nolan, Ph.D., Assistant Professor of Instructional Technology
- Thomas O'Brien, Ph.D., Professor of Elementary Education
- James Owens, Ph.D., Assistant Professor of Elementary Education

- Delbert Patty, Ed.D., Associate Professor of Elementary Education
- Jerome A. Popp, Ph.D., Professor of Foundations of Education
- John R. Reiner, Ph.D., Associate Professor of Counselor Education
- Don Lieber Repovich, Ed.D., Assistant Professor of Counselor Education
- Nicholas Reuter, Ph.D., Associate Professor of Psychology
- Rosanda Richards-Ellsworth, Ph.D., Associate Professor of Foundations of Education
- Gerold Robbins, Ph.D., Associate Professor of Psychology
- Dean Rochester, Ed.D., Chairperson and Professor of Counselor Education
- Robert Rockwell, Ph.D., Associate Professor of Elementary Education
- Billy J. Rogers, Ph.D., Assistant Professor of Psychology
- Terrence Rohen, Ph.D., Associate Professor of Counselor Education
- Ivan Russell, Ph.D., Professor of Elementary Education
- Robert Russo, Ed.D., Professor of Psychology
- V. Ellen Sappington, Ph.D., Assistant Professor of Health, Recreation, and Physical Education
- Myrna Martin Schild, M.S., Assistant Professor of Health, Recreation, and Physical Education
- John H. Schnabel, Emeritus Professor of Secondary Education
- Mary Sue Schusky, M.S., Assistant Professor of Instructional Technology
- Virginia F. Shafer, Emerita Associate Professor of Special Education
- Thomas Shea, Ed.D., Professor of Special Education
- Norman E. Showers, Ed.D., Professor of Health, Recreation, and Physical Education
- Patricia J. Sims, M.S., Instructor of Special Education
- Kathryn K. Skinner, Ph.D., Associate Professor of Psychology
- 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., Professor of Psychology
- Mark M. Tucker, Ed.D., Professor of Special Education
- Charles J. Turner, Ed.D., Associate Professor of Elementary Education
- David Van Horn, M.S., Adjunct Assistant Professor 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., Associate Professor of Secondary Education



# 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**

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 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 Art; a Bachelor of Fine Arts degree in Art and Design; and a Bachelor of Science degree with an option in Studio Art or, in conjunction with the School of Education, Art Education.

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

To augment the academic program the Department of Art and Design has a comprehensive program in the visual arts which includes a Visiting Artists Program and an Exhibitions Program. These programs provide an opportunity for both general students and art majors to come in contact with internationally known artists and artworks that are brought to the University. The Department of Art and Design co-sponsors some of these programs with the cooperation of the University's Office of Cultural Arts and University Museums.

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

|   |     |
|---|-----|
| General Studies Requirements (See Chapter 4. Waive GHA-8) .....   | 60  |
| Requirements for Major in Art .....   | 96  |
| Foreign Language .....  | 12  |
| Art 100-15, 202-15, 225-9 .....   | 39  |
| 18 hours from at least five of the following: Art 302, 305, 310, 312, 331, 341, 358, 377, 384, 386, 393 .....   | 18  |
| Art history .....   | 6   |
| 15 additional hours from one of the following studio areas: painting, drawing, printmaking, sculpture, ceramics, fiber/fabric, jewelry, photography, graphic design, or multi-media ..... | 15  |
| Art electives .....   | 6   |
| Electives or Minor .....  | 36  |
|   | 192 |

### Art History

|  |     |
|--|-----|
| General Studies Requirements (See Chapter 4. Waive GHA-8) .....  | 60  |
| Requirements for Major in Art History .....  | 75  |
| Foreign Language .....   | 12  |
| Art 225-9 .....  | 9   |
| 54 hours from the following: GHA 310, 311, 312, 315, 316, 317, Art 424, 447, 448, 449, 469, 481, 483 .....   | 54  |
| Electives and/or Minor .....   | 57  |
| (Majors are urged to elect Philosophy 360 and Anthropology 305 plus courses in nonvisual arts and history. Studio work is encouraged and additional language study advised.) |     |
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## Bachelor of Science Degree, School of Fine Arts and Communications

|   |     |
|---|-----|
| General Studies Requirements (See Chapter 4. Waive GHA-8) .....   | 60  |
| Requirements for Major in Art .....   | 94  |
| Art 100-15, 202-18, 225-9 .....   | 42  |
| 18 hours from at least five of the following: Art 302, 305, 310, 312, 331, 341, 358, 377, 384, 386, 393 ..... | 18  |
| Art history elective .....  | 3   |
| Art education courses 289, 300a, b, c, d, 365 .....   | 19  |
| Art electives .....   | 12  |
| Professional Education Electives .....  | 38  |
| (Includes: C.Ed. 305; Ed. El. 351b; Ed. Fd. 355; Ed. S. 215, 352; Sp. Ed. 414.)                               |     |
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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   |
| 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 ..... | 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 Electives <sup>1</sup> .....   | 44  |
|   | 192 |

<sup>1</sup>Art history courses are not included in these hours. Work in foreign languages strongly recommended.

NOTE: Students desiring secondary teaching certification with this degree would be permitted to count 6 hours 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 4) .....   |     |
| Requirements for Major in Art Education .....  |     |
| Art 100-15, 202-15 (a, b, c, d, required: elect e, f, g, or h), 225-9 .....                              | 39  |
| 18 hours from at least five of the following: Art 302, 305, 310, 312, 341, 358, 377, 384, 386, 393 ..... | 18  |
| Art history .....  | 3   |
| Art education courses 289, 300d, 365 .....   | 10  |
| Art 300a, b, c (for K-14 certification) .....  | (9) |
| Professional Education Courses .....   |     |
| See Secondary Education requirements   |     |
| Electives .....  |     |

During the last quarter of the junior year or first quarter of the senior year students may petition the art faculty to grant them the privilege of an exhibition of their work. Such an exhibit may be comprised of the work of an individual or may be comprised of the works of several seniors. Participation in an exhibition is not required for graduation from Southern Illinois University; permission to participate is extended in recognition of outstanding 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 15 additional hours from 400-level art history courses or 300-level 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 the 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 technique 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 objectives. They should have the opportunity to study the basic principles

of our economic systems as they apply to the media, to dissect communication messages of the mass media to discover their ethical and emotional appeals, to investigate the psychology 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, 210a, b or 212, 245 or 345 or 346, 303a, b, 320 or 321, 340, and 410. Electives must be taken from other mass communications offerings to total 54 hours of departmental courses.

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

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. Mass communications majors are increasingly in demand for public relations and public information positions and low-technology or closed circuit applications of television in business and industry.

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

#### Television-Radio

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

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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

|  |    |
|--|----|
| General Studies Requirements (See Chapter 4) .....   | 60 |
| Requirements for Major in Mass Communications .....  | 54 |
| Journalism 103, 201a, b, 210a, 210b or 212, 245 or 345 or 346, 303a, b, 320 or 321, 340, 410 .....   | 44 |
| Journalism, selected television-radio, and electives from other schools on campus as approved by the Department of Mass Communications ..... | 10 |
| Minor Outside Mass Communications .....  | 28 |
| (A double major is recommended.)   |    |
| General Electives (or additional minor in television-radio) .....  | 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 can 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 Concert Jazz Band, the Jazz Lab Band, Jazz Combos, 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.

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

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

#### Music Performance

|   |                      |
|---|----------------------|
| General Studies Requirements (See Chapter 4. Waive GHA-8) ..... | 60                   |
| Requirements for Major in Music .....                           | 118-126 <sup>1</sup> |
| Foreign Language .....  | 12 <sup>1</sup>      |
| Music 105-12, 205-12, 309a, 312a, 318a, 326a, 442a .....        | 39 <sup>2</sup>      |
| Music 357 .....   | 9                    |
| Music, private applied (major instrument) .....                 | 40-48                |
| Music, major ensemble (1 hour per quarter) .....                | 12 <sup>3</sup>      |
| Music, class piano, or secondary instrument/voice .....         | 6                    |
| Electives .....   | 14-9                 |

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<sup>1</sup>Students 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.

<sup>2</sup>Students with a specialization in piano may substitute 9 hours in Music 413 and/or 461 in lieu of 309a, 312a, and 442a.

<sup>3</sup>Students with a specialization in piano may substitute a maximum of 6 hours in 365 as partial fulfillment of this requirement.

## Music Education

|  |                  |
|--|------------------|
| General Studies Requirements (See Chapter 4. Waive GHA-8) .....  | 60               |
| Requirements for Major in Music .....  | 77-8             |
| 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 <sup>4</sup> |
| Voice proficiency or class .....   | 0-3 <sup>4</sup> |
| Music: class strings, woodwinds brass — 2 hours in each area .....                                     | 0-6 <sup>4</sup> |
| One year of French or German is recommended for the student with a choral emphasis in music education. |                  |
| Professional Education Requirements .....  | 3                |
| GSS 370 .....  | (4) <sup>5</sup> |
| Foundations of Education 355 .....   | 4                |
| Music 301 .....  | 9                |
| Counselor Education 305 .....  | 4                |
| Special Education 400 .....  | 4                |
| Elementary Education 351c, Secondary Education 352o .....  | 12               |
| Electives .....  | 18               |

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<sup>4</sup>Study on a secondary instrument and/or voice is possible if requirements for class instruction are met by proficiency.

<sup>5</sup>Secondary Education 215 may be substituted.

Before being approved for student teaching, students must satisfy the course of study and proficiency prerequisites established by the Music Department.

## Music Theory/Composition

|   |                      |
|---|----------------------|
| General Studies Requirements (See Chapter 4. Waive GHA-8) ..... | 60                   |
| Requirements for Major in Music .....                           | 118-126 <sup>1</sup> |
| Music 105-12, 205-12, 309-9, 312-9, 326-9, 357-9, 442-9 .....   | 69                   |
| Music, private applied .....                                    | 18 <sup>6</sup>      |
| Music, major ensemble .....                                     | 12                   |
| Music electives .....   | 18 <sup>7</sup>      |
| Electives .....   | 1                    |

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<sup>6</sup>Private applied piano until proficiency is satisfied; thereafter any instrument or voice. Students expected to enroll for applied study for a total of nine quarters.

<sup>7</sup>A program of electives must be approved by the theory committee. Students with emphasis in composition normally elect 412-9; those with emphasis in music theory normally elect 481.

Students with specialization in theory/composition include one year each of French and German. In their fourth year degree candidates must present to the Music Department either a composition or a written thesis in music theory as evidence of their achievement.

### Minor in Music

A minor in music includes 105-12, 2 hours of credit per quarter for three quarters in performance concentration, 3 hours in a major ensemble, GHA 230, Music 357c (357a or 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

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,<sup>1</sup> School of Fine Arts and Communications

|   |      |
|---|------|
| General Studies Requirements (See Chapter 4. Waive GHA-8) . . . . .   | 60   |
| Requirements for Major in Speech Communication . . . . .  | 48   |
| Foreign Language . . . . .  | (12) |
| Speech Communication 301, 330, 410, either 302a or b . . . . .  | 16   |
| Electives in Speech Communication . . . . .   | 32   |
| Minor . . . . .   | 24   |
| Courses in Cognate Fields (other than student's minor, to be chosen at discretion of student and adviser) . . . . . | 12   |
| Electives . . . . .   | 48   |

<sup>1</sup>Twelve 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 as 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-language pathologist studies human communication, its normal development, and its disorders. Included in his/her responsibilities may be the identification, evaluation, and remediation of individuals having communicative disorders; in addition the speech-language pathologist is involved in preventing disorders of speech, hearing, and language through public education, early identification of problems, and research into the causes and treatment of these programs.

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. Like the speech and language pathologist the audiologist is also concerned with research in the hearing process and hearing disorders.

In order to meet the standards established by the American Speech-Language-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,<sup>1</sup> School of Fine Arts and Communications

|  |    |
|--|----|
| General Studies Requirements (See Chapter 4. Waive GHA-8) <sup>2</sup> . . . . . | 60 |
|--|----|

<sup>1</sup>Twelve hours of foreign language are required for the B.A. option.

<sup>2</sup>Must include basic psychology.

|   |       |
|---|-------|
| Requirements in Speech Pathology and Audiology .....  | 54-60 |
| Basic courses: Speech Pathology and Audiology 231, 303, 312, 320 .....                                  | 16    |
| Speech Pathology courses: 201, 441, and two of the following: 442, 443, 444, 445 .....                  | 16    |
| Audiology courses: Speech Pathology and Audiology 360, 461, 471 .....                                   | 12    |
| Clinical procedures and practices: Speech Pathology and Audiology 449, 469, 452 .....                   | 6-12  |
| Optional courses: Speech Pathology and Audiology 401, 450, <sup>1</sup> 462, or approved elective ..... | 4     |
| Requirements in Related Areas .....   | 12    |
| Psychology 301, 305 .....   | 8     |
| Special Education 414 .....   | 4     |
| Requirements for Illinois Certification in Speech and Language Impaired .....                           | 25-33 |
| GSS 370 .....   | 4     |
| Counselor Education 305 .....   | 4     |
| Elementary Education 351 .....  | 8-16  |
| Foundations of Education 355 .....  | 4     |
| Health and Physical Education .....   | 5     |
| Approved Electives .....  | 41-27 |
| Students are encouraged to pursue a minor in a related field.   |       |

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<sup>1</sup>Required for Illinois Certification in Speech and Language Impaired.

## 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 three possible programs of study: (1) theater major (performance emphasis), (2) theater major (design and technical emphasis), (3) theater major (dance emphasis). 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, dramatic literature, 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,<sup>2</sup> School of Fine Arts and Communications**

### Performance Emphasis

General Studies Requirements (See Chapter 4. Waive GHA-8) .....

<sup>2</sup>Students pursuing the Bachelor of Arts degree must complete 12 hours of foreign language.

|  |    |
|--|----|
| Requirements for Major in Theater (performance emphasis) .....   |    |
| Theater 100a-8, 100q-12, 100v-4, 200q-8, 200m-2, 200q-2, 200u-8, 200v-4, 300a-8, 300b-4, 300m-4, 300r-4, 400r-4, 401a and b-8, 404a and b-8, 400a, p, r, u, or q-8 ..... | 96 |
| Electives .....  |    |

### Design and Technical Emphasis

|   |    |
|---|----|
| General Studies Requirements (See Chapter 4. Waive GHA-8) .....   |    |
| Requirements for Major in Theater (design and technical emphasis) .....   |    |
| Theater 100a-4, 100d-4, 100l-4, 100s-4, 200c-4, 200d-4, 200k-2, 200l-4, 200m-2, 200s-4, 300c-4, 300d-4, 300m-4, 300q-2, 300r-4, 302-4, 400w-4, 401a and b-8, Art 100a-3, 100b-3, 100c-3, 100d-3, 100e-3, Art 202q-3 ..... | 96 |
| Electives .....   |    |

### Dance Emphasis

|  |    |
|--|----|
| General Studies Requirements (See Chapter 4. Waive GHA-8) .....  |    |
| Requirements for Major in Theater (dance emphasis) .....   |    |
| Theater 100h-4, 100u-4, 200h-4, 200n-4, 200t-8, 300h-4, 300o-4, 300t-12, 300z-2, 302-4, 400e-4, 400h-12, 400o-4, 400t-12, 400z-2, 402-4, 403-4 ..... | 92 |
| Theater Electives .....  |    |
| Electives .....  |    |

### 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

Students desiring to qualify for teaching theater in the secondary schools are requested to take a 40-hour minor in theater or dance. This 40-hour minor must be planned in consultation, prior to advisement, with the Chairman of Theater and Dance. Students desiring to teach must also complete a 30-hour minor in a certifiable teaching area, preferably Speech Communications or English.

## COURSES

### ART AND DESIGN

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, 364, 365, 408, 460, 466.

Art History Courses: 225, 424, 447, 448, 449, 469, 481, 482, GHA 310, 311, 312, 315, 316, 317.

Studio Courses: 050, 051, 100, 202, 302, 305, 310, 312, 320, 331, 341, 358, 384, 386, 393, 401, 402, 410, 412, 417, 418, 420, 430, 441, 484.

**050—3 AVOCATIONAL PAINTING.** An exploration of painting and drawing media for the interested non-major. Emphasis upon individual development of understanding and appreciation of painting media through direct experience in the practice of painting. May be repeated. Three hours credit applicable to degree except in art and design and teacher education. Fee: \$7.98.



**51—3 AVOCATIONAL CERAMICS.** An introduction to ceramics for non-art majors. May be repeated up to 12 hours. Three hours credit applicable to degree except in art and design and teacher education. Fee: \$19.98.

**600—15 (3,3,3,3,3) BASIC STUDIO.** (a) Drawing I. Introduction to some of the various approaches to drawing, utilizing a variety of media. (b) Visual Organization I. Introduction to and exploration of art concepts and form with emphasis on color. Work in two dimensions. (c) Drawing II. Continuation of a with emphasis on development of ideas. (d) Visual Organization II. Continuation of b with emphasis on three dimensions. (e) Life Drawing. A study of the human figure, utilizing a variety of media and further development of ideas and composition as they relate to the human figure. Must be taken in sequence. Fee: a, b, c, d, e—\$7.98 per course.

**102—24 (3,3,3,3,3,3,3,3) INTERMEDIATE STUDIO.** (a) Sculpture. This course will provide a basic technical and conceptual approach to sculpture. Such processes as casting, carving, welding and construction can be explored. Stress is placed on personal expression and understanding the nature of sculptural development. (b) Printmaking. Introduction to fundamental printmaking techniques in relief and intaglio methods and multiple color printing. (c) Ceramics. Working with clay as an art medium. The student will also develop skills with glazing and firing, employing basic technique and technology while pursuing personal approaches and ideas. (d) Painting. Introduction to and exploration of oils as a medium of expression. (e) Drawing. Exploration of various approaches to drawing and composition including some figure work. (f) Design. Problem solving relative to two-dimensional visual design, exploring a variety of tools and media stressing the organization and structure of creative design. (g) Watercolor. Introduction to and exploration of tools and media and their application. (h) Weaving/Textiles. Introduction to beginning weaving, off-loom fibers and fabrics. Techniques include primitive weaving, wrapping, stitchery, quilting, tie-dye and bleach-out. Need not be taken in sequence. Prerequisite: sophomore standing or consent of instructor. Fee: a, b, c: \$19.98; d, e, f, g, h: \$7.98.

**1225—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 Renaissance to the present.

**289—3 PRACTICUM IN ART EDUCATION.** An introduction to the profession of art education in the elementary and secondary schools. Readings, discussions, observations and involvement with children in selected public/private schools. Clinical experience required. Prerequisite: third quarter freshman.

**300—9 (3,3,3) ART EDUCATION IN THE ELEMENTARY SCHOOLS.** For students preparing to teach in elementary schools. A study of objectives, theory, and practice of art activities for grades K-6; includes clinical experience in selected schools. (a) Exploration and experimentation of a variety of materials used in the teaching of art. (b) The development of motivational and instructional materials used in the teaching of art concepts. (c) Materials and methods for teaching art on the elementary level from the art specialist perspective. Prerequisite: junior standing or permission of instructor. Fee: \$7.98.

**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: \$19.98.

**304—1 SEMINAR I.** Preparation for professional career as an artist-teacher at the college or university level. An acquaintance with practical problems, including job analysis, job application, exhibiting, galleries, studio development and general problems confronting those who pursue college or university teaching careers. Prerequisite: upperclassman pursuing BFA degree or consent of instructor.

**305—12 (3,3,3,3) CERAMICS.** Continued study of the clay medium as a means of expression. A more advanced sequence of study incorporating additional areas of technical and aesthetic development. (a) Introduction to the potters wheel. (b) Intermediate handbuilding. (c) Intermediate wheel work. (d) Advanced work utilizing various handbuilding and wheel techniques. Should be taken in sequence. Prerequisite: 202c. Fee: \$19.98.

**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: \$7.98.

**312a,b,c—9 (3,3,3) ADVERTISING AND GRAPHIC DESIGN I, II, III.** (a) I: The basic tools of the advertising designer. Introduction to styles of type, lettering techniques, layout problems, and reproduction processes

for advertisements and illustrations in papers, magazines, posters, television, and pamphlets. Creative exercises in designing with type and illustrations. (b) II: Includes indication techniques for layouts in television and print media, incorporating illustration, photography, and typography. (c) III: Emphasizes the development of intermediate skills in preparing art for reproduction. Intern experiences are encouraged. Prerequisites: 9 credits 202, including 202-f, plus 302-a or equivalent. Fee: \$19.98.

**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: \$7.98.

**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. Fee: \$7.98.

**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. Fee: \$7.98.

**358—12 (3,3,3,3) PRINTMAKING.** (a) Relief. A study of the materials, tools, and methods used in relief printing. (b) Intaglio. Fundamental etching, engraving, collographic, and embossing processes. (c) Serigraphy. An investigation of the various stencil processes used in screen printing. (d) Lithography. A study of the basic theories and processes of stone printing. Each part may be repeated once. Prerequisite: 202—9, including 202b. Fee: \$19.98.

**364—3 CURRICULUM DEVELOPMENT IN ELEMENTARY AND SECONDARY SCHOOL ART EDUCATION.** The development of art programs emphasizing the scope and sequence of major goals, activities, and strategies important to the creative growth of children and youth. Prerequisite: junior standing or permission of instructor.

**365—3 ART EDUCATION IN THE SECONDARY SCHOOLS.** This is a course for education students specializing in art. A teaching methodology course dealing with projects designed to develop awareness of technical and aesthetic needs of youth. The course will cover reading, discussion, planning and teaching with an emphasis on studio and art appreciation. Includes clinical experience at a selected high school.

**377—9 (3,3,3) MULTIMEDIA.** (a) Qualities of materials; (b) process and systems; (c) four dimensional work. Should be taken in sequence. Prerequisite: 100—15 or consent of instructor. Fee: \$7.98.

**384—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: \$7.98.

**386—12 (3,3,3,3) JEWELRY AND DESIGN IN METALS.** The basic processes involved in forming and finishing art objects of metal as well as the lost wax process of casting metal via vacuum, centrifugal, gravity and steam techniques are investigated. Prerequisite: 202—9. Fee: \$7.98.

**393—12 (3,3,3,3) SCULPTURE.** Problems in modeling, carving, casting, and construction. Prerequisite: 202—9, including 202a. Fee: \$19.98.

**401—3 to 12 RESEARCH IN PAINTING.** Prerequisite: 310—12. Fee: \$7.98.

**402—3 to 12 RESEARCH IN SCULPTURE.** An exploration of current trends in sculpture-making, with an emphasis on the interaction of technique and idea. May be repeated for a total of 12 hours credit. Prerequisite: 393—12. Fee: \$19.98.

**405—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: 304.

**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. Fee: \$7.98.

**410—3 to 12 RESEARCH IN PRINTMAKING.** Prerequisite: 358—12. Fee: \$19.98.

**412—3 to 6 RESEARCH IN DESIGN.** May be repeated for a total of 12 hours credit. Prerequisites: 302-9 hours; 312-9 hours; 341-3 hours. Fee: \$19.98.

**417—3 to 6 MULTIMEDIA II.** Independent work in multi-media. May be repeated for total of 12 hours credit. Prerequisite: 377—6 or consent of instructor. Fee: \$7.98.

**418—3 METALSMITHING AND DESIGN.** Traditional methods of forging metal with forge, hammer, and anvil are explored with emphasis toward application of these skills to the creation of sculpture. Prerequisite: 386—9 or 393 or consent of instructor.

**420—3 to 6 RESEARCH IN CERAMICS.** Supervised research in specific areas of technical and aesthetic interest. May be repeated for a total of 12 hours credit. Prerequisite: 305—12 or permission of instructor. Fee: \$19.98.

**424—9 (3,3,3) BAROQUE AND ROCOCO ART.** A study of the visual arts throughout Europe during the seventeenth and eighteenth centuries. (a) Southern European Baroque. The requirements of the Catholic Counter-Reformation and its influence on painting, sculpture, and architecture in Italy and Spain. (b) Northern European Baroque. The spirit of the Baroque in Catholic Flanders, the Protestant Baroque of the Dutch Republic and French Classicism. (c) Eighteenth Century, Rococo, rationalist, romantic, and middle class styles during the eighteenth century, examined against the revolutionary shift from Baroque to modern society. May be taken independently. Prerequisite: 225—9 or consent of instructor.

**430—3 to 12 STUDIES IN ART.** Advanced work in area of specialization or 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: \$19.98.

**441—3 to 12 STUDIO IN DRAWING.** Open only to junior, senior, and graduate levels. Prerequisite: 12 hours of 300-level art. Fee: \$7.98.

**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, 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 uses in the

classroom. (a) Drawing and Painting for the Teacher. Work in the area drawing, watercolor, acrylic and oil paintings. Emphasis on the development of style and technique in these specialized areas. (b) Weaving for Teacher. Work in the areas of on and off loom as well as wrapping, stitch 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 work. (d) Sculpture for the Teacher. Work with additive and subtractive methods creating sculpture. Emphasis on the use of materials, techniques, and processes used in creating three dimensional and relief forms. Prerequisite: admittance to Teacher Education Program, 300a and/or 365, student teaching. Fee: \$7.98.

**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 America before the arrival of Columbus. (d) Post-Columbian Indian Art of the Americas. A summation of the decline of Mexican, Central, and South American cultures after European contact; the major focus is on the cultural 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 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 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 individual research in technical and conceptual problems in weaving and textiles. May be repeated to maximum of 12 hours. Prerequisites: 202h, 300h. Fee: \$7.98.

**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 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 magazine 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. Prerequisite: 103, consent of instructor.

**212—4 EDITING OF PHOTOGRAPHS AND ARTWORK.** Assignment of illustration of newspaper and magazine stories; evaluation of photographs and artwork; selection, editing, and production of such artwork; study of values of photography; practical exercises in editing and displaying photography. Laboratory hours required. Prerequisite: 103.

**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—4 COLOR PHOTOGRAPHY IN MASS COMMUNICATIONS.** (a) How to see and use color. Shooting color positives. Printing from positive and negative film. 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 histories 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—8 (4,4) MAGAZINE ARTICLE WRITING AND PRODUCTION.** The nature of magazine operation as it applies to the staff member and the free lance writer; studies of nonfiction magazine articles with submission by students of articles for publication; experience in magazine editing and production. Prerequisites: 103, 391, or consent of instructor.

**355—4 BUSINESS AND INDUSTRIAL PUBLICATIONS.** The role of trade, company and institutional newspapers and magazines; how they function, how they are staffed, and how they are produced; relationship of management and administration to editorial policies. Articles will be written by students for submission to these specialized publications. Prerequisites: 103 and permission of instructor.

**361—1 to 4 CONTEMPORARY READINGS IN JOURNALISM.** Reading of new books about mass communications and meeting with assigned instructor to discuss responses to them. Final paper required. May be repeated for 8 hours credit. Prerequisite: consent of instructor.

**362—1 to 4 INDEPENDENT STUDIES IN JOURNALISM.** Selecting an area of journalism for reading and research, presenting a final written report to a faculty member who approves the plan for study and agrees to be consultant to the student. May be repeated for total of 8 hours credit. Prerequisite: consent of instructor.

**370—4 PRINCIPLES OF ADVERTISING.** Advertising fundamentals in relation to modern business activities; economic and social aspects, research media, appeals, production, schedules.

**375—4 ADVERTISING COPYWRITING.** Processes and practices in the preparation of copy and layouts in the production of advertising for the print media. Prerequisite: 370 or Television-Radio 303.

**380—8 (4,4) MASS COMMUNICATIONS AND PUBLIC RELATIONS.** How reporting, writing, editing, photography, graphic arts, and broadcasting apply to public relations. (a) Study of principles and basic practices of public relations. (b) Public relations case studies.

**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—5 INTERNSHIP IN JOURNALISM.** Professional experience with local media in the various phases of journalism, under joint supervision of members of the journalism faculty and of the media. Prerequisites: journalism 400-level reporting, advertising or photography coursework, consent of director of journalism.

**435—4 SEMINAR IN PUBLICATIONS MANAGEMENT.** A study of advertising, business and circulation phases of newspaper and magazine production with the aid of guest speakers and instructors; observation of professional techniques and operations; assignments in solving management problems.

**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

**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.

**104—4 FOUNDATIONS OF MUSIC.** An overview of the principles and procedures applicable to the reading, writing, and perception of music including rhythm, pitch, notation, scales, keys, intervals, chord structures, symbols and performance terms, with reference to their application to musical form and design.

**105—12 (4,4,4) THEORY OF MUSIC.** Fundamentals of music through sight singing, dictation, written and keyboard harmony. Must be taken in sequence. Prerequisite: piano proficiency or concurrent enrollment in 101.

**111—2 (1,1) CLASS APPLIED STRINGS.** Practical training in basic principles of playing violin, viola, cello, and string bass. Introductory techniques and methods for teaching these instruments in elementary and secondary schools. 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. 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 percussion instruments of the band and orchestra. Introductory techniques and methods for teaching these instruments in elementary and secondary schools.

**115—3 (1,1,1) CLASS APPLIED VOICE.** Training in the basic principles of correct singing and diction. Introductory techniques and methods for teaching singing in the elementary and secondary schools. Must be taken in sequence.

**140, 240, 340, 440—2 or 4 PRIVATE APPLIED MUSIC.** Offered at five levels in the areas listed below. Credits given at 2 or 4 hours on each level. Consult with adviser for details of credit and requirements. May be repeated for three quarters at each level. Students with a concentration in Performance usually take 4 hours. Concentration in Music Education and all secondary concentrations usually take 2 hours. Prerequisite for 140: music concentration or secondary concentration or consent of music faculty. Prerequisite for higher levels: three quarters at the previous level on the same instrument or consent.

- |                |                                    |
|----------------|------------------------------------|
| a. Violin      | l. French Horn                     |
| b. Viola       | m. Trumpet                         |
| c. Cello       | n. Trombone                        |
| d. String Bass | o. Tuba                            |
| e. Flute       | p. Baritone                        |
| f. Oboe        | q. Voice                           |
| g. Clarinet    | r. Organ                           |
| h. Bassoon     | s. Harpsichord                     |
| i. Saxophone   | t. Harp                            |
| j. Percussion  | u. Classical Guitar                |
| k. Piano       | v. Primitive Rhythms in Percussion |

**141, 241, 341, 441—2 or 4 PRIVATE APPLIED MUSIC: JAZZ.** Individual instruction in performance of various jazz styles. Offered at four levels in the areas listed below. Credit is given at 2 or 4 hours on each level. Consult with adviser for details of credit and requirements. May be repeated for three quarters at each level. Students majoring in Performance usually take 4 hours; Music Education majors and Music Minors usually take 2 hours. 441 courses are not for graduate credit. Prerequisite for 141: admission as Music Major or minor and audition. Prerequisite for higher levels: three quarters at the previous level on the same instrument and consent of instructor.

- a. Jazz Piano
- b. Jazz Percussion
- c. Jazz Guitar
- d. Jazz Bass

**144—I UNIVERSITY CHORUS.** May be repeated.

**165—3 (1,1,1) PIANO PRACTICUM.** Keyboard harmony, sight reading, score reading, transposition, analysis at keyboard, improvisation, and harmonic examination of keyboard forms and techniques. May be repeated for credit up to 3 hours.

**200—3 FUNDAMENTALS OF MUSIC.** Rudiments of music for those with little or no musical background. Recommended as a course preliminary to 300 (not for music concentrations). May be taken concurrently with 101.

**201—3 (1,1,1) CLASS APPLIED PIANO.** Minimum instruction for passing piano proficiency examination which is required of all music concentrations. Must be taken in sequence.

**205—12 (4,4,4) THEORY OF MUSIC.** Advanced harmonic techniques, modulation, altered chords, chromatic harmony, counterpoint, and introduction to contemporary harmonic principles. Must be taken in sequence. Prerequisite: 105c.

**219a,b,c—9 (3,3,3) LYRIC DICTION.** Concentrated study of (a) French, (b) German, and (c) Italian lyric diction utilizing solo vocal literature; emphasis on the IPA, diacritical marks, vowels, consonants, semiconsonants, diphthongs, and syllabification; concomitant analytical study of formal style. May be taken in any sequence. Prerequisite: consent of instructor.

**222—1 UNIVERSITY BAND.** May be repeated.

**231a,b,c—3 (1,1,1) JAZZ KEYBOARD THEORY.** The examination and reproduction of jazz harmonic structures, utilizing the piano as the means of expression and standard jazz tunes as practice materials. Must be taken in sequence. Prerequisites: 101c and 105c.

**233—I JAZZ LAB I.** May be repeated. Prerequisite: consent of instructor.

**240—2 to 4 PRIVATE APPLIED MUSIC.** (See 140.)

**241—2 or 4 PRIVATE APPLIED MUSIC: JAZZ.** (See 141.)

**244—I COMMUNITY CHORAL SOCIETY.** May be repeated.

**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 leisurely, informal 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 small forms. Must be taken in sequence. Prerequisite: 205c or consent of instructor.

**318—6 (3,3) CONDUCTING.** (a) General fundamental conducting patterns, size of beats, use of each hand; conducting experience with laboratory groups both choral and instrumental; discussion and study of musical terminology. (b) Choral and Instrumental: Continued conducting experience through laboratory group; study of rehearsal techniques, balance, blend, and the relationship of parts to the total ensemble; evaluation and analysis of literature suitable for school groups of all levels of ability. Must be taken in sequence.

**322—1 SYMPHONIC BAND.** May be repeated. Prerequisite: by audition.

**326—9 (3,3,3) ANALYSIS.** Analysis of the important musical forms and styles. Must be taken in sequence. Prerequisite: 205c.

**330—6 (2,2,2) JAZZ IMPROVISATION.** Theory and techniques of jazz improvisation, with emphasis on functional harmony, melodic forms, special scales, tune studies, ear training, and development of style. Prerequisite: consent of instructor.

**331a,b,c—3 (1,1,1) JAZZ KEYBOARD THEORY.** The examination and reproduction of jazz harmonic structures, utilizing the piano as the means of expression and standard jazz tunes as practice materials. Must be taken in sequence. Prerequisite: 231c or consent of instructor.

**333—1 JAZZ COMBO.** May be repeated. Prerequisite: by audition.

**337—4 ANALYSIS OF JAZZ STYLES.** Comprehensive course for music majors incorporating the examination and analysis of the work of important jazz innovators. The course will involve historical research, transcription and analysis of the particular styles of the jazz innovators selected for study. Prerequisites: 205c and GHA 338.

**340—2 or 4 PRIVATE APPLIED MUSIC.** (See 140.)

**341—2 or 4 PRIVATE APPLIED MUSIC: JAZZ.** (See 141.)

**355—4 (1,1,1,1) CHAMBER MUSIC ENSEMBLES.** (a) Brass, (b) Woodwinds, (c) Strings, (d) Percussion. May be taken in any sequence. Any part may be repeated for 12 quarters. Prerequisite: consent of instructor.

**357—9 (3,3,3) MUSIC HISTORY AND LITERATURE.** Prerequisite: GHA 230.

**365—1 PIANO ENSEMBLE.** Piano four hands, two pianos; piano and voice; piano and other instruments. May be repeated for credit at discretion of instructor.

**377—1 UNIVERSITY SYMPHONY ORCHESTRA.** May be repeated. Prerequisite: by audition.

**401—3 PSYCHO-PHYSIOLOGY OF MUSIC.** The essential human capacities, their relationship to musical potentials and development, as well as with the acoustical foundations of the world of music.

**409—6 (2,2,2) JAZZ ARRANGING.** Designed to provide the student with the basic skills to arrange music for three jazz idioms: combo, big band, and studio orchestra. Areas of emphasis will include rhythm section continuity, orchestration, stylistic variety, the concept of tension and release, the examination of representative scores. A writing project will be required for each course section. Relevant provisions of copyright law will be presented. NOT FOR GRADUATE CREDIT. Prerequisite: 231c or consent of instructor.

**411—12 (3,3,3,3) MUSIC LITERATURE.** (a) Symphonic Literature. Development of the symphony and the symphonic poems to 1900. (b) Choral Literature. The literature of the larger vocal forms such as the cantata and oratorio to 1900. (c) Chamber Music Literature. Chamber music literature

from the Renaissance to the present. (d) Special Areas. Study of a particular period, composer, style, or medium.

**12-9 (3,3,3) COMPOSITION.** Original composition in the larger forms for various media. Must be taken in sequence. Prerequisite: 312c or consent.

**13-9 (3,3,3) PIANO LITERATURE.** A survey of the entire spectrum of repertoire for piano; methods of teaching the techniques of such literature. Taught in sequence. Prerequisite: 340k.

**20-1 MUSIC EDUCATION PRACTICUM.** A shop-laboratory course dealing with the selection, adjustments, maintenance, and repair of musical instruments.

**22-1 WIND ENSEMBLE.** May be repeated. Prerequisites: By audition, concurrent enrollment in 222 or 322.

**30-6 (3,3) ADVANCED IMPROVISATION.** Involves the examination and performance of a variety of jazz structures, with special emphasis on the affective nature of improvisation. Such concepts as real-time composition and the Leonard Meyer analytical approach are incorporated to improve the aesthetic quality of improvised solos. It is assumed that the principles of note-selection, time-feel, phrasing, and articulation as developed in 330 (Jazz Improvisation) have been successfully assimilated. NOT FOR GRADUATE CREDIT. Prerequisite: 330c or equivalent.

**33-1 CONCERT JAZZ BAND.** May be repeated. Prerequisite: By audition.

**36-3 JAZZ EDUCATION.** Jazz Education is designed to provide the student with the knowledge of basic skills necessary to teach jazz at elementary, secondary, and college levels, both group and individual instruction. Prerequisite: consent of instructor.

**40-2 or 4 PRIVATE APPLIED MUSIC.** (See 140.)

**41-2 or 4 PRIVATE APPLIED MUSIC: JAZZ.** (See 141.) NOT FOR GRADUATE CREDIT.

**42-9 (3,3,3) COUNTERPOINT.** (a) Sixteenth-century counterpoint; (b) eighteenth-century counterpoint; (c) larger contrapuntal forms with emphasis on fugue. Prerequisite: 205c.

**44-1 CONCERT CHORALE.** May be repeated. Prerequisite: By audition.

**45-3 TEACHING GENERAL CLASSROOM MUSIC.**

**45-2 to 6 ELEMENTARY MUSIC EDUCATION WORKSHOP.**

**46-6 (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.

**46-9 (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.

**46-3 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.

**47-1 CHAMBER ORCHESTRA.** May be repeated. Prerequisite: By audition.

**48-1 to 3 READINGS IN MUSIC THEORY.**

**48-1 to 3 READINGS IN MUSIC HISTORY AND LITERATURE.**

**48-1 to 3 READINGS IN MUSIC EDUCATION.**

**49-1 to 3 INDEPENDENT STUDY.** The capable student engages in original investigation with faculty specialists. May be repeated for credit. Prerequisite: consent of instructor.

## SPEECH COMMUNICATION

**200-4 PERSUASIVE SPEAKING.** Designed for students who desire increased proficiency in preparation and delivery of speeches.

**223-4 ADVANCED INTERPERSONAL COMMUNICATION.** An examination of personal growth potential inherent in everyday informal relationships. Focus on interpersonal needs, values, perceptions, expressions of identity, emotions, evaluation, power, etc. Graded on a pass/no credit basis. Prerequisite: GSK 123 or equivalent.

**300-4 COMMUNICATION IN INTERVIEWING AND COUNSELING.** Survey of the communicative aspects of interviewing and counseling, the causes of failure in such situations, and the roles that speech communication can play in re-establishing contact. Practice with critiqued video playbacks featured. For students entering fields of education, counseling, social work, personnel management, and law.

**301-4 PRINCIPLES OF SMALL GROUP COMMUNICATION.** Principles and methods of group discussion. Current problems used as focus for exploring group behavior.

**302-4 ORAL CONFRONTATION OF IDEAS.** Theory and practice in researching and debating problems of 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.

**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 function served, and on a comparison of the relative degrees of sophistication in communication behavior. Similarities to and differences from human communication. Prerequisite: consent of instructor.

**460-4 ORAL COMMUNICATION IN THE ELEMENTARY SCHOOLS (K-6).** Explores activities which may be incorporated into the elementary classroom to develop basic communication skills. Emphasis on the classroom as a verbal community. Recommended for elementary education concentrations and specialists.

**461-4 STRATEGIES FOR TEACHING SPEECH COMMUNICATION.** Philosophy of speech education and approaches for teaching speech in curricular and co-curricular settings. 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.

**489-1 to 12 INTERNSHIP IN SPEECH COMMUNICATION.** Study, observation, and professional experience with business and organizations in the various areas of communication under joint supervision of the organizational representative and the Speech Communication faculty sponsor. May be repeated to a maximum of twelve (12) hours, 4 hours of which may count toward a SpC major. Course is not available for graduate credit. Prerequisites: junior or senior, a major in Speech Communication, consent of faculty sponsor and acceptance of organizational representative.

## SPEECH PATHOLOGY AND AUDIOLOGY

**100-0 to 2 SPEECH CLINIC.** Designed for students with speech and hearing deviations who need individual help.

**201-4 HUMAN COMMUNICATION AND ITS DISORDERS.** Survey of the etiology, assessment, and management of communicative disorders with emphasis on the historical development of the field and 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.

**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 LANGUAGE DISORDERS OF CHILDREN.** Basic principles of diagnosis and therapy for developmental problems. Prerequisites: 312, 320.

**445-4 LANGUAGE DISORDERS OF ADULTS.** Basic principles of diagnosis and therapy for acquired language disorders. Prerequisites: 320.

**449-1 to 4 CLINICAL PRACTICE IN SPEECH PATHOLOGY AND AUDIOLOGY.** Supervised clinical practice. Fifteen clock hours of clinical activity for each hour of credit. May be repeated for a total of six quarter hours credit. Graded on Pass/No Credit basis only. Students must maintain a 3.5 grade point average in order to enroll. Prerequisite: consent of program director and clinical supervisor.

**452-4 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. NOT FOR GRADUATE CREDIT. Prerequisite: consent of instructor.

**461-4 BASIC AUDIOMETRY.** Principles and techniques of pure tone and speech reception testing. Prerequisite: 360.

**462-4 ADVANCED AUDIOMETRY.** In-depth study of special tests for site-of-lesion and non-organic problems. Prerequisite: 461.

**469-1 to 4 CLINICAL PRACTICE IN AUDIOLOGY.** Supervised clinical practice in diagnosis and therapy of hearing problems. Twenty clock hours of clinical activity for each hour of credit. May be repeated up to 6 hours credit. Graded on Pass/No Credit basis only. Prerequisite: consent of program director and clinical supervisor.

**471-4 AURAL REHABILITATION.** Basic principles in the management of the hearing impaired; auditory training, speech reading, speech conservation and counseling. Prerequisite: 360.

**498-4 NON-ORAL COMMUNICATION SYSTEMS.** A course designed to provide information about nonspeech approaches which can be used with children and adults to augment oral speech. The course includes manual systems, communication boards, electronic devices, and other communication aids/prostheses that utilize words, pictures and other symbols. Emphasis on evaluation, teaching strategies and adaptation of systems. Focus: neurologically impaired, autistic, retarded. Prerequisites: 441-4, 444-4, and 445-4 or consent of instructor.

## 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.

**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 commercial and voice-over announcing, on-camera host experiences, 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 in WSIE. Emphasis on style, format, and delivery. Recording news events and writing. Prerequisites: 201, Journalism 103.

**302b—4 RADIO NEWS.** The principles and philosophy of radio news. Instruction and exercises in writing news copy for radio, including broadcast in WSIE. Emphasis on style, format, and delivery. Recording news events and writing. Filming and editing news stories on assignment. Prerequisites: 301, 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.

**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—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. Prerequisite: 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—5 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. 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                            |
| 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. Jazz Dance Techniques (400 level only) <sup>1</sup> | s. Stagecraft                                   |
| 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)                  |   |

<sup>1</sup>May be repeated two additional times, up to a maximum of 12 hours credit. Prerequisites: advanced work in dance and consent of instructor.

**200—2 or 4 APPLIED THEATER.** (See 100.) Prerequisite: 100.

**224—4 COMMUNICATIVE READING.** Study and practice of techniques used in the oral presentation of various forms of literature: prose, poetry, and drama. Textual analysis, vocal and physical skills, and staging techniques as applied to performance situations.

**300—2 or 4 APPLIED THEATER.** (See 100.) Prerequisite: 200.

**302—4 DANCE DESIGN.** The nature of special design problems encountered in planning and executing stage environments for dance compositions. Set, costume, lighting, and make-up design. Project work includes theoretical, experimental, and practical work in the areas of classical and modern dance. Prerequisites: upperclass standing, consent of instructor.

**400—2 or 4 APPLIED THEATER.** (See 100.) Prerequisite: 300.

**401—12 (4,4,4) HISTORY OF THE THEATER.** A study of drama, performance, architecture, design, and cultural environment of (a) Primitive, Greek, Roman, Pre-Renaissance; (b) Renaissance, Neo-Classical; (c) Romantic and Modern.

**402—4 (2,2) HISTORY OF DANCE.** The development of dance from its beginnings to its present art form, (a) Beginnings through Renaissance. (b) Post-Renaissance to present. Need not be taken in sequence.

**403—4 METHODS AND MATERIALS OF DANCE EDUCATION.** Designed to acquaint the dance student with the principles and methodologies of dance instruction as related to the areas of ballet, modern, and jazz. Instructional work with the following populations: pre-school, elementary, junior and senior high, and adult. Emphasis on practical problem solution. Prerequisite: upperclass standing.

**404a,b—8 (4,4) FORMS OF DRAMATIC ACTION.** A two-quarter

sequence dealing with the principles of dramatic action as exemplified in selected plays. Emphasis on the functional relationships between theatrical process and dramatic form. Section A is concerned with tragedy; Section B with comedy. Prerequisites: advanced standing and consent of the instructor.

**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.

**410-4 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.

**415-4 DANCE ANTHROPOLOGY.** (See Anthropology 415.)

## SCHOOL OF FINE ARTS AND COMMUNICATIONS FACULTY

Daniel J. Anderson, M.F.A., Associate Professor of Art and Design

Robert O. Anderson, Ph.D., Associate Professor of Speech Communication

Stephen M. Brown, M.M., Assistant Professor of Fine Arts and Communications

Caroline M. Buck, M.A., Assistant Professor of Speech Pathology and Audiology

Ann L. Carey, Ph.D., Professor of Speech Pathology and Audiology

William D. Claudson, Ph.D., Professor of Music

Floyd W. Coleman, Ph.D., Associate Professor of Art and Design

Don F. Davis, M.A., Chairperson and Professor of Art and Design

Leila M. Daw, M.F.A., Associate Professor of Art and Design

Pamela S. Decoteau, Ph.D., Associate Professor of Art and Design

Paul A. Dresang, M.F.A., Assistant Professor of Art and Design

Dixie A. Engelman, M.S., Assistant Professor of Speech Pathology and Audiology

William F. Freund, M.S., Professor of Art and Design

Thomas D. Gipe, M.F.A., Associate Professor of Art and Design

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

John G. Gross, B.M., Assistant in Music

Johnetta A. Haley, M.M., Associate Professor of Music

Philip J. Hampton, M.F.A., Professor of Art and Design

Robert B. Hawkins, Ph.D., Professor of Speech Communication

Harry H. Hilberry, Ph.D., Professor of Art and Design

Debra A. Hoge, M.S., Instructor of Speech Pathology and Audiology

David C. Huntley, M.A.C.A., Professor of Art and Design

Warren A. Joseph, Ph.D., Professor of Music

Robert I. Katz, M.F.A., Assistant Professor of Art and Design

John D. Kendall, M.A., Professor of Music

George M. Killenberg, Ph.D., Associate 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

George H. Kurtzrock, Ph.D., Professor of Speech Pathology and Audiology

Marion J. Lampe, D.M.A., Professor of Music

James C. Landers, M.S., Lecturer of Mass Communication

Marcia A. LaReau, M.M., Instructor of Music

Clayton Lee, M.F.A., Assistant Professor of Art and Design

Malcolm Lieblich, Ph.D., Professor of Speech Pathology and Audiology

Donald Loucks, Ph.D., Associate 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

Robert R. Malone, M.F.A., Professor of Art and Design

Kevin E. McClearey, Ph.D., Assistant Professor of Speech Communication

Jean Meintrup, M.S., Instructor of Speech Pathology and Audiology

George K. Mellot, Ph.D., Professor of Music

Catherine E. Milovich, Emeritus Professor of Art and Design

Joseph A. Munshaw, Ph.D., Associate Professor of Speech Communication

Grant H. Newman, Ed.D., Professor of Music

Robert W. Oldani, Jr., Ph.D., Assistant Professor of Music

Linda W. Perry, M.M., Assistant in Music

Richard K. Perry, D.M.A., Professor of Music

Joseph E. Pival, M.M., Associate Professor of Music

John A. Regnell, Ph.D., Chairperson and Professor of Mass Communications

John A. Richardson, Ed.D., Professor of Art and Design

John R. Rider, Ph.D., Professor of Mass Communications

Dennis L. Ringerling, M.F.A., Associate Professor of Art and Design

Karen C. Rogers, M.F.A., Assistant Professor of Music

Keith R. St. Onge, Ph.D., Professor of Speech Pathology and Audiology

Dan R. Salden, Ph.D., Chairperson and Professor of Speech Communication

Robert W. Schieber, M.M.E., Associate Professor of Music

Janet A. Scott, M.M., Assistant Professor of Music

Jack G. Shaheen, Ph.D., Professor of Mass Communication

Kerry J. Shaul, M.F.A., Assistant Professor of Theater and Dance

David J. Sill, M.F.A., Assistant Professor of Theater and Dance

Ruth (Kerr) Slenczynska, Artist-in-Residence and Professor of Music

Joseph E. Smith, M.S., Associate Professor of Art and Design

Michael J. Smith, M.F.A., Professor of Art and Design

Mary Belle Smith, M.A., Emerita Assistant Professor of Theater and Dance

David B. Stamps, M.M., Assistant Professor of Music

Richard L. Stoppe, Ph.D., Associate Professor of Speech Communication

Luther Stripling, D.M.A., Associate Professor of Music

Charles O. Sweezy, M.F.A., Associate Professor of Theater and Dance

Audrey M. Tallant, M.F.A., Assistant Professor of Theater and Dance

William H. Tarwater, Ph.D., Chairperson and Professor of Music

Joyce S. Taylor, Ph.D., Chairperson and Professor of Speech Pathology and Audiology

Barbara Tirre, M.A., Associate Professor of Mass Communications

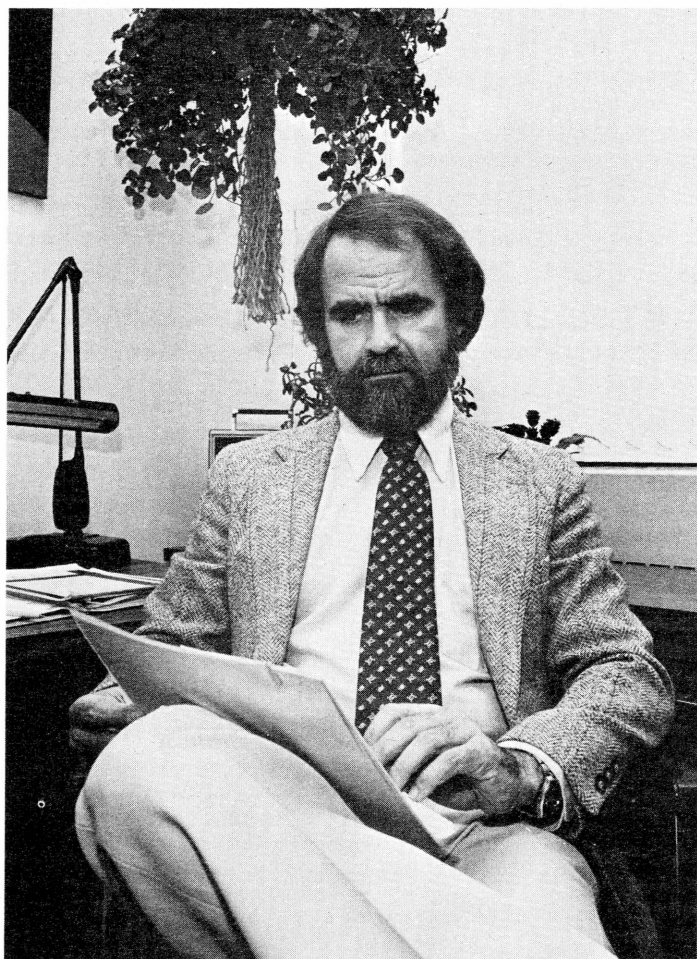
Sarah T. Turner, M.A., Associate Professor of Music

David B. Valley, Ph.D., Associate Professor of Speech Communication  
Leonard W. Van Camp, D.M.A., Professor of Music  
William W. Vilhauer, Ph.D., Chairperson and Professor of Theater and Dance  
William G. Ward, M.S., Professor of Mass Communications  
Edwin B. Warren, Ph.D., Emeritus Professor of Music  
Joseph A. Weber, M.S., Associate Professor of Art and Design  
Hollis L. White, Ph.D., Dean of School and Professor of Speech Communication  
Richard A. Wilber, M.A., Assistant Professor of Mass Communications

Ramon N. Williamson, Ed.D., Professor of Music  
William J. Willis, M.A., Assistant Professor of Mass Communications  
Alcine J. Wiltz, III, M.F.A., Artist-in-Residence and Professor of Theater and Dance  
Kamil Winter, State Exam, Prague, 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**

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, Black American Studies, Classical Studies, Peace Studies, and Women's Studies.

## **HUMANITIES HONORS PROGRAM,** Ronald Glossop, 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 milieus, 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.

## 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 4) .....   | 60  |
| Requirements for Major in American Studies .....   | 92  |
| Foreign Language (two years of same language) .....  | 24  |
| GHA 202 .....  | 4   |
| GSS 200, 201, 202 .....  | 12  |
| American Studies 490 .....   | 4   |
| English 309 .....  | 8   |
| Philosophy 385c, d, or e .....   | 4   |
| Philosophy 386 .....   | 4   |
| Approved courses in history, social sciences, literature,<br>philosophy, fine arts, and other areas. (At least two<br>courses must be in speech or fine arts.) ..... | 32  |
| Electives .....  | 40  |
|  | 192 |

## Minor in American Studies

A 28-hour multi-disciplinary minor in American Studies includes courses in American Studies, American Literature, American History, American Philosophy, and American Art or Jazz. One elective from 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.

Within the 27 hours required for this minor, a student is required to take two specific courses: English 340 and History 309. The remaining 19 elective hours selected from the following courses must include courses from three different departments, and at least three courses related to the black experience in America: General Studies: GHA 205, 338; Anthropology 311, 411; Art 469a; English 341, 342a, 342b, 342c; Government 342, 442; History 316a, b, c; Sociology 304, 402, 409.

For additional information regarding this minor or any of the courses, contact Rudolph Wilson, Building II, Room 1122. A description of the program and a schedule of courses offered each quarter are available at the office.

## Minor in Classical Studies

The minor in Classical Studies is a multidisciplinary program sponsored by the School of Humanities and supported by the Departments of English Language and Literature, Foreign Languages and Literature, and Philosophical Studies, as well as by the Department of Historical Studies in the School of Social Sciences and the Department of Art and Design in the School of Fine Arts and Communications.

Classical Studies contributes to cultural enrichment through the study of Latin, Greek, and the history, philosophy, literature, and art of the Greek and Roman civilizations.

Classical Studies contributes to the improvement of literacy levels by close attention to the grammatical and syntactical structure of Latin and/or Greek and by the careful analysis of texts.

Classical Studies contributes to expanding a general working vocabulary, as well as the special vocabulary of such fields as medicine, law, theology, and foreign languages derived from classical Latin and Greek.

## Requirements for the Minor

The requirements are 32 credit hours of courses designated Classical Studies. Of these, 12 hours are required either in Greek or in Latin. If a student chooses to include both languages in the minor, then 12 hours are required in one of the languages and 8 hours in the other. A student may be excused from the required courses through placement examinations, but generally not from the required number of hours in one or both languages. The placement examinations determine the level at which the student begins.

## COURSES

Greek 160—12 (4,4,4) Introduction to Greek, 250—12 (4,4,4) Intermediate Greek, 499—24 (4,4,4,4,4,4) Readings in Ancient Greek; Latin 162—12 (4,4,4) Introduction to Latin, 250—12 (4,4,4) Intermediate Latin, 499—24 (4,4,4,4,4,4) Readings in Latin; Foreign Languages and Literature 493—4 Comparative Latin and Greek Grammar; GHA 141—4 Building Vocabulary Through Latin and Greek Word Elements, 203—4 Literary Masterpieces of Antiquity, 209—4 Classical Mythology and Its Influence; History 100—4 Survey of Ancient Civilization, 306—12 (4,4,4) History of Rome, 338—8 (4,4) History of Greece, 408b—4 History of Ancient Near East: 1200 B.C. to 330 B.C.; Philosophy 385a—4 History of Western Philosophy: Ancient; Philosophy/Government 484a—4 Ancient and Medieval Political Theories; Art 225a—3 History of World Art: Ancient and Classical; 447—9 (3,3,3) Ancient Art.

Certain electives require advance approval due to their having variable content. These are the following: Humanities 301—3 to 4, 302—3 to 4, 303—3 to 4 Humanities Honors, 400—1 to 4 Symposium in the Humanities; Comparative Literature 210—12 (4,4,4) Literature and Society; Foreign Languages and Literature 390—2 to 6 Readings; History 300—2 to 8 Special Topics; Philosophy 490—2 to 12 Special Problems, 495—2 to 12 Independent Readings.

For further information contact: Director of Classical Studies, Box 43, Southern Illinois University, Edwardsville, Illinois 62026.

### Minor in 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 these 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, 474a, 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 100, Anthropology 305a, b, c, 452, Government 474b, 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 Reading in History. Philosophy 490, Special Problems in Philosophy. Philosophy 495, Independent Readings in Philosophy. Sociology 396, Readings in Sociology.

### Minor in 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 about 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 of courses designated as Women's Studies; not more than 12 hours may be taken on the General Studies level. A grade point of 3.50 is required in Women's Studies courses.

## COURSES

**321—4 SOCIAL PHILOSOPHIES OF THE WOMEN'S MOVEMENT.** (See Philosophy 321.)

**390—2 to 4 SELECTED TOPICS.** A course for juniors and seniors which treats particular issues or areas directly relevant to the experience of women. Varied content. May be repeated to a maximum of 8 hours.

**490—2 to 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.

**499—4 PRACTICUM IN WOMEN'S STUDIES.** A practical experience in some phase of women-oriented activity proposed by the student and a recognized organization. Involves at least 10 hours a week with the organization plus an academic component such as a paper. Examples: work with Rape Crisis Center, Oasis Shelter for Women, Women's Studies Program. Generally reserved for qualified students with at least 12 credit hours in Women's Studies (or equivalent related experience). Prerequisite: consent of Director of Women's Studies.



## 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 the student's profession is in teaching or whether it is in a non-academic field.

Students should attend during the first week of class in all classes taught by members of the English faculty. It is the student's responsibility to pick up the course syllabus, attend the class, and undergo any pertinent diagnostic testing during that week. Absences during that week may be considered unexcused absences when the instructor totals absences to see whether the student has violated the class attendance policy.

*Option I (General)*

The major consists of 48 hours in English.

|  |       |
|--|-------|
| General Studies Requirements (See Chapter 4) .....       | 60    |
| Requirements for Major in English <sup>1</sup> .....     | 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    |
| Foreign Language (one year of same language) .....       | 12    |
| Free Electives (under the General Studies Program) ..... | 12    |
| Minor .....  | 24-28 |
| Additional Electives .....                               | 36-32 |
|  | 192   |

*Option II (Preprofessional)*

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 English 301. Students are encouraged to take these courses early in their careers. Thus, English electives are reduced by 4 hours, and additional electives are reduced by 12 hours.

|  |    |
|--|----|
| General Studies Requirements (See Chapter 4) .....   | 60 |
| Requirements for Major in English <sup>1</sup> ..... | 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 |

<sup>1</sup>At 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 a degree.

|  |       |
|--|-------|
| Foreign Languages (two years of same language) .....     | 24    |
| Free Electives (under the General Studies Program) ..... | 12    |
| Minor .....  | 24-28 |
| Additional Electives .....                               | 24-20 |
|  | 192   |

**Bachelor of Science Degree, School of Education**

|   |     |
|---|-----|
| General Studies Requirements (See Chapter 4) .....                          | 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 <sup>2</sup> .....                        | 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 of Approved Supporting Courses <sup>3</sup> .....                     | 28  |
| Professional Education Courses (See Secondary Education requirements) ..... | 37  |
| Electives .....   | 12  |
|   | 197 |

<sup>2</sup>At least 24 of these 52 hours must be in courses in the 400-level. Students must maintain a C average in all English courses accepted toward a degree.

<sup>3</sup>Student, 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.

**Minors<sup>4</sup>**

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.

The minor in linguistics requires a minimum of 24 hours normally consisting of at least six of the following 300- and 400-level linguistics courses: English 370<sup>5</sup>, 371<sup>5</sup>, 400, 401, 403, 405a, b, 406, 407, 416<sup>5</sup>, 418. However, the student may elect to substitute a maximum of 8 hours from the following courses: English 404a, 404b; Greek 160a, 160b, 160c, 250a, 250b, 250c; Latin 162a, 162b, 162c, 250a, 250b, 250c. The student should select at least one course in each of the following: phonology (370<sup>5</sup>, 405a), syntax (371<sup>5</sup>, 400, 405b), historical change (403, 404a, b, 406, 407). A student who has a major in English may have a minor in linguistics.

<sup>4</sup>Students must maintain a C average in all English courses accepted toward a degree.

<sup>5</sup>English 370 was previously numbered 391b; 371 was 300; 416 was 391c.

**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 with a major in applied French, German, and Spanish languages and the Bachelor of Arts degree 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                              | Medical Services       |
| Social Work                      | Urban Studies          |
| Diplomacy                        | Geography              |
| Research                         | Anthropology           |
| Teaching                         | International Business |
| Businesses Concerned with Travel | Government Agencies    |
| Hotel and Restaurant Management  | Scientific Linguistics |
| Technical Interpreters           | Journalism             |
| Transportation Companies         | Library Work           |
| Technical Translators            | Criminology            |
| Welfare Agencies                 | 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*

|   |       |
|---|-------|
| General Studies Requirements (See Chapter 4. Waive GHA-8) .....   | 60    |
| Requirements for Major in a Foreign Language .....  | 48-50 |
| 203; 301; 302 or 304; 303 or 305; and a sequence of<br>three 4-hour literature surveys in the same language ..... | 28    |
| Electives beyond 203 in a foreign language<br>(and culture) .....   | 20-22 |
| Minor Requirements .....  | 28    |
| 203; 301; 302 or 304; 303 or 305; and a sequence of<br>three 4-hour literature surveys in the same language ..... | 28    |
| Electives .....   | 56-54 |
|   | 192   |

#### *Foreign Literature Option*

|   |       |
|---|-------|
| General Studies Requirements (See Chapter 4. Waive GHA-8) .....   | 60    |
| Requirements for Major in a Foreign Literature .....  | 48-50 |
| 203; 301; 302 or 304; 303 or 305; and a sequence of<br>three 4-hour literature surveys in the same language ..... | 28    |
| Electives beyond 203 in a foreign literature<br>(and culture) .....   | 20-22 |
| Minor Requirements .....  | 28    |
| 203; 301; 302 or 304; 303 or 305; and a sequence of<br>three 4-hour literature surveys in the same language ..... | 28    |
| Electives .....   | 56-54 |
|   | 192   |

For both majors and minors in the Department of Foreign Languages and Literature, credit is allowed for only those courses in which grades of C or better are earned.

### 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 course 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) a language.

#### Minor in Comparative Literature

The minor in comparative literature is 28 hours. Included are two courses chosen from Comparative Literature 410a-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 doctoral 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.

## PHILOSOPHY MAJOR

A major in philosophy consists of 52 hours (including foreign language).

### Bachelor of Arts Degree, School of Humanities

|   |       |
|---|-------|
| General Studies Requirements (Waive 8 hours in GHA) ..... | 60    |
| Requirements for Concentration in Philosophy .....        | 52    |
| Foreign Language (on intermediate level) .....            | 8     |
| Philosophy 490 .....                                      | 4     |
| Three courses in Area I with no historical overlap* ..... | 12    |
| One course in each of the other Areas .....               | 16    |
| Three more philosophy electives .....                     | 12    |
| Secondary Concentration .....                             | 30-40 |
| Electives .....   | 40-50 |

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Recommendations: It is strongly recommended that all students elect Philosophy 200 early in their career (the hours for this course will be counted toward the major if it is taken within the first 12 credit hours after the student has declared a philosophy major). Also, if a student is seriously contemplating graduate work in philosophy, it is recommended that (s)he satisfy the language requirements in either French or German and that (s)he take Philosophy 230, 376, 385a, and 385c.

## GENERAL AREAS WITHIN PHILOSOPHY

I. History of Western Philosophy. 385a, b, c, d, e—History of Western Philosophy sequence. 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—Metaphysics. 301—Philosophy of Religion. 355—Philosophy of Education. 391—Theory of Knowledge.

III. Logic and Methodology. 230—Deductive Logic. 306—Phenomenology. 307—Philosophy of Science. 308—Twentieth Century Analytic Philosophy. 430—Symbolic Logic.

IV. Theory of Value. 310—Philosophy of Law. 311—Engineering, Ethics, and Professionalism. 312—Ethics in the Medical Community. 320—Philosophical Conceptions of Woman. 321—Social Philosophies of the Women's Movement. 342—Social and Political Philosophy. 345—Aesthetics of Film. 360—Philosophy of Art. 376—Ethical Systems. 412—Contemporary Issues in Bio-Ethics. 470—Topics in Business Ethics.

V. Philosophy and World Culture. 302—World Religions. 380—Chinese Philosophy. 386—American Philosophy. 402—Hindu Thought. 403—Buddhist Thought.

### Minor 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 these 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.

### 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.

**201—4 INTERMEDIATE COMPOSITION.** A course in English composition for students in all disciplines who have completed GSK 102 or their equivalents. Development of expository themes, including analysis of audience, choice of rhetorical strategies, organization of materials. Emphasizes clear and direct writing and logical organization of information without grammatical and mechanical error. Prerequisites: GSK 101 and 102 or equivalent.

**301—4 BASIC LITERARY CRITICISM AND SCHOLARSHIP.** An introduction to critical terminology, practice in criticism, discussion of literary theories. Practical application of elementary research methods.

**302—12 (4,4,4) SURVEY OF ENGLISH LITERATURE.** (a) Beginnings to 1660, excluding Milton, (b) 1660-1830, including Milton, (c) 1830 to present. May be taken in any sequence, but chronological sequence is recommended.

**309—8 (4,4) SURVEY OF AMERICAN LITERATURE.** (a) to 1860, (b) since 1860. May be taken in either sequence.

**325—4 TECHNICAL WRITING.** Designed for students in engineering and the sciences. Principles of technical writing with emphasis on organization, style, grammar, and usage. Practice in writing technical reports, instruction, outlines, and summaries. Special instruction in library procedure and writing the annotated library research paper. Prerequisites: GSK 101, 102.

**340—4 LITERATURE OF THE THIRD WORLD.** Reading and discussion of the literary works of selected writers from Third World countries from antiquity to the present. An analysis of the social, political, historical, philosophical, and literary problems.

**341—4 THE BLACK WOMAN IN AMERICAN LITERATURE.** A study of poems, novels, short stories, essays, dramas, biographies and appropriate historical documents, portraying roles of black women in America.

**342—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.

**369—4 GRAMMAR FOR TEACHERS.** For those who will teach grammar in elementary, middle, or secondary schools. The grammar taught in the course will cover the content of texts which are currently used in the schools. The uses of grammatical analysis in teaching formal spoken and written usage will be demonstrated and practiced. Projects with actual school texts will be included in the course requirements. Prerequisite: junior standing or consent of instructor.

**370—4 FUNDAMENTALS OF THE ENGLISH LANGUAGE: SOUND PATTERNS AND WORD CONSTRUCTION.** The production of English sounds and word formations. Dialectal variations. The relationship of sounds to the spelling system. Recommended for language,



speech, reading, education concentrations, and all foreign students. Prerequisite: junior standing or consent of instructor.

**371-4 PRINCIPLES OF ENGLISH SYNTAX.** A study of word relationships in English. Recommended for language, speech, reading, and education concentrations as well as English concentrations and linguistics minors. Prerequisites: GSK 101 and 102; 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.** (See Anthropology 401.) A survey of linguistic concepts and theories. Recommended for anthropology students, linguistic students, and for those preparing to teach English. Prerequisite: junior standing.

**402-4 LINGUISTICS AND LITERATURE.** An examination of the ways in which linguistic analysis can illuminate a literary text. Open to interested students in any discipline. Prerequisite: junior standing or consent of instructor.

**403-4 THE HISTORY OF THE ENGLISH LANGUAGE.** A survey of the development of the language from Indo-European to modern English with special emphasis on Middle and Early Modern English changes. Prerequisite: junior standing or consent of instructor.

**404-8 (4,4) MIDDLE ENGLISH LITERATURE.** (a) Middle English literature excluding Chaucer; (b) Chaucer: *Canterbury Tales*. May be taken separately. Prerequisite: junior standing.

**405-4 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. 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.

**412-4 ENGLISH NONDRAMATIC LITERATURE.** (c) Poetry and Prose of the Augustan Age: Dryden through Pope. Prerequisite: junior standing.

**413-4 SPENSER.** Reading and analysis of *The Faerie Queene*, *Amoretti*, and other major poems. Prerequisite: junior standing.

**416-4 LINGUISTICS AND OTHER DISCIPLINES.** Applications of linguistics to dialect, child 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. Prerequisites: GSK 101 and 102; junior standing 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.

**421-12 (4,4,4) ENGLISH POETRY.** (a) Romantic poets: Blake through Keats; (b) Victorian poets: Tennyson, Browning, Arnold, and the Pre-Raphaelites; (c) modern British poets. May be taken separately.

**431-8 (4,4) MAJOR AMERICAN WRITERS.** Significant writers of short fiction and nonfictional prose from 1800 to the present. (a) 1800-1865, (b) 1865-1918. 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.

**460-4 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. 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.

**468-4 AMERICAN DRAMA.** (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.

**475-4 MODERN ADOLESCENT LITERATURE.** Extensive and critical reading of modern literature (primarily fiction) that young people between the ages of 11 and 17 are reading, particularly that literature which they are reading out of choice and not from compulsion. Secondly, an attempt to assess this age group as an audience so that, finally, practical teaching approaches can be created to enhance the reading enjoyment of this group. Prerequisite: junior standing.

**485-4 PROBLEMS IN THE TEACHING OF ENGLISH.** Aimed at methods, materials, tests, and programs of English instruction in the high school, including supervised practicum integrated with the other aspects of the course. A tutorial course normally taken concurrently with Secondary Education 401a, b, or prior to Secondary Education 352. Prerequisite: consent of instructor.

**488-8 (4,4) TEACHING STANDARD ENGLISH AS A SECOND LANGUAGE.** (a) Classroom techniques. (b) Laboratory methods. 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. Prerequisites: GSK 101-102; junior standing or consent of instructor.

**495-4 HISTORY OF CRITICAL THEORY.** Historical survey of major critical theories from Plato to the present, including practice in writing criticism. Prerequisite: junior standing or consent of instructor.

**498-4 TUTORIAL IN CREATIVE WRITING.** 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

**190—2 to 6 READINGS.** Readings in selected works of representative writers in the student's special field of interest. Offered in French, Spanish, German, Russian, Italian, Latin, and Greek. Primarily for students with no foreign language concentration, but may be taken for credit in foreign language concentration with consent of faculty chairperson. Prerequisites: 203, consent of department chairperson.

**301—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.

**386—4 MATERIALS AND METHODS FOR TEACHING FOREIGN LANGUAGES.** Application of language learning principles to classroom procedures at different levels. Theory and practice of the audio-lingual approach, the language lab, applied linguistics. Required for all majors intending to teach foreign languages. Prerequisite: one quarter of any 300-level course, or consent of department chairperson.

**491—2 to 8 CULTURAL AND LANGUAGE WORKSHOP.** Fills the need for practical studies in areas such as comparative or contrastive linguistics, advanced methodology and techniques in foreign languages, preparation for career oriented programs, in-depth study of foreign cultures, travel-study abroad, applied language study, and supervised projects in foreign studies. Prerequisite: advanced standing or graduate standing.

## FRENCH

**101—4 ELEMENTARY FRENCH.** Open to students who have had no previous work in French.

**102—4 ELEMENTARY FRENCH.** Continuation of 101. Prerequisite: 101.

**103—4 ELEMENTARY FRENCH.** Continuation of 102. Prerequisite: 102.

**201—4 INTERMEDIATE FRENCH.** Development of comprehension of the spoken language and oral expression, reading of modern prose selections, simple composition. Prerequisite: 103 or two years of high school or consent of department chairman.

**202—4 INTERMEDIATE FRENCH.** Continuation of 201. Prerequisite: 201.

**203—4 INTERMEDIATE FRENCH.** Continuation of 202. Prerequisite: 202.

**220—2 INTERMEDIATE FRENCH CONVERSATION.** (a) Practice in conversation. Prerequisite: 103 or equivalent.

**301—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 chairperson.

**302—4 ORAL COMMUNICATION.** Oral work of a practical nature for advanced students. Prerequisite: 203 or consent of department chairman.

**303—4 ADVANCED FRENCH COMPOSITION.** Practical composition for advanced students. Prerequisite: 203 or consent of department chairperson.

**304—4 ORAL INTERPRETATION.** Contrastive analysis of English and French applied to oral interpretation. Prerequisite: 203 or consent of department chairperson.

**305—4 WRITTEN INTERPRETATION.** Contrastive analysis applied to written interpretation. Prerequisite: 203 or consent of department chairperson.

**306—4 CONTEMPORARY PROFESSIONAL READINGS.** Selections of publications related to the professions and concerns in contemporary France. Prerequisite: 203 or consent of department chairperson.

**307—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: 203 or consent of department chairperson.

**308—4 FRENCH PHONETICS.** Articulatory phonetics as a means to form native French pronunciation habits with emphasis upon the difficulties encountered by speakers of American English. Prerequisite: 203.

**311—4 CONTEMPORARY FRANCE.** Study of significant aspects of French culture. Prerequisite: 250c or consent of department chairperson.

**351—4 SURVEY OF FRENCH LITERATURE (17TH CENTURY).** Corneille, Racine, Moliere, Pascal and other writers of the 17th century with reference to the political and social environment of the period. Prerequisite: 203 or consent of department chairman.

**352—4 SURVEY OF FRENCH LITERATURE (18TH CENTURY).** Montesquieu, Voltaire, Diderot, Rousseau, and others, with references to the social, political, and philosophic environment of the 18th Century. Prerequisite: 203 or consent of department chairperson.

**353—4 SURVEY OF FRENCH LITERATURE (EARLY 19TH CENTURY).** Representative writers of the early 19th century: Chateaubriand, Hugo, Balzac, Stendhal, and others. Prerequisite: 203 or consent of department chairperson.

**451—4 FRENCH LITERATURE (LATE 19TH CENTURY).** From realism to symbolism: Flaubert, Zola, Baudelaire, Verlaine, and others. NOT FOR GRADUATE CREDIT. Prerequisite: 203 or consent of department chairman.

**452—4 MODERN FRENCH LITERATURE (1900 - 1940).** Representative writers from the "fin de siecle" to World War II with special emphasis upon the novel: Proust, Mauriac, Gide, and others. NOT FOR GRADUATE CREDIT. Prerequisite: 203 or consent of department chairperson.

**453—4 MODERN FRENCH LITERATURE (1940 TO THE PRESENT).** The post war works of Camus, Sartre, the anti-novel, Genet, Beckett, Ionesco, and others. NOT FOR GRADUATE CREDIT. Prerequisite: 203 or consent of department chairperson.

**454—2 SEMINAR.** Integration of the specialized major courses and the development of French drama including analysis of major and typical works, practice in direction and interpretation with emphasis on oral expression.

**455—2 SEMINAR.** See 454.

**456—2 SEMINAR.** See 454.

**457—4 FRENCH DRAMA IN THEORY AND PRACTICE.** The history and development of French drama including analysis of major and typical works, practice in direction and interpretation with emphasis on oral expression. Prerequisite: 203 or consent of department chairperson.

**458—4 FRENCH DRAMA IN THEORY AND PRACTICE.** See 457. Prerequisite: 457.

**499—2 to 9 READINGS IN FRENCH.** Readings in selected areas of French language, literature, culture, and civilization. Individual work or small groups under direct supervision of one or more members of the foreign language faculty. Prerequisites: 203, consent of department chairperson.

## GERMAN

**101—4 ELEMENTARY GERMAN.** Open to students who have had no previous work in German.

**102—4 ELEMENTARY GERMAN.** Continuation of 101. Prerequisite: 101.

**103—4 ELEMENTARY GERMAN.** Continuation of 102. Prerequisite: 102.

**201—4 INTERMEDIATE GERMAN.** Development of comprehension of the spoken language and oral expression, reading or modern prose selections, simple composition. Prerequisite: 103 or two years of high school German or consent of department chairperson.

**202—4 INTERMEDIATE GERMAN.** Continuation of 201. Prerequisite: 201.

**203—4 INTERMEDIATE GERMAN.** Continuation of 202. Prerequisite: 202.

**301—4 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 chairperson.

**302—4 ORAL COMMUNICATION.** Oral work of a practical nature for advanced students. Prerequisite: 203 or consent of department chairperson.

**303—4 ADVANCED GERMAN COMPOSITION.** Practical composition for advanced students. Prerequisite: 203 or consent of department chairperson.

**304—4 ORAL INTERPRETATION.** Contrastive analysis of English and German applied to oral interpretation. Prerequisite: 203 or consent of department chairperson.

**305—4 WRITTEN INTERPRETATION.** Contrastive analysis applied to written interpretation. Prerequisite: 203 or consent of department chairperson.

**306—4 CONTEMPORARY PROFESSIONAL READINGS.** Selections of publications related to the professions and concerns in contemporary Germany. Prerequisite: 203 or consent of department chairperson.

**307—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: 203 or consent of department chairperson.

**311—8 (4,4) CONTEMPORARY GERMANY.** Study of significant aspects of German culture. Prerequisite: 203 or consent of department chairperson.

**351—4 SURVEY OF GERMAN LITERATURE (MIDDLE AGES THROUGH STORM AND STRESS).** Survey of German literature from the Middle Ages through the period of Storm and Stress. Prerequisite: 203 or consent of department chairman.

**352—4 SURVEY OF GERMAN LITERATURE (CLASSICISM THROUGH REALISM).** Survey of German literature from the period of Classicism through the period of Realism. Prerequisite: 203 or consent of department chairperson.

**353—4 SURVEY OF GERMAN LITERATURE (NATURALISM TO THE PRESENT).** Survey of German literature from the period of Naturalism to the present. Prerequisite: 203 or consent of department chairperson.

**411—4 GERMAN CIVILIZATION.** Intensive study of the German speaking areas of the world with emphasis on the anthropological and sociological aspects of their respective cultures (Austrian, German, Swiss, "Reichsdeutsch," etc.) lectures, reports. Prerequisite: senior standing in German language.

**451—4 LITERATURE AND HISTORY OF THE GERMAN THEATER.** Introduction to the history and literature of the German stage, from the Middle Ages to modern times, involving dramatic literature as well as the development of the stage itself in terms of public and artistic functions, techniques and influence, etc. NOT FOR GRADUATE CREDIT. Prerequisite: 203 or consent of department chairperson.

**452—4 FAUST.** Analysis of both parts of Goethe's masterpiece, its background, meaning, and impact on world literature together with a general survey of the life and times of the author. Prerequisite: 203 or consent of department chairperson.

**453a—4 STUDIES IN GERMAN LITERATURE (MIDDLE AGES THROUGH STORM AND STRESS).** Study of German literary masterpieces selected from one or more of the periods from the Middle Ages to the Storm and Stress. NOT FOR GRADUATE CREDIT. Prerequisite: 203 or consent of department chairperson.

**453b—4 STUDIES IN GERMAN LITERATURE (CLASSICISM THROUGH REALISM).** Study of German literary masterpieces selected from one or more of the periods from Classicism to Realism. NOT FOR GRADUATE CREDIT. Prerequisite: 203 or consent of department chairperson.

**453c—4 STUDIES IN GERMAN LITERATURE (NATURALISM TO THE PRESENT).** Study of German literary masterpieces selected from one or more of the periods from Naturalism to the present. NOT FOR GRADUATE CREDIT. Prerequisite: 203 or consent of department chairperson.

**454—2 SEMINAR.** Integration of the specialized major courses and the development of a comprehensive view of the major field in terms of its relationship to the growth of Western civilization.

**455—2 SEMINAR.** See 454.

**456—2 SEMINAR.** See 454.

**457—4 STUDIES IN GERMAN LITERATURE (TOPIC OPEN).** Study of German literary masterpieces selected from one or more literary periods. NOT FOR GRADUATE CREDIT. Prerequisite: 203 or consent of department chairperson.

**499—2 to 9 READINGS IN GERMAN.** Readings in selected areas of German language, literature, culture, and civilization. Individual work or small groups under direct supervision of one or more members of the foreign language faculty. Prerequisites: 203, consent of department chairperson.

## GREEK

**101—4 INTRODUCTION TO GREEK.** Open to students with previous work in Greek.

**102—4 INTRODUCTION TO GREEK.** Continuation of 101. Prerequisite: 101.

**103—4 INTRODUCTION TO GREEK.** Continuation of 102. Prerequisite: 102.

**201—4 INTERMEDIATE GREEK.** Development of reading facility. Reading of selected masterpieces in history, poetry, and philosophy. Prerequisite: 103 or equivalent.

**202—4 INTERMEDIATE GREEK.** See 201. Prerequisite: 103 or equivalent.

**203—4 INTERMEDIATE GREEK.** See 202. Prerequisite: 103 or equivalent.

**250—12 (4,4,4) INTERMEDIATE GREEK.** Development of reading facility. Reading of selected masterpieces in history, poetry, and philosophy. May be taken out of sequence. Prerequisite: 103 or equivalent.

**499—24 (4,4,4,4,4,4) READINGS IN ANCIENT GREEK.** Selected readings designed to develop basic lexical and structural competence. (b) Continuation of a. (c) Study of a selected masterpiece of Greek literature. (d) Masterpieces in history. (e) Poetry. (f) Philosophy. A, b, c must be taken in sequence and are prerequisites to d, e, or f which may be taken out of sequence with consent of instructor. Individual segments may not be repeated for credit. Prerequisite for a, b, c: one year of college study of another language, or the equivalent, or consent of instructor.

## ITALIAN

**101—4 ELEMENTARY ITALIAN.** Open to students who have had previous work in Italian.

**102—4 ELEMENTARY ITALIAN.** Continuation of 101. Prerequisite: 101.

**103—4 ELEMENTARY ITALIAN.** Continuation of 102. Prerequisite: 102.

**201—4 INTERMEDIATE ITALIAN.** Development of comprehension of the spoken language and oral expression, reading of modern prose selections, simple composition. Prerequisite: 103 or two years of high school Italian or consent of department chairperson.

**202—4 INTERMEDIATE ITALIAN.** Continuation of 201. Prerequisite: 201.

**203—4 INTERMEDIATE ITALIAN.** Continuation of 202. Prerequisite: 202.

**311—4 ITALIAN CULTURE AND CIVILIZATION.** Study of significant aspects of Italian culture in a historical perspective. Designed to improve intercultural understanding and to continue the development of language skills. Prerequisite: 203 or consent of department chairperson.

**499—2 to 9 READINGS IN ITALIAN.** Readings in selected areas of Italian language, literature, culture, and civilization. Individual work or small groups under direct supervision of one or more members of the foreign language faculty. Prerequisites: 203, consent of department chairperson.

## LATIN

**101—4 INTRODUCTION TO LATIN.** Open to students with previous work in Latin.

**102—4 INTRODUCTION TO LATIN.** Continuation of 101. Prerequisite: 101.

**103—4 INTRODUCTION TO LATIN.** Continuation of 102. Prerequisite: 102.

**201—4 INTERMEDIATE LATIN.** Basic principles of the Latin language taught through reading selections from classical, medieval, and renaissance Latin. Prerequisite: 103 or equivalent.



**202—4 INTERMEDIATE LATIN.** Prerequisite: 103 or equivalent.

**203—4 INTERMEDIATE LATIN.** Prerequisite: 103 or equivalent.

**99—24 (4,4,4,4,4,4) READINGS IN LATIN.** (a) Basic principles of the Latin language taught through reading selections from classical, medieval, and renaissance Latin. (b) Continuation of a. (c) Continuation of b. (d), (e), (f) The second-year level. Content varies with instructor. A,b,c must be taken in sequence and are prerequisites to d,e, or f which may be taken out of sequence with consent of instructor. Individual segments may not be repeated for credit. Prerequisite for a,b,c: one year college study of another language, or the equivalent, or consent of instructor.

## RUSSIAN

**101—4 ELEMENTARY RUSSIAN.** No previous knowledge of Russian required.

**102—4 ELEMENTARY RUSSIAN.** Continuation of 101. Prerequisite: 101.

**103—4 ELEMENTARY RUSSIAN.** Continuation of 102. Prerequisite: 102.

**201—4 INTERMEDIATE RUSSIAN.** Development of comprehension of the spoken language and oral expression, reading of modern prose selections, simple composition. Prerequisite: 103 or two years of high school Russian or consent of department chairperson.

**202—4 INTERMEDIATE RUSSIAN.** Continuation of 201. Prerequisite: 201.

**203—4 INTERMEDIATE RUSSIAN.** Continuation of 202. Prerequisite: 202.

**499—2 to 9 READINGS IN RUSSIAN.** Readings in selected areas of Russian language, literature, culture, and civilization. Individual work or small groups under direct supervision of one or more members of the foreign language faculty. Prerequisites: 203, consent of department chairperson.

## SPANISH

**101—4 ELEMENTARY SPANISH.** Open to students who have had no previous work in Spanish.

**102—4 ELEMENTARY SPANISH.** Continuation of 101. Prerequisite: 101.

**103—4 ELEMENTARY SPANISH.** Continuation of 102. Prerequisite: 102.

**201—4 INTERMEDIATE SPANISH.** Development of the spoken language and oral expression, reading of modern prose selections, simple composition. Prerequisite: 103 or two years of high school Spanish or consent of department chairperson.

**202—4 INTERMEDIATE SPANISH.** Continuation of 201. Prerequisite: 201.

**203—4 INTERMEDIATE SPANISH.** Continuation of 202. Prerequisite: 202.

**301—4 ADVANCED SPANISH GRAMMAR 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 chairperson.

**302—4 ORAL COMMUNICATION.** Oral work of a practical nature for advanced students. Prerequisite: 203 or consent of department chairperson.

**303—4 ADVANCED SPANISH COMPOSITION.** Practical composition for advanced students. Prerequisite: 203 or consent of department chairperson.

**304—4 ORAL INTERPRETATION.** Contrastive analysis of English and Spanish applied to oral interpretation. Prerequisite: 203 or consent of department chairperson.

**305—4 WRITTEN INTERPRETATION.** Contrastive analysis applied to written interpretation. Prerequisite: 203 or consent of department chairperson.

**306—4 CONTEMPORARY PROFESSIONAL READINGS.** Selections of publications related to the professions and concerns in contemporary Spain. Prerequisite: 203 or consent of department chairperson.

**307—4 BUSINESS SPANISH.** Rapid grammar review, daily writing practice in all types of commercial communications, and guided writing of the different forms of business documents in Spanish. Prerequisite: 203 or consent of department chairperson.

**308—4 SPANISH PHONETICS.** Analysis of the sounds of Spanish and their manner of production; intonation; levels of speech; oral practice. Prerequisite: 203 or consent of department chairperson.

**311—4 CONTEMPORARY SPAIN.** Study of significant aspects of Spanish culture. Prerequisite: 203 or consent of department chairperson.

**312—4 CONTEMPORARY SPANISH AMERICA.** Analysis of significant aspects of Spanish-American culture designed to improve intercultural understanding and to develop language skills. Oral discussions, readings, oral and written reports. Prerequisite: 203 or consent of department chairperson.

**351—4 SURVEY OF SPANISH LITERATURE (MIDDLE AGES AND RENAISSANCE).** Survey of Spanish literature from the 12th to the 16th Century; the epic, *El Cantar del Cid*, ballads, lyric poetry, chronicles and other prose works. Prerequisite: 203 or consent of department chairperson.

**352—4 SURVEY OF SPANISH LITERATURE (GOLDEN AGE AND NEOCLASSICISM).** Survey of Spanish literature of the 16th through 18th Centuries: Cervantes, Tirso de Molina, Lope de Vega, Calderon de la Barca, Quevedo, Gracian, Iriarte, Samaniego and others. Prerequisite: 203 or consent of department chairperson.

**353—4 SURVEY OF SPANISH LITERATURE (ROMANTICISM TO PRESENT).** Survey of Spanish literature from Romanticism until the present, including such writers as Zorrilla, Becquer, Galdos, Ortega, and Benet. Prerequisite: 203 or consent of department chairperson.

**371—4 SURVEY OF SPANISH-AMERICAN LITERATURE (COLONIAL PERIOD/ROMANTICISM).** Spanish-American literature from the colonial period through romanticism. Prerequisite: 203 or consent of department chairperson.

**372—4 SURVEY OF SPANISH-AMERICAN LITERATURE (FROM INDEPENDENCE THROUGH THE MEXICAN REVOLUTION).** A survey of Spanish-American literature from Independence through the Mexican Revolution. Prerequisite: 203 or consent of department chairperson.

**373—4 SURVEY OF SPANISH-AMERICAN LITERATURE (END OF MODERNISM TO THE NEW NARRATIVE).** A survey of Spanish-American writers from First World War until the present. Prerequisite: 203 or consent of department chairperson.

**451—4 MODERN SPANISH LITERATURE (19TH CENTURY).** Spanish literature of the 19th Century as influenced by trends of European thought of the period: Galdos, Bazan, Benavente, and others. NOT FOR GRADUATE CREDIT. Prerequisite: 203 or consent of department chairperson.

**452—MODERN SPANISH LITERATURE (20TH CENTURY).** Spanish literature of the 20th century with emphasis on the novel, essay, and poetry: Unamuno, Ortega y Gasset, Garcia Lorca, and others. NOT FOR GRADUATE CREDIT. Prerequisite: 203 or consent of department chairperson.

**453—MODERN SPANISH LITERATURE (POST CIVIL WAR).** Spanish literature of the post-Civil War period, with emphasis on the novel, drama, and poetry. NOT FOR GRADUATE CREDIT. Prerequisite: 203 or consent of department chairperson.

**454—2 SEMINAR.** Integration of the specialized major courses and its application to a comprehensive view of the major field in terms of its relationships to the growth of Western Civilization.

**455—2 SEMINAR.** See 454.

**456—2 SEMINAR.** See 454.

**457—4 DON QUIXOTE.** A study of the great novel of Cervantes. Prerequisite: any 300-level Spanish course or consent of department chairperson.

**461—4 SPANISH STYLISTICS.** Study of writing style in Spanish and its application to the development of skill in written expression. For those who wish to do advanced work in the principles of Spanish grammar and composition. Prerequisite: 9 hours of 300-level courses.

**471—4 SPANISH-AMERICAN LITERATURE (SHORT STORY AND NOVEL).** The new Spanish-American short story and novel of the last two decades of the twentieth century. NOT FOR GRADUATE CREDIT. Prerequisite: 203 or consent of departmental chairperson.

**499—2 to 9 READINGS IN SPANISH.** Readings in selected areas of Spanish language, literature, culture, and civilization. Individual work or small groups under direct supervision of one or more members of the foreign language faculty. Prerequisites: 203, consent of department chairperson.

## HUMANITIES

**301—4 HUMANITIES HONORS.** Variable content. May be taken more than once as long as the content differs. Decisions about repeated credit will be the responsibility of the Coordinator of the Humanities Honors Program. Prerequisite: 4.25 GPA or better or consent of instructor and Coordinator of the Humanities Honors Program.

**302—4 HUMANITIES HONORS.** See 301.

**303—4 HUMANITIES HONORS.** See 301.

**310—8 (4,4) ESPERANTO.** Development of the ability to read, write, speak, and understand Esperanto, the international language developed by Ludwik Zamenhof. Must be taken in sequence.

**400—1 to 4 SYMPOSIUM IN THE HUMANITIES.** Usually a short-term course in subject matter beyond the areas covered regularly by the standard curricula. Subject matter may vary each time course is offered. Credit toward concentration is at discretion of department. May be repeated up to 8 hours credit. Prerequisite: senior standing or consent of instructor.

**450—4 CHILDREN AND DEATH.** An examination of death, dying, and bereavement as they occur in or are related to childhood and adolescence. The development of children's concepts and attitudes about death, methods and materials for death education, strategies for counseling, and ethical dimensions.

## 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.

**311—4 ENGINEERING, ETHICS, AND PROFESSIONALISM.** Through case studies, lectures, and discussions the student will be introduced to significant ethical and legal issues which arise in and affect professional engineering. The course will deal with such topics as codes of ethics, engineering and the public interest, employer-employee relationships, and recent Supreme Court decisions. Prerequisite: junior standing.

**312—4 ETHICS IN THE MEDICAL COMMUNITY.** An examination of selected moral problems in the field of medicine such as consumer protection in health-delivery systems, truth-telling in the health professional-patient relationship, medical experimentation on human subjects, suffering and dying, and procreative decisions.

**320—4 PHILOSOPHICAL CONCEPTIONS OF WOMAN.** 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 female perspective through a critical examination of major theoretical works of women's movement. Prerequisite: GHA 282 strongly recommended.

**342—4 SOCIAL AND POLITICAL PHILOSOPHY.** Analysis of philosophical problems of social and political theory and conduct, and their expression in social and political organization and values. Prerequisite: sophomore standing.

**345—4 THE AESTHETICS OF FILM.** An examination of the major genres of film and film theory. Prerequisite: sophomore standing or consent of instructor.

**360—4 PHILOSOPHY OF ART.** The significance of art as a human activity, its nature and standards as seen in the problems of criticism, and the relation of art to other forms of knowledge.

**380—4 CHINESE PHILOSOPHY.** The historical development of Chinese thought from Confucius and Lao Tzu to Mao Tse-Tung.

**385—20 (4,4,4,4,4) HISTORY OF WESTERN PHILOSOPHY.** (a) Greek and Roman. (b) Medieval and Renaissance. (c) Classical Modern (17th and 18th centuries). (d) 19th Century. (e) 20th Century.

**386—4 AMERICAN PHILOSOPHY.** A survey of American philosophical 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 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 OF BUSINESS ETHICS.** An examination of ethical dimensions arising within the economic and business framework with emphasis on decisions confronting the manager. Attention to the problem of corporate responsibility.

**484—12 (4,4,4) HISTORY OF WESTERN POLITICAL THEORY.** (Same as Government 484.) (a) Ancient and Medieval. (b) Renaissance and Early Modern. (c) Recent. May be taken separately.

**490—2 to 6 SPECIAL PROBLEMS.** Seminar for qualified senior and graduate students to pursue specific topics in depth. Varied content. May be repeated to a maximum of 12 hours. Prerequisite: consent of instructor.

**495—2 to 6 INDEPENDENT READINGS.** Independent study of philosophy on a tutorial basis. May be repeated to a maximum of 12 hours. Prerequisite: consent of instructor and chairperson.

## 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., Professor of Philosophical Studies
- David L. Butler, Ph.D., Chairperson and Associate Professor of English Language and Literature
- Rino Cassanelli, M.S., Assistant Professor of Foreign Languages and Literature
- Janet D. Collins, Ph.D., Associate 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., Associate 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., Professor of English Language and Literature
- Ronald J. Glossop, Ph.D., Professor of Philosophical Studies
- William T. Going, Ed.D., Emeritus Professor of English Language and Literature
- Helen D. Goode, Ph.D., Emerita 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., Chairperson and 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
- 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., Associate 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., Associate 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., Associate Professor of English Language and Literature
- Clyde M. Nabe, Ph.D., Associate Professor of Philosophical Studies
- Gerald O'Gorman, Ph.D., Assistant Professor of English Language and Literature
- John L. Oldani, Ph.D., Professor of English Language and Literature
- Betty T. Osiek, Ph.D., Professor of Foreign Languages and Literature
- Thomas D. Paxson, Jr., Ph.D., Associate Professor of Philosophical Studies
- Alfred Pellegrino, Emeritus Professor of Foreign Languages and Literature
- Jane C. Pennell, Ph.D., Associate Professor of English Language and Literature
- Galen K. Pletcher, Ph.D., Chairperson and Associate Professor of Philosophical Studies
- Stella P. Revard, Ph.D., Professor of English Language and Literature
- Betty Richardson, Ph.D., Professor of English Language and Literature
- Fred W. Robbins, Ph.D., Assistant Professor of English Language and Literature
- L. Dan Romani, M.A., 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
- Raymond J. Spahn, Emeritus Professor of Foreign Languages and Literature
- Dickie A. Spurgeon, Ph.D., 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., Emeritus 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., Emeritus Professor of English Language and Literature



# SCHOOL OF NURSING



PATRICIA R. FORNI, DEAN

The School of Nursing offers a program of study leading to the Bachelor of Science degree in Nursing. The Program is accredited by the National League for Nursing.

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.

Students seeking admission to the School of Nursing should consult an Adviser (692-3956) for admission requirements. Prior to admission to the School, applicants must complete the course prerequisites.

Applicants are encouraged to apply at least three quarters prior to the expected quarter of entrance into the School. Forms for this purpose are available in the School of Nursing. Deadline dates for application are: for fall quarter, December 15 of the previous year; for winter quarter, March 15 of the previous year; for spring quarter, June 15 of the previous year. Late applicants will be considered on a space available basis.

Admission criteria for the School include: (1) successful completion of prerequisite courses with grades of C or above, (2) minimum overall grade-point average of 3.50, and (3) 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 completed after those dates will be reviewed on a space available basis.

Applicants are accepted from a list of students whose cumulative grade-point averages are 3.5 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. When there are more qualified applicants than can be accepted into the School of Nursing, selective criteria will be used to rank all qualified applicants. Contact the School of Nursing for detailed information. Because of limited enrollment in the School, all qualified applicants may not be accepted for a specific quarter and are encouraged to reapply for a subsequent quarter.

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. Early application is *not* required for the Registered Nurse.

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.

Annual physical examinations and specific diagnostic requests are required for all students enrolled in the School of Nursing.

All students are encouraged to seek early advisement in the School of Nursing so that an appropriate program of study can be projected, and 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.

### Bachelor of Science Degree, School of Nursing (For students seeking admission to the School of Nursing)

|  |       |
|--|-------|
| General Studies Requirements (See Chapter 4. Waive GSM-8).....                 | 60    |
| Level I Courses.....   | 58    |
| Anthropology: GSS 210-4 <sup>1</sup> .....                                     | (4)   |
| Biology: 210-4 <sup>1</sup> , 312a-5 <sup>1</sup> , 312b-5.....                | 14    |
| Chemistry: 110-12 <sup>1</sup> .....   | 12    |
| Humanities: GHA 322-4, Elective-4.....   | (8)   |
| Nursing 170-4 <sup>1</sup> .....   | 4     |
| Nursing 201 through 242.....   | 20    |
| Psychology: GSS 260-4 <sup>1</sup> , Psychology 305-4.....                     | (4)+4 |
| Science and Mathematics: GSM Elective-4.....                                   | (4)   |
| Skills: GSK 101-4 <sup>2</sup> , 102-4 <sup>2</sup> , 123-4 <sup>2</sup> ..... | (12)  |
| Social Science: GSS Elective-4.....  | (4)   |
| Sociology: GSS 130-4 <sup>1</sup> , 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    |

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<sup>1</sup>Satisfactory completion (C or above) of these courses or their equivalent is prerequisite to admission to the School of Nursing.

<sup>2</sup>Satisfactory completion (as defined by the University) is required for admission to the School of Nursing.

## ACADEMIC STANDARDS

The School expects its students to maintain a minimum grade of C in all courses in the nursing major. Students who fail a nursing course will be referred to the Progression and Retention Committee. Students will be excluded from the School for failures in (a) 2 nursing practicum courses or (b) 1 nursing practicum course and 2 nursing didactic or college laboratory courses or (c) 3 didactic nursing or college laboratory courses. After admission to the School, students must maintain a cumulative grade-point average of 3.0 or above to continue in nursing.

All nursing majors are required to file reports of annual physical examinations. Some 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. Certain textbooks used throughout the curriculum must be purchased the first quarter. These cost approximately \$100.00.

Costs for special tests, such as nose cultures required by clinical agencies, are payable to the Bursar.

The School pin, available only at graduation, costs \$38.00 at this time. The pin may be purchased at the University Bookstore.

Costs for State Board Examinations should also be anticipated.

Students must provide their own transportation to and from clinical agencies. This requires two trips per week for distances as great as 40 miles from the campus.

## COURSES

Courses on the 200, 300, and 400 level are open only to those students who are majoring in nursing.

**170—4 LIFE SPAN DEVELOPMENTAL CONCEPTS.** A developmental study of the individual from conception to senescence, with emphasis on physiologic, psychologic, and social development. Prerequisite: general psychology or consent of instructor.

**201—3 CONCEPTUAL BASIS FOR ASSISTING THE CLIENT IN MAINTAINING EQUILIBRATION I.** This course focuses on the nursing care of individual clients who are in various stages of the health maintenance process. Emphasis is placed on study of the School of Nursing's Conceptual framework and aspects of health maintenance relating to the concepts of client-environment interaction, metabolism, perception and coordination, immunity and inflammation, and oxygenation. Prerequisites: admission to School of Nursing; concurrent enrollment in 211, 221, 231, and 241 is expected; concurrent enrollment in, or completion of, Biology 312b.

**202—3 CONCEPTUAL BASIS FOR ASSISTING THE CLIENT IN MAINTAINING EQUILIBRATION II.** This course focuses on the nursing care of individual clients whose health maintenance process is threatened by stressors. Particular emphasis is placed on the application of biological, psychological and social concepts to the nursing care of individuals in various phases of the health maintenance process due to stressors affecting one or more of the following: reproductive status, perception and coordination, fluid and electrolyte dynamics, and oxygenation. Prerequisites: completion of Quarter 5 nursing courses; concurrent enrollment in 212, 222, 232 and 242 is expected; Biology 312b.

**211—2 PROFESSIONAL NURSING PROCESSES: NURSING PROCESS I.** Utilizing a historical perspective, students study the nursing process as the contemporary framework for providing professional nursing care to individuals. The phases of assessment, including diagnosis and planning, will be emphasized. Prerequisites: admission to School of Nursing; concurrent enrollment in 201, 221, 231, 241 is expected; concurrent enrollment in, or completion of, Biology 312b.

**212—2 PROFESSIONAL NURSING PROCESSES: NURSING PROCESS II.** A further study of the nursing process as the contemporary framework for providing professional nursing care. The phases of intervention and evaluation will be emphasized. Focus is also directed toward 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.** The focus of this course is the development of intra- and interpersonal performance systems. The study of role and role behaviors as these influence/determine the individual's self-concept is presented. The effect of the role perceptions and expectations on nursing practice is explored. The communication process necessary for

establishing and maintaining intra- and interpersonal relationships is examined. Students will be encouraged to examine personal feelings, attitudes and values that affect nursing practice as well as previous experiences that may influence nurse-client (system) relationships. Prerequisites: admission to School of Nursing; concurrent enrollment in 201, 211, 231, and 241 is expected; concurrent enrollment in, or completion of, Biology 312b.

**222—2 INTERPERSONAL RELATIONS.** This course focuses on threats to the maintenance of intrapersonal performance systems. Stress as a human phenomena arising from developmental and situational events is presented. The student studies the defense and coping strategies used by the individual to aid in accommodating to stressors in his environment. The nurse's role in prevention of stress and providing therapeutic support for the client undergoing stress is explored. Prerequisites: completion of Quarter 5 nursing courses and Biology 312b; concurrent enrollment in 202, 212, 232, and 242 is expected.

**231—1 PSYCHOMOTOR NURSING SKILLS I.** Students are introduced to simple skills of client care which provide the foundation for maintaining client equilibration. Basic skills of health assessment are presented including history taking and four basic methods of physical evaluation. These psycho-motor skills are correlated with didactic content from concurrent nursing courses and practiced in simulated clinical situations (nursing laboratory). Prerequisites: admission to the School of Nursing; concurrent enrollment in, or completion of 201, 211, and 221; concurrent enrollment in 241 is expected; concurrent enrollment in, or completion of, Biology 312b.

**232—1 PSYCHOMOTOR NURSING SKILLS II.** This course includes selected nursing skills drawn from concepts presented in the Conceptual Basis and Interpersonal Relations courses. Moderately complex skills are introduced; these skills are utilized in assisting selected clients in the maintenance of equilibration. Prerequisites: completion of Quarter 5 nursing courses; completion of, or concurrent enrollment in, 202, 212, and 222; concurrent enrollment in 242 is expected; Biology 312b.

**241—2 NURSING MAINTENANCE PRACTICUM I.** Through planned learning experiences in a variety of clinical practice settings, students assist individual clients to maintain health. Nursing strategies which assist clients to deal with usual life stressors are utilized. Application of nursing process components and simple psychomotor skills to the care of clients is expected. Prerequisites: admission to the School of Nursing; concurrent enrollment in, or completion of, Biology 312b; concurrent enrollment in, or completion of, other Quarter 5 nursing courses.

**242—2 NURSING MAINTENANCE PRACTICUM II.** Utilizing a variety of structured health care settings, students explore the supportive role of the nurse in assisting clients to maintain individual optimal health status. Emphasis is placed on the use of nursing knowledge and skills with clients whose health maintenance process is threatened due to a change in one or more of the following: reproductive status, perception and coordination, fluid and electrolyte dynamics, and oxygenation. Prerequisites: completion of Quarter 5 nursing courses; Biology 312b; completion of, or concurrent enrollment in, other Quarter 6 nursing courses.

**301—5 CONCEPTUAL BASIS FOR ASSISTING THE CLIENT IN RESTORING EQUILIBRATION I.** This course focuses on the nursing care of clients and their families who are in various stages of the restorative health process. Particular emphasis is placed upon the application of biological, psychological and social concepts to the study of clients facing one or more of the following crises: pregnancy, infection, injury and other emergencies, surgical therapy, and a change in female reproductive status. Prerequisites: completion of Quarter 6 nursing courses; GHA 322; Psychology 305 and Sociology 340; concurrent enrollment in 311, 331, and 341 is expected.

**302—5 CONCEPTUAL BASIS FOR ASSISTING THE CLIENT IN RESTORING EQUILIBRATION II.** This course focuses on the nursing care of clients and their families who are in various stages of the restorative health process due to disturbances in one or more of the following: immunity and inflammation, coordination, and oxygenation. Prerequisites: completion of Quarter 7 nursing courses; concurrent enrollment in 312, 332, and 342 is expected.

**303—5 CONCEPTUAL BASIS FOR ASSISTING THE CLIENT IN RESTORING EQUILIBRATION III.** This course focuses on the nursing care of clients and their families who are in various stages of the restorative health process due to disturbances in one or more of the following: fluid and electrolyte balance, metabolism, and proliferation of cells. Prerequisites: completion of Quarter 8 nursing courses; concurrent enrollment in 313, 333, and 343 is expected.

**304—5 CONCEPTUAL BASIS FOR ASSISTING THE CLIENT IN RESTORING EQUILIBRATION IV.** The course focuses on the nursing care of clients and their families who are in various stages of the restorative health process due to disturbances in perception. Prerequisites: completion of Quarter 9 nursing courses and Psychology 465; concurrent enrollment in 314, 324, and 344 is expected.

**311—2 PROFESSIONAL NURSING PROCESSES: MANAGEMENT I, THE MANAGEMENT OF DECISION MAKING.** Emphasis in this course will be on the process of decision-making and the management of decisions as they relate to nursing practice and moral and ethical issues. Prerequisites: completion of Quarter 6 nursing courses; GHA 322; Psychology 305 and Sociology 340; concurrent enrollment in 301, 331, and 341 is expected.

**312—2 PROFESSIONAL NURSING PROCESSES: TEACHING-LEARNING.** The place of teaching in nursing practice is explored. Each component is presented in depth. Focus is on assessment of learning needs, formulation of teaching plans, and evaluation of health teaching. Prerequisites: completion of Quarter 7 nursing courses; concurrent enrollment in 302, 332, and 342 is expected.

**313—2 PROFESSIONAL NURSING PROCESSES: RESEARCH I.** This course introduces the student to the research process with emphasis on the components which comprise an adequate research study. The focus is on examining professional nursing resources and literature. Prerequisites: completion of Quarter 8 nursing courses; concurrent enrollment in 303, 333 and 343 is expected.

**314—2 PROFESSIONAL NURSING PROCESSES: MANAGEMENT II, THE MANAGEMENT OF HEALTH CARE DELIVERY.** This course is designed to enable the nursing student to gain insight into the theories, concepts and principles of health care administration and management as these relate to professional nursing practice. Emphasis is on developing the level of understanding needed by professional nurses to manage health care services. Prerequisites: completion of Quarter 9 nursing courses and Psychology 465; concurrent enrollment in 304, 324 and 344 is expected.

**324—2 INTERPERSONAL RELATIONS III.** The focus of the course is the use of the group process in promotion, restoration and maintenance of health. Leadership functions and strategies utilized by the nurse working with client groups will be stressed. Prerequisites: completion of Quarter 9 nursing courses and Psychology 465; concurrent enrollment in 304, 314 and 344 is expected.

**331—2 PSYCHOMOTOR NURSING SKILLS III.** This course focuses on performance of nursing assessment and restorative intervention skills associated with labor and delivery, the neonate, emergencies, infection control, surgical therapies, and female reproductive status. Prerequisites: completion of Quarter 6 nursing courses; GHA 322; Psychology 305 and Sociology 340; concurrent enrollment in, or completion of, 301 and 311; concurrent enrollment in 341 is expected.

**332—2 PSYCHOMOTOR NURSING SKILLS IV.** This course focuses on performance of nursing assessment and restorative intervention skills with clients of all ages who experience a change of status in one or more of the following: immunity, coordination, and oxygenation. Prerequisites: completion of Quarter 7 nursing courses; concurrent enrollment in, or completion of, 302 and 312; concurrent enrollment in 342 is expected.

**333—2 PSYCHOMOTOR NURSING SKILLS V.** This course focuses on performance of nursing assessment and restorative intervention skills with clients of all ages who experience a change of status in one or more of the following: perception, fluid and electrolyte balance, and metabolism. Synthesis opportunities are included. Prerequisites: completion of Quarter 8 nursing courses; concurrent enrollment in, or completion of, 303 and 313; concurrent enrollment in 343 is expected.

**341—3 NURSING RESTORATION PRACTICUM I.** Utilizing components of the nursing process, the focus of the course is the changing family during intrapartum and postpartum periods as well as restorative nursing care of clients facing one or more of the following: infection, emergencies, surgical therapy and a change in female reproductive status. Clinical applications involved in making decisions and alternative nursing strategies are included. Prerequisites: completion of Quarter 6 nursing courses; GHA 322, Psychology 305 and Sociology 340; concurrent enrollment in, or completion of, other Quarter 7 nursing courses.

**342—3 NURSING RESTORATION PRACTICUM II.** Emphasis in this course is on the use of restorative nursing skills with pediatric and adult clients who experience disturbances which affect one or more of the following: immunity and inflammation, coordination, and oxygenation. Practice with the teaching/learning process and observation of various profes-



sional nurse roles is included. Prerequisites: completion of Quarter 7 nursing courses; concurrent enrollment in, or completion of, Quarter 8 nursing courses.

**343—3 NURSING RESTORATION PRACTICUM III.** Emphasis in this course is on the use of restorative nursing skills with pediatric and adult clients who experience disturbances which affect one or more of the following: fluid and electrolyte balance, metabolism, and proliferation of cells. Field experiences include the study of different professional nursing roles. Prerequisites: completion of Quarter 8 nursing courses; concurrent enrollment in, or completion of, other Quarter 9 courses.

**344—3 NURSING RESTORATION PRACTICUM IV.** Emphasis in this course is on the use of restorative nursing skills with clients who experience perceptual difficulties. Experience in using principles of management and group process skills in selected settings is also provided. Prerequisites: completion of Quarter 9 nursing courses and Psychology 465; concurrent enrollment in or completion of other Quarter 10 nursing courses.

**351—1 to 4 INDEPENDENT INQUIRY IN NURSING.** This elective course provides an opportunity for the student to improve and expand an area of personal interest by investigation and pursuit through an individually planned experience. Carried out under the guidance of an instructor, the student develops an area of inquiry that will be studied throughout the quarter. May be repeated for a maximum of 8 credit hours. Prerequisites: Quarter 8 nursing courses; consent of instructor and level coordinator; application filed in School of Nursing.

**353—2 NURSING CARE OF EXCEPTIONAL CHILDREN AND OTHER FAMILIES.** An elective designed to increase the student's ability to utilize the nursing process in the care of the exceptional child. Students will have a number of planned experiences in state and community agencies. Students will focus their 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.

**357—4 HEALTH ASSESSMENT.** The focus of this course is on health assessment of the adult and child. This course is designed to teach students the basic skills required for assessment of the adult and child, i.e., taking a comprehensive health history, performing a physical examination and recording the findings. Prerequisite: consent of instructor.

**401—3 CONCEPTUAL BASIS FOR ASSISTING THE CLIENT IN PREVENTING DISEQUILIBRATION I.** This course focuses on the evaluation of the health needs of clients in the community in order to support the health promotion process; levels of prevention, principles of epidemiology and cultural variables affecting health are studied as they relate to preventive nursing concepts and practice. Not for graduate credit. Prerequisites: completion of Quarter 10 nursing courses; concurrent enrollment in 411 and 441 is expected.

**402—3 CONCEPTUAL BASIS FOR ASSISTING THE CLIENT IN PREVENTION OF DISEQUILIBRATION II.** This course focuses on communities as clients in various stages of the health maintenance, restoration or promotion process. Content related to community optimum level of functioning and social systems of the community which affect the health care system are studied. Not for graduate credit. Prerequisites: completion of Quarter 11 nursing courses; concurrent enrollment in 412 and 442 is expected.

**411—2 PROFESSIONAL NURSING PROCESSES: MANAGEMENT III, THE MANAGEMENT OF CHANGE.** This course introduces the student to the concept of change, and the need for the managing of change within the health care system and the nursing profession. The focus is on managing change in professional nursing relationships. Not for graduate credit. Prerequisites: completion of Quarter 10 nursing courses; concurrent enrollment in 401 and 441 is expected.

**412—2 PROFESSIONAL NURSING PROCESSES: RESEARCH II.** This course emphasizes the importance of research to the practice of nursing. Identification of nursing research problems will be accomplished and strategies to test the associated hypotheses will be devised. Not for graduate credit. Prerequisites: completion of Quarter 11 nursing courses; concurrent enrollment in 402 and 442 is expected.

**441—3 PREVENTIVE NURSING PRACTICUM I.** Within the framework of prevention levels, students will apply nursing strategies in the care of clients in a variety of community-based settings. Emphasis will be

placed on promoting change in order to strengthen the coping abilities of clients/ populations at risk. Prerequisites: completion of Quarter 10 nursing courses; concurrent enrollment in, or completion of, other Quarter 11 nursing courses. NOT FOR GRADUATE CREDIT.

**442—3 PREVENTIVE NURSING PRACTICUM II.** This course offers the student an opportunity to synthesize concepts of prevention at the primary, secondary or tertiary level of health care. Professional nursing processes will be utilized with clients in a selected structural, functional or special interest community group. NOT FOR GRADUATE CREDIT. Prerequisites: completion of Quarter 11 nursing courses; concurrent enrollment in, or completion of, Quarter 11 nursing courses; concurrent enrollment in, or completion of, other Quarter 12 nursing courses.

**451—4 NURSING IMPLICATIONS OF DRUG INTERACTIONS AND CLIENT BIOPHYSICAL EQUILIBRATION.** This course is a nursing elective designed to provide the student with the opportunity to relate knowledge of the interactions of pharmacologic classification to the effect of complex drug interactions. Discussions will center around possible nursing actions that lead clients toward equilibration while they are receiving multiple drugs. NOT FOR GRADUATE CREDIT. Prerequisite: consent of instructor.

**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 will be implemented by nursing students under faculty supervision. Focus of the programs will be 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.

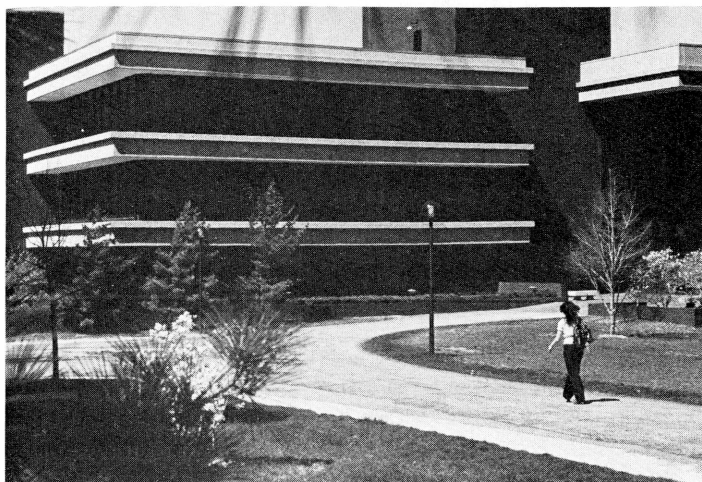
## SCHOOL OF NURSING FACULTY

Betty AuBuchon, M.S., Instructor of Nursing  
 Gynelle Baccus, M.S., Instructor of Nursing  
 Doris Bell, Ph.D., Assistant Professor of Nursing  
 Mary Ann Birnbaum, Ph.D., Assistant Professor of Nursing  
 Barbara Briggs, B.S.N., Assistant in Nursing  
 Gloria Burgess, Ph.D., Assistant Dean and Associate Professor of Nursing  
 Lois Cady, M.S., Assistant Dean and Assistant Professor of Nursing  
 Susan Cohen, M.S., Assistant Professor of Nursing  
 Marcia Custer, M.S., Instructor of Nursing  
 Mary Kay Dittberner, M.S., Instructor of Nursing  
 Patricia Forni, Ph.D., Dean of School and Professor of Nursing  
 Patricia Freed, B.S.N., Assistant in Nursing  
 Ruth Gresley, Ph.D., Assistant Professor of Nursing  
 Rhoda Headley, M.S., Instructor of Nursing  
 Barbara Heater, M.S., Instructor of Nursing  
 Joyce Heitmeier, M.S., Instructor of Nursing  
 Catherine Jones, M.S., Instructor of Nursing  
 Floreine Marshall, M.S., Instructor of Nursing  
 Barbara McDonnell, M.S., Assistant Professor of Nursing  
 Sharon Merritt, M.S., Assistant Professor of Nursing  
 Sylvia Mitchell, M.S., Assistant Professor of Nursing  
 Roberta Olson, M.S., Visiting Instructor of Nursing  
 Norma Pinnell, M.S., Instructor of Nursing  
 Elizabeth Price, M.S., Instructor of Nursing  
 Mona Ruddy, M.S., Assistant Professor of Nursing  
 Janice Rumfelt, M.S., Assistant Professor of Nursing  
 Cindy Schmidt, M.S., Visiting Instructor of Nursing  
 Linda Steele, M.S., Assistant Professor of Nursing  
 Ruby Steele, M.S., Instructor of Nursing  
 Elizabeth Strieker, M.S., Instructor of Nursing  
 Roslyn Sykes, M.S., Assistant Professor of Nursing  
 Betty Boyd Walker, M.S., Assistant Professor of Nursing  
 Lynn Ward, M.S., Instructor of Nursing  
 Martha Welch, Ph.D., Assistant Professor of Nursing

## ADVISER

Shirley Strohmeyer

# SCHOOL OF SCIENCE AND TECHNOLOGY



THOMAS P. ANDERSON, DEAN

**OFFERING DEGREES IN:  
BIOLOGICAL SCIENCES  
CHEMISTRY  
CIVIL ENGINEERING  
CONSTRUCTION  
ELECTRICAL ENGINEERING  
INDUSTRIAL ENGINEERING  
MATHEMATICS, STATISTICS,  
AND COMPUTER SCIENCE  
PHYSICS**

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. 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.

Scientific study is progressive in nature and students must be careful to satisfy all the necessary prerequisites before enrolling in each course. Students are encouraged to select a major field of study early in their academic careers so as to insure an orderly progress toward meeting degree requirements.

## **Academic 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 of credit (or 36 if

two 27-hour minors 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 study of biology includes the whole domain of living things. Its themes extend from the molecular through the cellular and organismic to the population levels of biological organization. Biology includes the study of the pattern of cellular structure, the underlying biochemical pathways, the anatomy and function of whole organisms, the mathematical predictability and molecular basis of inheritance, the flow of energy and matter through living systems, the regulation and interaction of basic life processes, the universality of adaptation, and the interdependence of the biosphere. As these threads are examined and interwoven, the human relationship to the whole world of life becomes apparent. Like all sciences, biology is both cumulative and open-ended in its discoveries. It has to do with the wonders of life, the excitement of discovery, and the challenge of the unknown.

Students who are curious about how living things are put together, how they function, or how they are interrelated with their environment may want to study biology.

## **Career Opportunities**

A variety of careers are available for people with basic or advanced training in Biology. These include careers in subfields like Bacteriology, Botany, Ecology, Environmental Biology, Fisheries Biology, Genetics, Horticulture, Microbiol-

ogy, Molecular Biology, Parasitology, Physiology, Wildlife Management, Immunology, and Zoology. Technical and supervisory positions are available in federal, state, industrial and university laboratories. Environmentally-related and health-related occupations almost always require a sound basic training in Biology. A large majority of students entering Schools of Medicine, Dentistry, Optometry, Osteopathy, Veterinary Science, Chiropractic and Podiatry are Biology majors. A basic training in Biology is also appropriate for many careers in Allied Health Sciences, including nutrition, pharmacy, occupational therapy and physical therapy. Certain of these careers may require more specialized training.

### Specializations in Biological Sciences

The Department of Biological Sciences offers four specializations or options for a Bachelor of Arts or Science Degree in Biology. These are: A. specialization in Biology; B. specialization in Ecology; C. specialization in Medical Science; and D. specialization in Medical Technology. Brief descriptions of these specializations along with the academic requirements for each are given below. The programs are sufficiently flexible to allow students to change from one specialization to another should their goals and interests shift.

### Advisement

Students interested in majoring in one of the options in Biology are advised to declare their major as early as possible and to consult with a Biology adviser without delay. At the time of declaration, the student is informed in writing of the advisement procedures including the name of the faculty adviser assigned to the student. Each student should see his or her adviser prior to the registration period each quarter. Enrollment in Biology courses requires prior approval of the adviser. Biology, particularly specializations in Medical Sciences and Medical Technology, require a definite time sequence if the course requirements are to be completed in four years; and it is thus very important that students seek advisement early in their academic careers. Appointments for advisement may be made by calling the Biology Office at 692-3927.

Sample programs which would permit a student to receive a Bachelor's Degree in Biology under one specialization or another in four years may be obtained from the adviser. The adviser will be pleased to assist the student in preparing a tentative sample program to suit his or her specific needs.

### Academic Requirements

#### Course Performance and Other Requirements:

##### A. Academic Standards

All students pursuing a major in the Biological Sciences must adhere to the following academic standards:

1. A grade of C or better is required in the introductory Biology courses (100 and 101 or the equivalent) before a student can proceed into any of the courses numbered above 299.

2. No more than 5 hours of D may be counted in the 52 hours that are required for a major in the Biological Sciences.

##### B. Credit for General Studies Biology

Students do not receive credit towards the 192 hours required for graduation for GSM 130, 131, 230, or 231 if these are taken after Biology 100, 101, or 200 or equivalent.

##### C. Residency and Other Requirements

Majors in the Biological Sciences must complete at least 24 of the 52 hours in Biology at SIUE. At least two 400-level courses must be included in the 24 hours. Biology major credit will be awarded for courses cross-listed with the Biology curriculum.

Minors in the Biological Sciences must complete at least 12 of the 27 hours in Biology at SIUE. Minors and other students whose program requirements do not include Chemistry 125 may substitute Chemistry 110 for enrollment in any Biology course for which Chemistry 125 is listed as a prerequisite.

## MAJOR IN BIOLOGICAL SCIENCES

### Biology Specialization

The curriculum in this program is designed to provide a firm basis in Biological Sciences for students with a variety of aims. It is an attractive major for students planning to enter graduate school or pursue careers in biological research or in applied work in such areas as agriculture, conservation, wildlife management, etc. Students in this program may elect to concentrate in specific subdisciplines like Botany, Microbiology, Physiology, Cellular and Molecular Biology, Genetics, and Zoology by completing their electives through courses in these areas. Courses available in each subdiscipline are listed at the end of this section.

### Course Requirements - Biology

|  |              |
|--|--------------|
| General Studies Requirements.....  | 52           |
| (Waive GSM-8 and substitute 8 hours of courses included in the requirements below.)  |              |
| Biology Requirements .....   | 52           |
| Either 100 and 101 or 200 <sup>1</sup> ; 301a, 302a, 302c, 303a .....  | 24-28        |
| Electives above 299 (except 312) .....   | 28-24        |
| A minimum of three courses at the 400-level is required. 491, 493, and 494 may be used as electives but will not fulfill the 400-level course requirement. |              |
| Chemistry Requirements .....   | 29           |
| 125, 126, 241, 245a  |              |
| Mathematics/Physics Requirements .....   | 16-19        |
| MSCS 150 and GSM 101 <b>OR</b>   |              |
| Physics 206 (or 211 and 212) .....   | 12-15        |
| A Course in statistics (GSM 244 or equivalent) .....   | 4            |
| Foreign Language Requirement (required for B.A., <b>not</b> required for B.S.) .....   | 12           |
| Electives (B.A., B.S.) .....   | 31-28, 43-40 |

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<sup>1</sup>Biology 200 is an accelerated course which will be available only to students meeting special prerequisites. See course description.

### Subdisciplines

**Botany:** Electives available include: Biology 419—Plants and Environment; 421—Economic Botany; 447—Topics in Plant Physiology; 455—Plant Anatomy; 456—Plant Microtechnique; 470—Field Botany; 471—Phycology.

**Microbiology:** Electives available include: Biology 304a—Introduction to Microbiology; 304b, c—Medical Microbiology;



404a—Microbial Physiology; 413—Microbial Genetics; 465a—Immunology; 471—Phycology.

**Physiology:** Electives available include: 302d—Physiology; 402a, b—Molecular Biology Laboratory; 404a—Microbial Physiology; 406—Cell Organelles and Inclusions; 441, 442—Mammalian Physiology and Laboratory; 444—Integrative Physiology and Laboratory; 445—Endocrinology; 446—Biochemical Aspects of Hormone Regulation; 447—Topics in Plant Physiology.

**Cellular and Molecular Biology and Genetics:** Electives available include: 400—Molecular Biology; 402—Molecular Biology Laboratory; 404a—Microbial Physiology; 405—Techniques in Cell and Tissue Culture; 406—Cell Organelles and Inclusions; 410—Advanced Genetics; 411—Human Genetics; 413—Microbial Genetics; 445—Endocrinology; 465a—Basic Concepts in Immunology; 465b—Basic Procedures in Immunochemistry.

**Zoology:** Electives available include: Biology 314—Functional Morphology of Vertebrates; 315—Embryology; 423—Principles of Parasitism; 435—Ethology; 441—Mammalian Physiology; 445—Endocrinology; 480—Field Zoology; 483—Principles of Entomology; 485—Ichthyology; 486—Herpetology; 487—Ornithology; 488—Mammalogy; 489—Biology of the Primates.

### Ecology Specialization

The recent rapid advances in technology combined with growing awareness of the impact of human activity on the environment have resulted in the development of broad teaching and research areas in biological ecology.

Ecology is the study of interactions between living organisms and their environment. Ecology integrates biological disciplines through the study of individuals, populations, communities, and ecosystems. This area of study has both academic and practical importance. It stimulates our own intellectual curiosity while providing increasing knowledge and new techniques to insure the health, productivity, and diversity of the biosphere.

The Ecology Specialization within the Biological Sciences Bachelor's Degree Program will prepare students for positions which require application of ecological principles and processes to those modes of human activity which are environmentally responsive.

A student selecting this specialization will take a planned sequence of basic ecology courses which include: 1) ecological principles, 2) a course in aquatic ecosystems; and 3) a course in terrestrial ecosystems. In addition, 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, or physiological and biochemical ecology. Students may obtain more information about various emphases within the specializations from their advisers.

### Course Requirements - Ecology

|   |    |
|---|----|
| General Studies Requirements .....  | 52 |
| (Waive GSM-8 hours and substitute 8 hours<br>of courses included in the requirements<br>below.) |    |
| Biology Requirements .....  | 52 |

Either 100 and 101 or 200<sup>1</sup>; 301a, 302a, 302c,  
303a, 325, 425, 426 ..... 36-40  
Electives above 299 (except 312)

Must include at least one course from 303b;  
419; 420; 423; 443; 470; 471; 480; 483; 485;  
486; 487; 488 .....

|  |       |
|--|-------|
| 16-12  |       |
| Chemistry Requirements .....                         | 29    |
| 125, 126, 241, and 245a                              |       |
| Mathematics/Physics Requirements .....               | 27-26 |
| MSCS 150 .....                                       | 8     |
| Physics 206 or 211 and 212 .....                     | 15-14 |
| A course in statistics (GSM 244 or equivalent) ..... | 4     |
| A course in computer language is recommended .....   | 4     |
| Electives .....                                      | 32-33 |

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<sup>1</sup>Biology 200 is an accelerated course which will be available only to students meeting special prerequisites. See course description.



### Medical Sciences Specialization

The pre-health professions curriculum will provide the necessary preparation to qualify an individual for entry into Medical, Dental, Veterinary, Optometry, Osteopathy, Chiropractic and Podiatry schools, as well as into many other allied health programs.

A student considering a health-related profession should demonstrate above-average ability in the natural sciences. These individuals should also exhibit general and special traits commonly associated with health practitioners, e.g., persistence, curiosity, good judgment, initiative, emotional maturity, and attention to details. The pre-dental student should also have or develop good manual skills and ability to make acute judgments on space and shapes.

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.

Students declaring into the Medical Science Specialization will be advised by a Biology/Medical Science adviser

with regard to their academic curricula. Since professional schools adhere rigidly to their entrance requirements and since there is a definite time sequence for completion of these requirements, students in this specialization should seek advisement early to insure satisfactory progress.

A Pre-professional Committee maintains a centralized recommendation service to aid the students seeking entry into professional schools during the application process. The Chairperson of this Committee is available in the Biology Department to help and advise such students with regard to application procedures.

### Course Requirements - Medical Science

|  |       |
|--|-------|
| General Studies Requirements.....  | 52    |
| (Waive GSM-8 and substitute 8 hours of courses included in the requirements below.)  |       |
| Biology Requirements .....   | 52    |
| Either 100 and 101 or 200 <sup>1</sup> ; 301a, 302a, 302d, 303a, 304a; 314 or 315; and 301e or 400..... 37-47  |       |
| Electives above 299 (except 312) .....   | 15- 5 |
| A minimum of three courses at the 400-level is required. 400a, b, c will be considered as equivalent to two 400-level courses. 491, 493, and 494 may be used as electives but will not fulfill the 400-level course requirement. |       |
| Chemistry Requirements .....   | 29    |
| 125, 126, 241, 245a  |       |
| Mathematics/Physics Requirements .....   | 22-23 |
| MSCS 150 .....   | 8     |
| Physics 206 or 211 and 212 .....   | 14-15 |
| Electives .....  | 37-36 |

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<sup>1</sup>Biology 200 is an accelerated course which will be available only to students meeting special prerequisites. See course description.

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.

### Medical Technology Specialization

This degree specialization is designed for those students who wish to become certified Medical Technologists—MT (ASCP). Medical technologists should have a firm understanding of the theory behind diagnostic tests which they perform in the clinical laboratory. Their responsibilities encompass all of the clinical laboratory disciplines, such as clinical chemistry, urinalysis, hematology, serology, and immunology, blood and organ banking, microbiology, and parasitology, and nuclear medicine. As self-motivated, inquisitive scientists, Medical Technologists contribute to the development of new methods and laboratory instrumentation which aid the physician in the prevention and cure of disease. Most Medical Technologists are employed in hospitals, but private laboratories, physicians' offices, governmental agencies, industrial and pharmaceutical laboratories, and university research programs offer dramatically increasing opportunities for employment and advancement.

The American Medical Association's Council on Medical Education, the American Society of Clinical Pathologists (ASCP), and the American Society for Medical Technology

collaborate in determining minimum standards for educational programs for Medical Technologists. The first three years of the program take place on the SIUE campus. During this time fundamental knowledge and skills in biology, chemistry, physics, and mathematics are to be mastered, as well as the general education courses. The fourth calendar year of clinical/professional study takes place in a clinical laboratory setting at any one of our affiliated hospital schools of Medical Technology. Acceptance to this last year of study is on a competitive basis and is not guaranteed to any student in the program. (SIUE does not charge tuition during this year of study.) Fifty-five hours of University credit will be awarded students who successfully complete the internship program. The credits will be assigned for courses in blood banking, chemistry, coagulation, hematology, microbiology, mycology, parasitology, serology, urinalysis, and other courses as specified in the affiliation agreement with each affiliate. The student is awarded the Bachelor of Science in Biology/Medical Technology degree by SIUE upon completion of all four years of this program. 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).

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 and careful scheduling is needed in order to complete the academic portion of their program in three years.

### Course Requirements - Medical Technology

|   |       |
|---|-------|
| General Studies Requirements.....   | 52    |
| (Waive GSM-8 and substitute 8 hours of courses included in the requirements below.)   |       |
| Biology Requirements .....  | 42    |
| Either 100 and 101 or 200 <sup>2</sup> ; 301a, 302a, 302d, 303a, 304. (312 may be substituted for 302a and 302d)..... 35-39 |       |
| Electives above 299 .....   | 7- 3  |
| Chemistry Requirements .....  | 34    |
| 125, 126, 241, 245a, 335  |       |
| Mathematics/Physics Requirements .....  | 13-17 |
| GSM 101 and GSM 144.....  | 9     |
| A course in statistics (GSM 244 or equivalent) or MSCI 150 .....  |       |
| Clinical Internship at Hospital School of Medical Technology .....  | 4- 8  |
|   | 55    |

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<sup>2</sup>Biology 200 is an accelerated course which will be available only to students meeting special prerequisites. See course description.

### Major in Biological Sciences, Secondary Education Specialization

For this degree the requirements for a major in biology are as listed above, under Bachelor of Arts degree, with the following exceptions: no foreign language is required; a minimum grade of C is required in each of the following courses: 100, 101, 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. (For more details, see Secondary Education requirements.)

### Minor in Biological Sciences

Students wishing to complete a minor in the Biological

Sciences must take a minimum of 27 hours of biology courses, at least 12 of which must be completed at SIUE in courses numbered above 300.

Requirements include:

- 1) Either 100, 101 (or 200).
- 2) At least two Biology courses from the following group: Biology 301a (Cell Biology), 302a (Animal Life), 302c (Plant Life), 302d (Physiology) **OR** 312 (Human Anatomy and Physiology); 303a (Genetics); 325 (Basic Ecological Principles and Concepts).
- 3) Electives: The remaining hours may be completed with any courses in the Biological Sciences except 491 and 493. No more than 4 hours may be counted from GSM 230, 231, 232, 233, 234, 236. (GSM 130 and 131 are not available for minor credit.)

## CHEMISTRY

If you want to major in Chemistry, or think that you may want to, visit or call the Department of Chemistry (Room SL 2325; telephone 692-2042) as soon as possible. You will be assigned to a faculty adviser who will help you plan your academic program. Early advisement will enable you to complete your program with minimum conflicts and within the shortest possible time.

### Career Opportunities

The undergraduate chemistry curriculum prepares you for a wide variety of careers. Many of our chemistry majors choose to continue their studies with graduate work in chemistry or biochemistry. Others are accepted by schools of medicine, dentistry, veterinary medicine, and pharmacy. Still others begin a career in industry upon graduation. Most industrial chemists work for companies involved in making everyday necessities, such as drugs, plastics, fertilizers, and semiconductors.

Opportunities to make significant contributions to society are available to chemistry graduates who have additional training in other fields, such as computer science, ecology, economics, law, library science, marketing, medicine, and technical writing.

## MAJOR IN CHEMISTRY

The Department of Chemistry offers Bachelor of Science (B.S.) and Bachelor of Arts (B.A.) degrees. The B.S. curriculum satisfies the guidelines of the American Chemical Society (ACS) for the training of professional chemists, and all graduates with this degree will be certified by the ACS as having completed an approved program. The B.A. curriculum has fewer chemistry requirements than the B.S. curriculum in order to accommodate a variety of student goals. There are three specializations available to you: (a) a very flexible program which gives a general introduction to chemistry, and which is supplemented by electives in chemistry or other fields; (b) a more structured program which provides preprofessional training for the medical science professions; and (c) a program which leads to certification for teaching high school chemistry. These requirements and courses may change; your adviser will have the most recent information. The degree requirements which follow are in addition to the graduation requirements of the University (Chapter 3) and the School of Science and Technology (Chapter 5).

## Bachelor of Science Degree

The B.S. degree does not require a minor. You must, however, be able to read a foreign language and solve chemical problems on a computer before you graduate. Your adviser will help you decide how best to meet these requirements. Here are the requirements for the Bachelor of Science degree, American Chemical Society Approved Program.

### American Chemical Society (ACS) Approved Program

|  |       |
|--|-------|
| General Studies Requirements (See Chapter 4. You may replace 8 hours of GSM with 8 hours from the science courses listed below.) | 52    |
| Chemistry Requirements   | 69    |
| Chemistry 125a, b, c   | 11    |
| Chemistry 126a, b, c   | 4     |
| Chemistry 241a, b, c   | 12    |
| Chemistry 245a, b  | 4     |
| Chemistry 335  | 5     |
| Chemistry 345  | 3     |
| Chemistry 361a, b, c   | 12    |
| Chemistry 365a, b  | 4     |
| Chemistry 411  | 4     |
| Chemistry 432a   | 4     |
| Chemistry 451a <sup>1</sup>  | 3     |
| Chemistry Elective <sup>2</sup>  | 3     |
| Mathematics Requirements   | 16    |
| MSCS 150a, b   | 8     |
| MSCS 260a, b   | 8     |
| Physics Requirements   | 14    |
| Physics 211a, b, c   | 12    |
| Physics 212a, b  | 2     |
| Additional Science Elective (may be Chemistry)   | 2-4   |
| Other Electives  | 37-39 |

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<sup>1</sup>Biology 301e (3) or Biology 400e (3) may be substituted for this course.

<sup>2</sup>Chemistry 396 or a chemistry course at the 400 level.

## Bachelor of Arts Degree

The flexibility of the chemistry requirements for the B.A. degree is described above. The requirement as to a minor is flexible also; you may choose between two alternatives. You may take a minor and satisfy the requirements established by the department offering that minor and by the School of Science and Technology, or you may take a group of courses from more than one department which will support your major educational and career objectives. If you choose the second alternative, your program must include at least four supporting courses that total at least 16 hours of credit; the physics and mathematics courses required for the B.A. program do not count as supporting courses. The supporting courses must be approved by your adviser.

Here are the requirements for the three B.A. specializations.

### (a) Basic Chemistry Program, Bachelor of Arts

|  |       |
|--|-------|
| General Studies Requirements (See Chapter 4. You may replace 8 hours of GSM with 8 hours from the science courses listed below.) | 52    |
| Foreign Language Requirement   | 12    |
| Chemistry Requirements   | 56-62 |
| Chemistry 125a, b, c   | 11    |
| Chemistry 126a, b, c   | 4     |
| Chemistry 241a, b, c   | 12    |
| Chemistry 245a   | 2     |
| Chemistry 335  | 5     |
| Chemistry 361a, b, c, 365a, b  | 10-16 |
| Chemistry Electives  | 12    |



|  |          |
|--|----------|
| Mathematics Requirements .....             | 8        |
| MSCS 150a, b .....                         |          |
| Physics Requirements .....                 | 12 or 15 |
| Physics 211a, b, c or 206a, b, c .....     |          |
| Approved Supporting Courses or Minor ..... | 16-27    |
| Other Electives .....                      | 16-36    |
|  | 192      |

### **(b) Major in Chemistry, Medical Science Specialization**

|  |          |
|--|----------|
| General Studies Requirements (See Chapter 4. You may replace 8 hours of GSM with 8 hours from the science courses listed below.) ..... | 52       |
| Foreign Language Requirement .....   | 12       |
| Chemistry Requirements .....   | 51-57    |
| Chemistry 125a, b, c .....   | 11       |
| Chemistry 126a, b, c .....   | 4        |
| Chemistry 241a, b, c .....   | 12       |
| Chemistry 245a, b .....  | 4        |
| Chemistry 335 .....  | 5        |
| Chemistry 451a .....   | 3        |
| Chemistry 361a, b, c, 365a, b .....  | 10-16    |
| Chemistry Electives .....  | 2        |
| Mathematics Requirements .....   | 8        |
| MSCS 150a, b .....   |          |
| Physics Requirements .....   | 12 or 15 |
| Physics 211a, b, c or 206a, b, c .....   |          |
| Biology Requirements .....   | 12       |
| Biology 200 .....  | 4        |
| Biology 301a .....   | 5        |
| Biology Electives .....  | 3        |
| Other Electives (additional Chemistry and Biology recommended) ..  | 36-48    |
|  | 192      |

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.

### **(c) Major in Chemistry, Secondary Education Specialization**

|  |          |
|--|----------|
| General Studies Requirements (See Chapter 4. You may replace 8 hours of GSM with 8 hours from the science courses listed below.) ..... | 52       |
| Foreign Language Requirement .....   | 12       |
| Chemistry Requirements .....   | 51-57    |
| Chemistry 125a, b, c .....   | 11       |
| Chemistry 126a, b, c .....   | 4        |
| Chemistry 241a, b, c .....   | 12       |
| Chemistry 245a .....   | 2        |
| Chemistry 335 .....  | 5        |
| Chemistry 361a, b, c, 365a, b .....  | 10-16    |
| Chemistry 245b or 311 or 451a .....  | 2-3      |
| Chemistry Electives .....  | 6-5      |
| Mathematics Requirements .....   | 8        |
| MSCS 150a, b .....   |          |
| Physics Requirements .....   | 12 or 15 |
| Physics 211a, b, c or 206a, b, c .....   |          |
| Professional Education Requirements .....  | 47       |
| Secondary Education 215 .....  | 4        |
| Secondary Education 401a, b, c .....   | 33       |
| Secondary Education 487 .....  | 4        |
| Physical Education .....   | 6        |
| Other Electives .....  | 1-10     |
|  | 192      |

Scheduling for the third and fourth years involves coordination between the chemistry and secondary education programs. The student should contact the Department of Chemistry undergraduate adviser for specific program details.

### **Minor in Chemistry**

A minor in chemistry normally includes Chemistry 125a, b, c, 126a, b, c, and additional chemistry courses at the 200 level or higher to total at least 27 hours; at least 3 hours must be taken at SIUE. Chemistry 105 is not acceptable for a minor. You must obtain written approval from the Department of Chemistry for a program which does not include Chemistry 125a, b, c or 126a, b, c. This approval should be requested early in your program planning.

## **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, and Industrial Engineering. The Civil Engineering and Electrical Engineering programs are accredited by the Accreditation Board for Engineering and Technology (ABET)<sup>1</sup>, 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. The construction program is designed to provide the graduates with the knowledge and skills necessary to coordinate the multifaceted aspects of the construction industry.

Students who are interested in any of the majors offered by the Department should seek advisement from the Department when they initially enroll in the University. Enrollment in 300- or 400-level engineering courses is limited to engineering majors who have completed the pre-engineering program described below. Students with an engineering minor may enroll in these courses with the permission of their minor adviser. Any other student wishing to enroll in 300- or 400-level engineering courses may do so only with the permission of the Chairperson of the Department of Engineering and Technology.

All students majoring in pre-engineering or one of the engineering fields must purchase a scientific pocket calculator and their own drafting instruments. In addition, they are required to purchase their technical textbooks.

<sup>1</sup>Formerly called the Engineers Council for Professional Development (EDPD).

## **PRE-ENGINEERING**

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

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

Engineering Science: Engineering 110, 200, 260a, b, 270.

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

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

Although humanities and social sciences are not part of the pre-engineering program, they complement the education

of an engineer. Thus, to receive the Bachelor of Science in Engineering degree the student must complete 12 hours in one of the general areas of humanities or 8 hours in each of two areas of humanities. Language courses are not accepted toward this requirement. In addition, 8 hours in one of the general areas of social sciences, other than economics, must be completed. These requirements may be, but are not necessarily, satisfied by the completion of the University General Studies requirements.

All students, both those enrolled at SIUE and those wishing to transfer to SIUE, must apply for admission to one of the engineering majors no later than April 15 preceding the fall quarter they wish to begin their junior year. In general, this will be during the last quarter of the pre-engineering program.

### SAMPLE PROGRAM: PRE-ENGINEERING

#### Freshman Year

| FALL      | WINTER        | SPRING        |     |
|-----------|---------------|---------------|-----|
| GSK 101   | - 4 GSK 102   | - 4 GSK 123   | - 4 |
| Math 150a | - 4 Math 150b | - 4 Math 260a | - 4 |
| Chem 125a | - 4 Chem 125b | - 4 Phys 211a | - 4 |
| Chem 126a | - 1 Chem 126b | - 1 Math 172  | - 2 |
| GHA Elec. | - 4 Engr 101a | - 2           |     |
| Engr 110  | - 0           |               |     |
|           | 17            | 15            | 14  |

#### Sophomore Year

| FALL      | WINTER        | SPRING       |     |
|-----------|---------------|--------------|-----|
| Math 260b | - 4 Math 260c | - 4 Math 305 | - 4 |
| Phys 211b | - 4 Phys 211c | - 4 Engr 200 | - 4 |
| Phys 212a | - 1 Phys 212b | - 1 Engr 270 | - 4 |
| Engr 260a | - 4 Engr 260b | - 4 GHA Elec | - 4 |
| GHA Elec  | - 4 GHA Elec. | - 4          |     |
|           | 17            | 17           | 16  |

#### Transfer Students

A transfer student wishing to enter Pre-engineering or one of the Engineering majors must contact the Department of Engineering and Technology for a transfer credit evaluation at least 30 days prior to the start of the quarter during which entry is desired. The student must supply copies of the pertinent transcripts and any other materials, such as course descriptions, syllabi, etc., that may be needed to perform the evaluation. Note that those students transferring at the Junior and Senior level must also meet the April 15 deadline for applying for admission to an Engineering major.

Only courses passed within the last 10 years with a letter grade of A, B, or C will be considered for transfer credit applying to any course bearing an Engineering number. In addition, courses that were not part of an ABET accredited engineering program will normally not be considered for transfer credit toward any 300 or 400 level engineering course. The final decision of the acceptance of transfer credit applied to Engineering courses shall be that of the faculty of the Department of Engineering and Technology.

#### Academic Requirements

A student in an Engineering major must meet all University retention standards. In addition, satisfactory progress towards the Engineering degree must be maintained. The progress of each student will be evaluated during the summer quarter. A grade-point average of at least 3.0 on a scale of 5.0 must have been maintained. A full-time student must have completed at least 24 credit hours of course work leading to the Engineer-

ing degree within the preceding 12 calendar months. Any student who has not made satisfactory progress may be removed from the Engineering major.

A student who is preparing for a career in Engineering is bound to the same code of ethics as the practicing engineer. Any violation of this code will result in disciplinary action which may include dismissal from the Engineering Program. Copies of the code of ethics are available in the Engineering and Technology office.

An Engineering major on Scholastic Suspension may apply for readmission by written application to the Undergraduate Admissions and Retention Committee. The committee will give its recommendations to the Dean. If the student is readmitted, the conditions of the readmission must be met, or the student will be removed from the Engineering major.

### CIVIL ENGINEERING

Civil Engineering is the oldest of the engineering disciplines and is best described by the official description of civil engineering as adopted by the American Society of Civil Engineers in 1961: "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 the environment, in providing facilities for community living, industry, and transportation, and in providing structures for the use of mankind." Since civil engineering is an extremely broad discipline, a limited degree of specialization in the fields of environment, structures, and transportation is allowed through the choice of senior electives. Brief descriptions of these fields of civil engineering are provided below.

Environmental engineers strive to improve the community'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.

The structural engineer is employed by a wide range of industries and agencies, primarily in the planning and design phase of projects. Strength and safety are the main concerns of the structural engineer. Typical projects include the design of buildings, bridges, dams, containment vessels and power plants. Academic preparation includes studies in the areas of design (efficient and safe utilization of engineering materials, such as steel and concrete) and analysis (prediction of the structural forces and deformations caused by imposed loadings) in addition to a background in the physical sciences and mathematics.

The transportation engineer is involved in planning, designing, and constructing the nation's transportation systems. The transportation engineer assists in the local and regional transportation planning processes and in assuming an increasing role in the operation and maintenance of these systems. Diverse factors, such as structural design of pavements, vehicle operational characteristics, geometric design, traffic control, and site selection, are major concerns to the transportation engineer who 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

|  |        |
|--|--------|
| General Studies Requirements (See Chapter 4.)  | 60     |
| Chemistry 125a, b-8, 126a, b-2   | (4)+6  |
| Economics 201, 305   | (4)+4  |
| Engineering 110-0, 101a-2, 200-4, 230-3, 260-8, 263-3, 270-4, 300-3, 314-4, 316-4, 319-4, 320-3, 321-1, 340a-4, 370-4, 376-4, 380a-4, 419-3, 421-1, 440-4, 442-4, plus 16 hours of engineering electives | 87     |
| Mathematics 150-8, 172-2, 260-12, 305-4  | (4)+22 |
| Physics 211-12, 212-2  | 14     |

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### SAMPLE PROGRAM: CIVIL ENGINEERING

#### Junior Year

| FALL     | WINTER       | SPRING        |     |
|----------|--------------|---------------|-----|
| Engr 230 | - 3 Engr 314 | - 4 Engr 340a | - 4 |
| Engr 263 | - 3 Engr 319 | - 4 Engr 376  | - 4 |
| Engr 300 | - 3 Engr 370 | - 4 Engr 380a | - 4 |
| Engr 316 | - 4 Econ 305 | - 4 GSK Elec. | - 4 |
| Econ 201 | - 4          |               |     |
|          | 17           | 16            | 16  |

#### Senior Year

| FALL       | WINTER         | SPRING         |     |
|------------|----------------|----------------|-----|
| Engr 440   | - 4 Engr 421   | - 1 Engr 320   | - 3 |
| Engr Elec. | - 8 Engr 442   | - 4 Engr 321   | - 1 |
| GSS Elec.  | - 4 Engr Elec. | - 4 Engr Elec. | - 4 |
|            | Engr 419       | - 3 GSS Elec.  | - 4 |
|            | GSS Elec.      | - 4 GIS Elec.  | - 4 |
|            | 16             | 16             | 16  |

### 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. The electrical engineer may be involved in the design of huge power plants and transmission systems to satisfy the increasing demands for electrical energy.

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. The range of applications of electrical engineering is very wide; for this reason 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

|  |        |
|--|--------|
| General Studies Requirements (See Chapter 4.)  | 60     |
| Chemistry 125a, b-8, 126a, b-2   | (4)+6  |
| Economics 201, 305   | (4)+4  |
| Engineering 110-0, 101a-2, 200-4, 260-8, 270-4, 301-3, 326-3, 327-3, 330-8, 341-4, 350-4, 351-4, 352-4, 353-3, 401-2, 402-4, 444-3, 445-1, plus 16 hours engineering electives | 80     |
| Mathematics 150-8, 172-2, 260-12, 305-4  | (4)+22 |
| Physics 211-12, 212-2, 302-8   | 22     |

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### SAMPLE PROGRAM: ELECTRICAL ENGINEERING

#### Junior Year

| FALL      | WINTER        | SPRING        |     |
|-----------|---------------|---------------|-----|
| Engr 301a | - 1 Engr 301b | - 1 Engr 301c | - 1 |
| Engr 350  | - 4 Engr 351  | - 4 Engr 352  | - 4 |
| Engr 326  | - 3 Engr 327  | - 3 Engr 353  | - 3 |
| Phys 302a | - 4 Phys 302b | - 4 Engr 330a | - 4 |
| Econ 201  | - 4 Econ 305  | - 4 GSK Elec. | - 4 |
|           | 16            | 16            | 16  |

#### Senior Year

| FALL       | WINTER         | SPRING         |     |
|------------|----------------|----------------|-----|
| Engr 401a  | - 1 Engr 401b  | - 1 Engr 445   | - 1 |
| Engr 330b  | - 4 Engr 341   | - 4 Engr Elec. | - 8 |
| Engr 402   | - 4 Engr 444   | - 3 GSS Elec.  | - 4 |
| Engr Elec. | - 4 Engr Elec. | - 4 GIS Elec.  | - 4 |
| GSS Elec.  | - 4 GSS Elec.  | - 4            |     |
|            | 17             | 16             | 17  |

### INDUSTRIAL ENGINEERING

Industrial engineering is a very special profession having 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 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 subjects are exceedingly important because a productivity problem almost invariably is made up of several different physical effects, which can be dealt with effectively and properly only if one has a sound knowledge of the underlying causes. The industrial engineer is also broadly exposed to the world of human relations, including labor relations and motivation techniques.





### Bachelor of Science in Engineering Degree, School of Science and Technology

#### Major in Industrial Engineering

|  |            |
|--|------------|
| General Studies Requirements (See Chapter 4.)  | 60         |
| Accounting 233   | 4          |
| Chemistry 125a, b-8, 126a, b-2   | (4)+6      |
| Economics 201, 305   | (4)+4      |
| Engineering 110-0, 101a-2, 200-4, 260-8, 270-4, 300-3, 303-3, 320-3, 321-1, 332, 348, 410, 432, 458, 460, 471, 472, 474, 479, plus 12 hours of engineering electives | 80         |
| Mathematics 150-8, 172-2, 260-12, 305, 380   | (4)+26     |
| Physics 211-12, 212-2  | 14         |
|  | <b>194</b> |

#### SAMPLE PROGRAM: INDUSTRIAL ENGINEERING

##### Junior Year

| FALL      | WINTER        | SPRING        |           |
|-----------|---------------|---------------|-----------|
| Engr 303a | - 1 Engr 303b | - 1 Engr 303c | - 1       |
| Engr 332  | - 4 Engr 410  | - 4 Engr 320  | - 3       |
| Engr 348  | - 4 Engr 471  | - 4 Engr 321  | - 1       |
| Econ 201  | - 4 Econ 305  | - 4 Engr 432  | - 4       |
| Math 380  | - 4 GSK Elec. | - 4 Engr 472  | - 4       |
|           |               | Acct 233      | - 4       |
|           | <b>17</b>     | <b>17</b>     | <b>17</b> |

##### Senior Year

| FALL       | WINTER         | SPRING         |           |
|------------|----------------|----------------|-----------|
| Engr 300   | - 3 Engr 479   | - 4 Engr 474   | - 4       |
| Engr 458   | - 4 Engr 460   | - 4 Engr Elec. | - 4       |
| Engr Elec. | - 4 Engr Elec. | - 4 GSS Elec.  | - 4       |
| GSS Elec.  | - 4 GSS Elec.  | - 4 GIS Elec.  | - 4       |
|            | <b>15</b>      | <b>16</b>      | <b>16</b> |

### 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

|  |            |
|--|------------|
| General Studies Requirements (See Chapter 4.)  | 60         |
| Accounting 230, 232  | 8          |
| Chemistry 110a   | 4          |
| Economics 201, 331   | (4)+4      |
| Engineering 101a-2, 263-3, 260a, 270   | 13         |
| Finance 320  | 4          |
| Management 342, 390  | 8          |
| Mathematics 150a, b, 260a  | (4)+8      |
| Physics 211a, b, c   | (4)+8      |
| Construction 102, 201, 202, 264, 301, 302, 321-3, 331-3, 332-3, 341, 351, 352, 375-2, 403, 411, 451, 475-2 | 62         |
| Electives  | 13         |
|  | <b>192</b> |

#### SAMPLE PROGRAM: CONSTRUCTION

##### Freshman Year

| FALL      | WINTER        | SPRING        |           |
|-----------|---------------|---------------|-----------|
| Math 150a | - 4 Math 150b | - 4 Math 260a | - 4       |
| GSK 101   | - 4 GSK 102   | - 4 GSK 123   | - 4       |
| Chem 110a | - 4 GHA Elec. | - 4 GSS Elec. | - 4       |
| Const 101 | - 1 Const 102 | - 4 Engr 263  | - 3       |
| Engr 101a | - 2           |               |           |
|           | <b>15</b>     | <b>16</b>     | <b>15</b> |

##### Sophomore Year

| FALL      | WINTER        | SPRING        |           |
|-----------|---------------|---------------|-----------|
| Phys 211a | - 4 Phys 211b | - 4 Phys 211c | - 4       |
| Econ 201  | - 4 Acct 230  | - 4 Acct 232  | - 4       |
| Const 264 | - 4 Const 201 | - 4 Const 202 | - 4       |
| GSS Elec. | - 4 GHA Elec. | - 4 Engr 260a | - 4       |
|           | <b>16</b>     | <b>16</b>     | <b>16</b> |

##### Junior Year

| FALL      | WINTER         | SPRING         |           |
|-----------|----------------|----------------|-----------|
| Const 301 | - 4 Const 302  | - 4 Const 332  | - 3       |
| Const 321 | - 3 Const 331  | - 3 Const 341  | - 4       |
| Engr 270  | - 4 Const 351  | - 4 Const 352  | - 4       |
| GIS Elec. | - 4 Const 375a | - 1 Const 375b | - 1       |
|           | GSS Elec.      | - 4 GHA Elec.  | - 4       |
|           | <b>15</b>      | <b>16</b>      | <b>16</b> |

##### Senior Year

| FALL      | WINTER         | SPRING         |           |
|-----------|----------------|----------------|-----------|
| Const 403 | - 4 Const 475a | - 1 Const 411  | - 4       |
| Econ 331  | - 4 GBA 342    | - 4 Const 451  | - 4       |
| GHA elec. | - 4 GBA 390    | - 4 Const 475b | - 1       |
| Elec.     | - 5 GSK Elec.  | - 4 Fin 320    | - 4       |
|           | Elec.          | - 4 Elec.      | - 4       |
|           | <b>17</b>      | <b>17</b>      | <b>17</b> |

#### MATHEMATICS, STATISTICS, AND COMPUTER SCIENCE

The offerings of the Department of Mathematics, Statistics, and Computer Science are designed to enable a student to

pursue one of 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; and 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 may, 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.

## MAJOR IN MATHEMATICS, STATISTICS, AND COMPUTER SCIENCE

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

|   |       |
|---|-------|
| General Studies Requirements.....                 | 60    |
| (Physics 211 a, b-8 replaces 8 hours GSM)         |       |
| Departmental Core Requirements.....               | 32    |
| Physics 211 a, b.....                             | (4)+4 |
| Mathematics, Statistics and Computer Science 150, |       |
| 260, 272, 321.....                                | 28    |
| Additional Requirements.....                      | 100   |
| SPECIALIZATION 1 (MATHEMATICS)                    |       |
| Mathematics, Statistics and Computer Science      |       |
| 305, 323, 421 a, 450 a, 463 a, 465 a, 480 a,      |       |
| 440.....  | 28    |
| 9 hours from 421 b, 450 b, 463 b, 465 b, 480 b,   |       |
| 441.....  | 9     |

|   |    |
|---|----|
| Electives.....  | 63 |
| (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 421 c, 442, 450 c, 463 c, 465 c.) |    |

### SPECIALIZATION 2 (STATISTICS)

|  |    |
|--|----|
| Mathematics, Statistics and Computer Science |    |
| 305, 480, 481, any 12 hours from 482, 484,   |    |
| 485, 487, and a 27-hour minor.....           | 55 |
| Electives.....                               | 45 |

### SPECIALIZATION 3 (COMPUTER SCIENCE)

|  |    |
|--|----|
| Mathematics, Statistics and Computer Science                               |    |
| 273, 323, 365, 372, 373, 374, 380, 470,                                    |    |
| 472 a, 473, Management Information Systems 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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## Major in Mathematics, Statistics, and Computer Science, Secondary Education Specialization

|  |       |
|--|-------|
| General Studies Requirements.....                                  | 60    |
| Departmental Core Requirements.....                                | 32    |
| Physics 211 a, b.....  | (4)+4 |
| Mathematics, Statistics and Computer Science 150,                  |       |
| 260, 272, 321.....   | 28    |
| Additional Requirements.....                                       | 47    |
| Mathematics, Statistics and Computer Science 420 a, b              |       |
| and 435 a, b or 435 a, c plus 8 hours of mathematics,              |       |
| statistics and computer science electives at the 300               |       |
| level or higher.....   | 20    |
| Minor.....   | 27    |
| Professional Education Requirements (See Secondary Education)..... | 32    |
| Electives.....   | 21    |

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## Minor in Mathematics, Statistics, and Computer Science

Students majoring 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 200 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 472 a and total 27 or more hours. A recommended minor consists of 272, 273, 372, 373, 472 a, 473, and 475 a. NOTE: this minor does not require a knowledge of calculus. A knowledge of COBOL is, however, prerequisite for 475 a. 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.

Students majoring in the Department of Mathematics, Statistics, and Computer Science 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 may provide. Many

problems in energy resource development and conservation are clearly dependent on basic and applied physics concepts.

## MAJOR IN PHYSICS

### Bachelor of Arts Degree, School of Science and Technology

|   |       |
|---|-------|
| General Studies Requirements (See Chapter 4. Waive GSM-8.)  | 60    |
| Requirements for Major in Physics   | 74    |
| Foreign Languages (equivalent of one year)  | (12)  |
| Chemistry 125a, b, 126a, b  | 10    |
| Mathematics 150a, b, 260a, b  | 16    |
| Physics 100, 211a, b, c, 212a, b, 302a, b, 308a, b, 312a, b, 405a, b, plus 2 hours of lab above 400 and 5 hours electives above 302 | 48    |
| Minor   | 3-27  |
| Electives   | 55-31 |
|   | 192   |

### Bachelor of Science Degree, School of Science and Technology

|  |       |
|--|-------|
| General Studies Requirements (See Chapter 4. Waive GSM-8.)   | 60    |
| Requirements for Major in Physics  | 82    |
| Chemistry 125a, b, 126a, b   | 10    |
| Mathematics 150a, b, 260a, b, c, 305   | 24    |
| Physics 100, 211a, b, c, 212a, b, 302a, b, 308a, b, 312a, b, 405a, b, 415a, 418 plus 1 hour elective | 48    |
| Minor  | 3-23  |
| Electives  | 47-27 |
|  | 192   |

### Major In Physical Science, Secondary Education Specialization

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.

### Bachelor of Science Degree

|  |     |
|--|-----|
| General Studies Requirements (See Chapter 4. Waive GSM-8.)                           | 60  |
| Requirements for Major in Physical Science   | 75  |
| GSM 101, 110, 111, 306 and two courses (8 hours) from GSM 283, 300, 301, 302, or 305 | 24  |
| Chemistry 125a, b, c, 126a, b, c   | 15  |
| Physics 206a, b, c   | 15  |
| Science and Technology 402, 403, 415   | 13  |
| Mathematics 150  | 8   |
| Professional Education Courses (See Secondary Education)                             | 37  |
| Electives  | 20  |
|  | 192 |

### Minor in Physics

A minor in physics includes 211, 212, 302, and 5 elective hours above 302 to total 27 hours. Minors are encouraged to consult with the minor adviser concerning the 5 elective hours.



## COURSES

### BIOLOGICAL SCIENCES

**100—4 DIVERSITY OF LIFE: INTRODUCTION TO ORGANISMAL BIOLOGY.** An introduction to the diversity of organisms, Mendelian and population genetics, ecology and evolution. Three hours lecture and two hours laboratory per week. (100 and 101 may be taken in any sequence.)

**101—4 UNITY OF LIFE: INTRODUCTION TO CELL BIOLOGY AND PHYSIOLOGY.** An introduction to cellular organization and metabolism, molecular genetics and the physiology of plants and animals. Three hours lecture and three hours laboratory per week. (100 and 101 may be taken in any sequence.) Prerequisites: high school biology or Biology 100, high school chemistry or Chemistry 105 or concurrent enrollment in Chemistry 125a and 126a.

**200—4 INTRODUCTION TO BIOLOGICAL SCIENCES.** An introduction to the major unifying concepts among the biological sciences, metabolism, physiology, organization, genetics, evolution, and ecology. Students completing 100 and/or 101 may not earn credit for 200. Three hours lecture, three hours laboratory per week. Prerequisites: Chemistry 125 and 126 with a C grade or better; high school biology; adviser approval required.

**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: 101 (or 200), Chemistry 241a.

**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 241c or 305c.

**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: 100 (or 200).

**302c—5 PLANT LIFE.** Structure, nutrition, growth, differentiation and reproduction in the plant kingdom. Three lecture and four laboratory hours per week. Prerequisite: 100 (or 200).

**302d—5 PHYSIOLOGY.** Function and regulation in animals. Four lecture and three laboratory hours per week. Prerequisites: 101 (or 200), 302a, Chemistry 125a, b.

**303a—5 GENETICS.** Mechanisms of inheritance, gene action, and genetic diversity. Four lecture and three laboratory hours per week. Prerequisites: 100 (or 200), Chemistry 125a.

**303b—3 EVOLUTION.** Evolutionary change including population genetics, ecological factors, selection, and speciation. Three lecture hours per week. Prerequisite: 100 (or 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. Prerequisites: 101 (or 200), Chemistry 125a.

**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.

**307—4 ANIMAL HISTOLOGY.** Principles of the structure and function of animal tissues and the techniques used to study them. Three lectures and three laboratory hours per week. Prerequisites: either 100, 101, or 200; Chemistry 125a, b.

**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.

**314—5 COMPARATIVE ANATOMY OF VERTEBRATES.** An evolutionary approach to comparative form, function, and development of vertebrate organisms with emphasis on both fossil and living forms. Two lectures and three laboratories per week. Prerequisite: 302a.

**315a—3 EMBRYOLOGY.** Morphogenesis and differentiation in animals with emphasis on vertebrates. Three lecture hours per week. Prerequisites: 101 (or 200), 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 241a,b.

**402a,b—6 (3,3) MOLECULAR BIOLOGY LABORATORY.** A two-quarter laboratory course in molecular biology, including experiments in biochemistry, cell biology, and microbial physiology. Two three-hour labs and one discussion hour per week. Prerequisites: 301a, 301e, 400a, 404a, 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 inclusion 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.

**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: 325.

**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.

**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.

**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.

**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.

**443a—3 ENVIRONMENTAL PHYSIOLOGY.** Physiological ecology of vertebrates with emphasis on physiological effects of environmental stress; e.g., oxygen deprivation, temperature, salinity, and industrial pollution. Three lectures per week. Prerequisites: 302d, 441 or consent of instructor.

**443b—1 LABORATORY IN ENVIRONMENTAL PHYSIOLOGY.** Experiments dealing with physiological responses of animals to environmental variables. Prerequisite: 443a or concurrent enrollment.

**444a—3 INTEGRATIVE PHYSIOLOGY.** Mechanisms of response and integration with emphasis on the role of the nervous system. Three lectures per week. Prerequisites: 301a, 302a, and organic chemistry (or concurrent registration).

**444b—1 LABORATORY IN INTEGRATIVE PHYSIOLOGY.** Experiments dealing with integrative role of the nervous system. Prerequisite: 444a or concurrent enrollment.

**445—3 ENDOCRINOLOGY.** A survey of endocrine organs in chordates, higher invertebrates and plants with major emphasis on roles of endocrine glands and their hormonal secretions in integration, control systems and metabolism. Prerequisite: 301a or consent of instructor.

**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 MICROTÉCHNIQUE.** Principles and techniques of preparing plant tissues for microscopic study. Four hours of laboratory per week. Prerequisite: 302c, 455, or consent of instructor.

**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.

**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 in high school chemistry. May not be applied to a major or minor in chemistry. Three lecture hours and one problem session hour per week. Prerequisite: one year high school algebra or Mathematics 101.

**110—12 (4,4,4) GENERAL, ORGANIC, AND BIOLOGICAL CHEMISTRY.** A study of fundamental chemical principles for other than chemistry majors. (a) General and Organic Chemistry. (b) Organic Chemistry. (c) Biological Chemistry. Three lecture hours, one three-hour laboratory per week. Must be taken in sequence.

**125—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.

**241—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: 125.

**245—4 (2,2) ORGANIC CHEMISTRY LABORATORY.** Introduction to organic synthesis and the techniques for determining physical and chemical properties of organic systems. One four-hour laboratory per week. Prerequisite for a: 241a; for b: 245a.

**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: 125.

**335—5 QUANTITATIVE CHEMICAL ANALYSIS.** Theory and methods for quantitative analysis, including laboratory experience in gravimetric, volumetric and fundamental instrumental techniques. Three one-hour lectures and two three-hour laboratories per week. Prerequisites: 125c, 126c.

**345—3 IDENTIFICATION OF ORGANIC COMPOUNDS.** Theory and practice of identifying organic compounds based on determination of physical, chemical and spectroscopic determinations. One lecture hour and two three-hour laboratories per week. Prerequisites: 241c and 245b.

**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) 125, 12 hours physics, one year calculus; (b) 361a; (c) 361b.

**365—4 (2,2) PHYSICAL CHEMISTRY LABORATORY.** One lecture hour and one four-hour laboratory per week. Prerequisites: (a) 245a, 361a; (b) 361b.

**396—2 INTRODUCTION TO RESEARCH.** Investigation of relatively simple research problems in chemistry under the direction of a staff member. May be repeated for maximum of 6 hours credit. Prerequisites: 3.0+ average in chemistry courses, prior arrangement with a staff member, consent of chairperson.

**411—4 PHYSICAL INORGANIC CHEMISTRY.** Modern inorganic chemistry including symmetry, atomic structure, and chemical bonds, and stereochemistry of complex ions and metal chelates. Four lecture hours per week. Prerequisite: concurrent enrollment in 361b or c.

**419—2 to 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. Primarily optical instrumentation. Prerequisite: 361b.

**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: 241 and either 361b or equivalent.

**444—3 ORGANIC REACTIONS.** An intermediate course with emphasis on mono-functional compounds. Additional topics, not included in elementary courses. Three lecture hours per week. Prerequisite: 241.

**449—2 to 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) 241; (b) 451a; (c) 241 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 preprofessional students. Suggested for B.S. in Education degree. Traditional and biological aspects of physical chemistry without the requirement of calculus. Four lecture, three laboratory hours per week. Prerequisites: 125, 241, or 305, one year of physics, consent of instructor.

**464—4 SPECTROSCOPY AND MOLECULAR STRUCTURE.** Principles of spectroscopy and a systematic survey of the different types of spectroscopy, with emphasis on the molecular information to be obtained from each type. Prerequisite: Chemistry 361 or equivalent.

**471—4 PRINCIPLES OF TOXICOLOGY.** The injurious effects of chemicals that enter a biologic species and factors which influence the effects. Detection of hazardous conditions and treatment of effects. Prerequisite: consent of instructor.

**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: 125, 241, or 305, 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 chairperson.

## CONSTRUCTION

**101—1 INTRODUCTION TO CONSTRUCTION.** An introduction to the construction industry, its history and its role in today's society.

**102—4 GRAPHICAL COMPUTER TECHNIQUES FOR CONSTRUCTION.** An introduction to graphical and computer techniques specifically applied to the construction industry. Introduction to computer programming and use of the computer in planning, scheduling and data processing. Graphical techniques used for resource scheduling, records and project productivity. Prerequisites: 101, Engineering 101.

**201—4 CONSTRUCTION MATERIALS AND METHODS I.** An introduction to the primary types of materials used in construction including asphalt, plastics, portland cement, steel, wood and glass. Examination of their molecular structure and factors affecting strength. Laboratory included. Prerequisite: Chemistry 110a.

**202—4 CONSTRUCTION MATERIALS AND METHODS II.** The methods and equipment for handling and storage of materials. Construction procedures used with these materials. Prerequisite: 201.

**264—4 CONSTRUCTION LAYOUT AND MEASUREMENTS.** Surveying techniques for construction ground control and facility layout. Both vertical and horizontal controls. Prerequisite: Engineering 263.

**301—4 SOILS.** Introduction to the geological distribution, physical properties and behavior of soils. Classification and testing of soils. Laboratory included. Prerequisite: Engineering 270 or concurrent enrollment.



**302—4 WATER RESOURCES.** Introduction to basic hydraulic and hydrology concepts. Determination of flow and drainage areas. Effects of water on construction procedures. Utilization of maps and air photos in hydrology studies. Laboratory included. Prerequisites: 102, 301.

**321—3 ELECTRICAL SYSTEMS.** Use of basic electrical theory for 60 cycle AC systems. Electrical systems and distribution for facilities. Electrical systems and distribution during construction including safety considerations, wiring and energy consumption. Prerequisite: Physics 211.

**331—3 HVAC SYSTEMS.** Introduction to heating, air-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 steel elements including familiarization with various design codes. Prerequisite: Engineering 270.

**352—4 INTRODUCTION TO STEEL STRUCTURES.** Elementary analysis of statically determinate structures. Design considerations for structural steel elements including familiarization with various design codes. Prerequisite: Engineering 270.

**375—2 (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

**101a,b—5 (2,3) ENGINEERING GRAPHICS.** (a) Principles of Graphic Communications. Sketching for shape description, pictorial projection, multiviews, various types of sectional views, auxiliary views, geometric construction. The student must supply his or her own drafting instruments. (b)

Shop processes, dimensioning, axonometric drawing, tolerances, fasteners, and the complete detail and assembly drawing of a jig or fixture for an assigned problem.

**110—0 FRESHMAN SEMINAR.** Introduction to engineering; description of major areas of engineering activity; discussion of available curricula at this University; procedures of the University and the Engineering Department. Team-taught by members of Department of Engineering with invited lecturers from industry and other departments, Pass-No Credit grading only.

**200—4 INTRODUCTION TO ELECTRICAL CIRCUITS.** Steady state dc and ac circuit analysis. Ohm's Law, Kirchhoff's Laws, Network Theorems (Thevenin, Norton, Superposition and Maximum Power Transfer). Loop and Nodal Analysis. Steady state analysis of circuits with sinusoidal excitation using phasor domain concepts. Power, power factor and rms value. Single phase and three phase circuits. Prerequisites: Physics 211, MSCS 172, MSCS 305 or concurrent enrollment.

**230—3 ENGINEERING GEOLOGY.** Geological principles governing the solution of civil engineering problems which are connected with the use and occurrence of rocks, minerals, soils, and water in the design and construction of engineering works. Prerequisite: Pre-Engineering.

**260a,b—8 (4,4) ENGINEERING MECHANICS.** (a) Static equilibrium conditions for external and internal force and moment systems. First and second moments of lines, areas, and volumes. (b) Kinematics and kinetics of particles and rigid bodies. Newton's laws, momentum, and energy methods. Vector algebra and calculus used throughout. Prerequisites for a: Physics 211a; for b: 260a.

**263—3 SURVEYING I.** Fundamentals of plane surveying, use of surveying instruments, basic field operations, and computations. Laboratory included. Prerequisites: Pre-Engineering.

**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 ELECTRICAL ENGINEERING LABORATORY.** Laboratory experiments which exemplify the material covered in junior electronics engineering courses. Characteristics of active devices and their uses, laboratory procedures, and measurement techniques. Prerequisites: For a: 326 or concurrent enrollment; for b: 301a, 327 or concurrent enrollment; for c: 301b.

**303a,b,c—3 (1,1,1) INDUSTRIAL ENGINEERING LABORATORY.** (a) Testing of mechanical properties of materials, harness testing, tensile and compression testing, notch toughness evaluation, torsion and bending. Introduction to metrology and analysis of measurement errors. Introduction to mechanic tools, lathe, milling and drilling machines. (b) Data Analysis, histograms, mean, mode, variance calculations, curve fitting, random sampling, central limit theorem, regression analysis, analysis of variance, quality control by attributes and by variables, MILSTD 105-D, use of SPSS and BMD programs. (c) Introduction to work analysis, operations and flow process charts, man-machine charts, flow diagram and plant layout, stop watch study, performance rating, synthetic time data, work sampling, value analysis and cost estimation, human factors engineering. Prerequisites: (a) concurrent enrollment in 332; (b) concurrent enrollment in 410; (c) 471 or concurrent enrollment.

**314—4 SOIL MECHANICS.** Study of the theoretical and empirical principles of soil mechanics. Sampling, classification, shear strength, stresses and compressibility. Basic theories and assumptions for estimating settlement, bearing capacity, lateral earth pressures and slope stability. Laboratory included. Prerequisites: 230, 270, 316.

**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: Pre-Engineering.

**319—4 INTRODUCTION TO SYSTEMS ENGINEERING.** Introduction to network analysis linear programming, critical path scheduling, decision analysis, and linear regression, with emphasis on application in the areas of construction, environmental, structural and transportation engineering. Prerequisites: Pre-engineering.

**320—3 ELECTRONIC CIRCUITS.** Active networks including physics

of tubes and transistors, biasing of active devices, simple amplifier circuits, R-C coupled amplifiers, basic oscillators, feedback circuits. Not for electronic engineering concentrations. Prerequisite: Pre-engineering.

**321-1 ELECTRONIC CIRCUITS LABORATORY.** Laboratory study of active networks illustrating principles discussed in 320. Prerequisites: 320 or 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: Pre-engineering.

**323-1 ELECTRICAL MACHINES AND INSTRUMENTATION LABORATORY.** Laboratory experiments dealing with electrical machines and control illustrating principles discussed in 322. Prerequisite: 322 or concurrent enrollment.

**326-3 DIGITAL ELECTRONIC CIRCUITS.** Digital circuits and systems, using BJTs and FETs. Brief introduction to semi-conductor device (diode and transistor) characteristics; AND, OR, NOT NAND, NOR gates; various types of logic; combinational digital systems (binary adders, ROM, etc.); sequential digital systems (S-R, J-K, R and D-type flip-flops). Prerequisites: Pre-engineering; 301a or concurrent enrollment.

**327-3 LINEAR ELECTRONIC CIRCUITS.** Analog diode circuits (clipping, clamping, rectifying, voltage-regulating); low-frequency amplifiers in common-emitter, common-collector configurations of BJTs and common-source, common-drain configurations of FETs; small-signal models feedback amplifiers, frequency response of amplifiers; multiple-stage amplifiers (operational amplifiers, differential 80 amplifiers, etc.). Prerequisites: 326, 301b or concurrent enrollment.

**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 of transmission lines transient response of lossy lines. Must be taken in sequence. Prerequisites: Pre-engineering.

**332-4 MANUFACTURING PROCESSES AND MATERIALS.** Introduction to manufacturing processes such as casting, powder metallurgy, metal forming, cold and hot working of metals, properties of engineering materials, selection of materials for manufacturing, introductory metallurgy including heat treatment, alloy irons and steels, welding, brazing, soldering and related welding processes. Prerequisite: Pre-engineering.

**340-8 (4,4) STRUCTURAL ANALYSIS I, II.** (a) Analysis of statically determinate structures; influence lines and loading criteria for beams, trusses, and framed structures subjected to fixed and moving loads; computation of deformations by energy and geometric techniques; flexibility method of indeterminate structural analysis. (b) Classical stiffness methods of indeterminate structural analysis; slope-deflection and moment-distribution; influence lines for indeterminate structures; introduction to matrix stiffness methods. Must be taken in sequence. Prerequisites: Pre-engineering.

**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.

**348-4 INTRODUCTION TO INDUSTRIAL ENGINEERING.** Introduction to industrial engineering, role of IE in manufacturing as well as retail industries, scientific management, plant location, site selection, plant layout, time and motion study methods improvement, resource allocation, transportation and assignment models, break-even analysis, time-value of money, productivity, wage-incentive systems, forecasting, resource scheduling using network methods, job sequencing. Prerequisite: Pre-engineering.

**350-4 CIRCUIT ANALYSIS.** Frequency response to sinusoidal and complex signal excitations. Transformer and mutual inductance concepts. One port, two port, and n-port parameters. Transfer function concepts. Transient analysis, zero-state and zero input concepts. Laplace Transforms and their application to solving linear network problems. Prerequisite: Pre-engineering.

**351-4 LINEAR SYSTEMS AND ANALYSIS I.** A study of the methods available for analysis of the input-output properties of linear systems. The convolution integral. Frequency domain analysis of continuous time systems. Time and frequency domain analysis of discrete time systems. Prerequisites: 350, MSCS 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.

**363-4 SURVEYING II.** Errors and calibration concepts, route surveying, triangulation, building construction surveying and introduction to photogrammetry. Laboratory included. Prerequisite: 263.

**370-4 ENGINEERING MATERIALS.** Quantitative and qualitative behavior of materials as related to the physical and chemical structure of solids. Laboratory determination of mechanical properties of materials. Prerequisite: Pre-engineering.

**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.

**380-4 ENVIRONMENTAL ENGINEERING.** Water Supply and Treatment. Planning and design of water supplies, distribution systems, and treatment systems. Prerequisite: 316.

**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. NOT FOR GRADUATE CREDIT. 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,b.

**406-4 DIGITAL SIGNAL PROCESSING.** Discrete-time signals and systems; z-transforms; discrete fourier transform; flow graphs and filter implementation; FIR IIR filter design; introduction to FFT. Prerequisite: 353 or equivalent.

**410-4 DESIGN OF QUALITY CONTROL SYSTEMS.** The application of statistical methods to quality control. Emphasis on the integration of control charts, sampling plans and other techniques into the design of quality control systems. Prerequisite: Pre-engineering, MSCS 380.

**415-4 FOUNDATION ENGINEERING.** Application of the fundamental principles of soil mechanics in the design and analysis of foundations (shallow and deep), retaining walls, cofferdams, pavements and earth embankments. Estimates of bearing capacity, settlement and slope stability values. NOT FOR GRADUATE CREDIT. Prerequisite: 314.

**419-3 TRANSPORT PHENOMENA I.** Steady and unsteady state conduction heat transfer; Introduction to radiation and convection heat transfer; Potential flow; Boundary layer flow. Prerequisites: 270, 300.

**420-4 TRANSPORT PHENOMENA II.** Radiation and convection heat transfer; Principles of interphase mass transfer; Flow of compressible fluids; Turbulent flow. Prerequisite: 419.

**421-1 FLUID DYNAMICS LABORATORY.** Laboratory experiments to study the flow of fluids in conduits and in open channels. Prerequisite: 316.

**425-4 ELECTRON DEVICES.** Fabrication methods, characteristics, and analysis of selected solid state devices (BJTs, FETs Tunnel Diodes, Optoelectronic Devices, CCDs, etc.). Prerequisite: 402.

**426-4 INTEGRATED CIRCUITS APPLICATIONS.** The study of applications of analog and digital integrated circuits. Consideration of the building blocks of analog integrated circuits. The characteristics of digital logic families such as noise, speed, power requirements, logic levels and loading rules. Prerequisite: 327 or equivalent.

**432-4 ADVANCED MANUFACTURING ENGINEERING.** Metal cutting theory. Machining processes such as turning, milling, boring, drilling, broaching. Mass production techniques. Design of jigs and fixtures, computer aided design (CAD), computer aided manufacturing (CAM) N-C

machines, use of group technology in a manufacturing facility. NOT FOR GRADUATE CREDIT. Prerequisite: 332.

**435—4 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. NOT FOR GRADUATE CREDIT. 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. NOT FOR GRADUATE CREDIT. 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. NOT FOR GRADUATE CREDIT. Prerequisite: senior standing or consent of chairperson.

**444—3 ELECTRICAL ENGINEERING DESIGN.** Elements of Design in Electrical Engineering. The student will be required to complete several "paper designs" selected from the various areas of Electrical Engineering. The final examination will consist of the design of a project selected by the student with approval of the Engineering Faculty. This design will be used as the basis of the project in 445. NOT FOR GRADUATE CREDIT. Prerequisite: Pre-engineering and senior standing.

**445—1 ELECTRICAL ENGINEERING DESIGN LABORATORY.** The design generated for final examination in 444 is constructed and tested. Student works in consultation with one of the members of the faculty. For certain projects, computer simulation may be used to supplement or even replace construction and testing of the design. NOT FOR GRADUATE CREDIT. Prerequisite: 444.

**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.

**458—4 OPERATIONS RESEARCH—DETERMINISTIC MODELS.** (Same as Mathematics 440.) Introduction to linear programming, problem formulation, simplex algorithm, transportation and assignment problems, duality theory and its economic interpretation, application of L.P. models to industrial problems, sensitivity, dynamic programming. Prerequisite: Pre-engineering.

**460—4 OPERATIONS RESEARCH—STOCHASTIC MODELS.** (Same as Mathematics 441.) Probabilistic models, elementary queueing theory with single or multiple server systems, use of queues in the facility designs, elementary decisions theory, Markov processes and decision making. Prerequisites: Pre-engineering, MSCS 380 or 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 materials are assigned. Prerequisites: 348, MSCS 380.

**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.

**474—4 OPERATIONS RESEARCH—SIMULATION.** (Same as Mathematics 442.) Inventory theory, simulation models, generation of random variables, discrete event simulation using GPSS, continuous event simulation using CSMP. Prerequisites: Pre-engineering, MSCS 380 or 480a.

**475—4 URBAN TRANSPORTATION.** Introduction to systems engineering, deterministic models (linear programming, transportation networks, and critical path scheduling). Trip generation, trip distribution, traffic assignment procedures, traffic analysis and traffic engineering procedures as utilized in urban transportation planning. Prerequisite: 376.

**476—4 HUMAN FACTORS ENGINEERING.** Study of human factors engineering and their impact in the design of product, work space arrangement. Analysis of man-machine system to increase the productivity and meet the physiological and psychological needs of those involved in the system. Prerequisite: 471.

**477—3 CONSTRUCTION ENGINEERING.** Application of engineering principles to modern methods of construction, construction planning, scheduling by critical path method, contract documents, economics, estimating and bidding, construction materials. NOT FOR GRADUATE CREDIT. Prerequisites: 314, Economics 341.

**478—4 TRANSPORTATION ENGINEERING—FACILITIES DESIGN.** Design criteria and methods for airfields, highways, railroads and waterways. Emphasis on the geometrical design of the facility and the structural design of the load carrying element. Human factors are discussed considering their effects on physical design criteria. Prerequisites: 376, 314 and 363 or equivalent.

**479—4 FACILITY LAYOUT AND PLANNING.** Emphasis on integrating available resources to achieve an efficient production facility. Problems of plant location and material handling are also stressed. Prerequisite: 471.

**480—4 ENVIRONMENTAL ENGINEERING UNIT OPERATIONS.** Selected topics from analytical and physical chemistry as applied to the examination and treatment of water and wastewater. Principles of unit operations. Basic principles and theory of chemical reactors. Supplemental laboratory exercises and demonstrations of laboratory techniques. Prerequisite: 380.

**481—4 FUNCTIONAL ANALYSIS OF DIGITAL EQUIPMENT.** Logic circuits including standard gates, function realization and minimization, and log 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 purposes, stored program digital processors. Machine instructions and information format required to transfer data of specific I/O devices, execute memory and register transfers, perform logical and mathematical operations, employ memory protect and interrupts and sense and display errors. Machine and source languages, assemblers, translators and compilers, loaders and system operation of a typical processor. Projects with interpretive and interactive programming, debugging, diagnostics and I/O utility programs for actual processors. Prerequisite: 481.

**485—4 COMMUNICATION SYSTEM.** Elements of communications systems. Filtering and signal-to-noise ratios. Baseband communication systems. Analog modulation, including linear, exponential and pulse modulation. Quantizing and digital modulation. Frequency and time multiplexing. Prerequisites: 351, 352.

**488—4 ADVANCED MECHANICS OF DEFORMABLE BODIES.** Introduction to energy principles and their application. Problems in plane stress and strain. Beams on elastic foundations. Theories of failure. Introduction to plates and shells. Prerequisite: 340b or consent of instructor.

**489—8 (4,4) ENVIRONMENTAL ENGINEERING DESIGN I, II.** Water and wastewater treatment plant design. a) Design of sewers, sedimentation systems, filtration systems, and chlorination systems. b) Design of biological wastewater treatment systems: activated sludge, stabilization lagoons, anaerobic digestion, and trickling filters. Prerequisite: 480.

**490—4 MICROWAVE 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. Prerequisite: 330b.

## 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.

## 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. Pass/No Credit 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: 6 semesters of high school mathematics and an ACT score of 23 or higher or GSM 144 with a grade of C or higher.

**150-8 (4,4) ELEMENTARY CALCULUS AND ANALYTIC GEOMETRY.** Elementary differential and integral calculus with analytic geometry and applications. Includes the definite integral and differentiation of transcendental functions. Must be taken in sequence. Prerequisites: 7 semesters of high school mathematics including a semester of trigonometry and an ACT score of 23 or higher; or 125 with a grade of C or higher.

**172-2 INTRODUCTION TO FORTRAN IV.** This course provides an introduction to digital computer programming with the FORTRAN IV programming language. The writing of efficient and well-organized computer programs is stressed, with emphasis on scientific computing applications. Specific features of FORTRAN IV covered include: arithmetic statements, arrays and subscripted variables, functions and subprograms. Both batch and interactive FORTRAN systems are utilized, and the use of available system subroutine packages is discussed. Prerequisite: 150b or concurrent enrollment in 150b.

**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.

**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.** 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.

**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—8 (4,4) INTRODUCTION TO REAL ANALYSIS.** (a) Real numbers, topology of  $\mathbb{R}^n$ , continuity and differentiability of functions from  $\mathbb{R}^m$  into  $\mathbb{R}^n$ , (b) implicit function theorem, characterization of Riemann integrable function, uniform convergence. Must be taken in sequence. Prerequisites: 260c, 321.

**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. Language 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, structures 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. Prerequisites: 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.

**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: 480b or concurrent enrollment.

**482—8 (4,4) LINEAR STATISTICAL MODELS FOR APPLICATION.** 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 plans, analysis of data and presentation of results. Prerequisite: 480 or consent of instructor.

**484—4 RELIABILITY THEORY AND PRACTICE.** Probability models and statistical techniques useful in the study of reliability of products and their design, development, and production; special attention to data analysis for process controls. Prerequisite: 380 or 480 or consent of instructor.

**485—4 AN INTRODUCTION TO STOCHASTIC PROCESSES.** Applications of Markov chains, Markov processes with discrete states in continuous time, and examples of Markov processes in continuous time with continuous state space. Prerequisite: 480b or consent of instructor.

**487—4 NONPARAMETRIC STATISTICS.** Statistical inference using distribution free methods. Randomization, the sign test, Wilcoxon and Mann-Whitney test, 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 advisor.

## 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 a total of 3 hours. Prerequisite: physics major or consent of undergraduate physics adviser.

**206—15 (5,5,5) COLLEGE PHYSICS.** Designed to meet premedical requirements and the needs of students majoring in the biological sciences. Laboratory. Must be taken in sequence. Prerequisite: GSM 144.

**211—12 (4,4,4) UNIVERSITY PHYSICS.** (a) Kinematics, dynamics, conservation of energy, linear momentum, angular momentum. (b) Oscillations, gravitation, fluids, wave theory, sound, electrostatics, potential. (c) Circuits, magnetic fields, electromagnetic waves, geometrical and physical optics. Must be taken in sequence. Prerequisite: (a) MSCS 150b or concurrent enrollment; (b) 211a; (c) 211a,b.

**212—2 (1,1) INTRODUCTORY PHYSICS LABORATORY.** (a) Experiments in classical mechanics emphasizing physical measurements, data analysis and presentation, as well as simple error analysis. Measurements of velocities, acceleration, acceleration due to gravity, moments, gravitational, kinetic and heat energy, and simple harmonic motion. (b) A continuation of experiments in classical mechanics and classical electromagnetism. The latter includes electrical measurements and some simple circuit properties. One or two experiments in geometrical and/or physical optics. Prerequisites: (a) 211a, concurrent enrollment in 211b; (b) 211b, 212a, concurrent enrollment in 211c.

**302—8 (4,4) MODERN PHYSICS.** (a) Thermodynamics, special relativity, photoelectric effect, Planck's radiation theory, Compton effect. (b) Matter waves, the uncertainty principle, the Schrodinger solution of a confined particle, the hydrogen atom, atomic theory, nuclear and solid state physics. Must be taken in sequence. Prerequisites: (a) 211, MSCS 260a; (b) 302a.

**304—4 THERMODYNAMICS AND KINETIC THEORY.** A macroscopic study of the laws of thermodynamics. Thermodynamic potentials, Maxwell's relations and applications of thermodynamics to the study of the properties of matter including phase equilibria. Introduction to irreversible processes and kinetic theory. Prerequisite: 302a.

**308—8 (4,4) INTRODUCTION TO CLASSICAL MECHANICS.** Statics of a particle, of a rigid body, and of a flexible string; the principles of virtual work, motion of a particle in a uniform and in a central force field, simple harmonic motion, motion of a system of particles, rigid body motion in a plane; noninertial reference frames; generalized coordinates, Lagrange's and Hamilton's equations of motion; vibrating systems, normal coordinates, and wave motion. Prerequisites: (a) 211a,b, MSCS 260a; (b) 308a.

**310—4 PHYSICAL OPTICS.** Theory of interference and interferometers. Fresnel and Fraunhofer diffraction, Fourier transform theory of diffraction; velocity of light, polarization, electromagnetic theory of light applied to reflection and refraction in isotropic media and 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, MSCS 260a.

**311—1 OPTICS LABORATORY.** Advanced experiments in geometrical and physical optics. Two laboratory hours per week. Prerequisite: 310 or concurrent enrollment.

**312—2 (1,1) INTERMEDIATE PHYSICS LABORATORY.** (a) A continuation of experiments in classical physics including physical and geometrical optics, thermodynamics and an introduction to experiments in modern physics. (b) A continuation of experiments in modern physics including the photoelectric effect, measurement of  $e/m$ , Millikan oil drop experiment, half-life measurements of radioactive isotopes and the Frank-Hertz experiment. Prerequisites: (a) 211c, 212b, concurrent enrollment in 302a; (b) 302a, 312a, concurrent enrollment in 302b.

**320—4 SPECIAL RELATIVITY.** An introduction to Einstein's Theory of Special Relativity. Develops the notion of space and time and treats relativistic kinematics, dynamics, and electromagnetism. Four lecture hours per week. Prerequisites: 211, MSCS 260a.

**375—1 SEMINAR.** Topics selected from a wide range of physical theories and applications. One hour per quarter with a maximum of 3 total hours on a pass/no credit basis only. Prerequisite: consent of instructor.

**390—1 to 15 PHYSICS HONOR PROJECT.** Honors work in physics mostly in the junior and/or senior years. Entrance by invitation of any member of the Physics Department. Prerequisite: 405a.

**404—4 INTRODUCTION TO STATISTICAL MECHANICS.** Introduction to phase space and ensemble theory. Statistical interpretation of thermodynamic processes. Maxwell-Boltzmann, Bose-Einstein, Fermi-Dirac statistics, and applications. Systems of interacting particles. Prerequisites: 302, 304 and 308.

**405—8 (4,4) INTRODUCTION TO ELECTROMAGNETIC FIELD THEORY.** Vector treatment of the theory; electrostatics in vacuum and in matter, steady currents, magnetism, magnetic materials, and electromagnetic radiation. Must be taken in sequence. Prerequisites: (a) 211c, MSCS 260a; (b) 405a.

**415a—4 WAVE MECHANICS.** Cites the evidence for a need of new "quantum theory." Considers the Schrodinger equation, and the Born interpretation of the wave function. Develops the theory of quantum harmonic oscillators, the rigid rotator and hydrogen-like atoms. Develops perturbation theory and a description of radiation from atomic systems. Prerequisites: 302b, MSCS 305.

**415b—4 ATOMIC PHYSICS.** Exploits the theoretical considerations developed in 415a by considering their application to the study of atomic and molecular systems. Prerequisite: 415a.

**415c—4 NUCLEAR PHYSICS.** A systematic discussion of the properties of the atomic nucleus. Examples of the application of wave mechanics to the study of the nucleus. A consideration of nuclear forces, subnuclear particles, and nuclear models. Prerequisite: 415a.

**418—2 ADVANCED PHYSICS LABORATORY.** An advanced laboratory course to include experiments chosen from nuclear spectroscopy, semiconductor physics, x-ray diffraction, optical spectroscopy, materials preparation techniques, nuclear magnetic resonance, and work with lasers and optical detectors. May be repeated to total of 4 hours credit. Prerequisites: 302b, 312b.

**419—4 INTRODUCTION TO THEORETICAL PHYSICS.** Discussion and application of a variety of mathematical techniques to problems selected from the area of theoretical physics. (a) Treatment of solutions of the

homogeneous partial differential equations of theoretical physics in the presence of boundaries. Prerequisites: 302, MSCS 305.

**420—2 to 4 SPECIAL EXPERIMENTAL PROJECTS.** Each student is assigned to a definite investigative topic. Adapted to advanced undergraduate students. May be repeated to total of 6 hours. Prerequisites: 308, 405.

**421—2 to 4 SPECIAL THEORETICAL PROJECTS.** Assignment to specific theoretical topics. Adapted to advanced undergraduate students. May be repeated to total of 6 hours. Prerequisites: 308, 405.

**450—4 INTRODUCTION TO SOLID-STATE PHYSICS.** Crystal structure. Crystal binding. Lattice vibrations and thermal properties of crystals. Electronic states and energy band theory. Other selected topics. Prerequisite: 415.

## SCIENCE AND TECHNOLOGY

**401—3 to 6 CLASSICAL MECHANICS.** A systematic treatment of mechanics which assumes only a modest background in algebra. Emphasis on those concepts which historically were defined for mechanical systems but which have proven important in all areas of physics. Primarily for teachers of the physical sciences. Subject matter is related to texts and material available in most secondary schools. May be repeated to maximum of 10 hours.

**403—3 to 6 EXPERIMENTS AND TECHNIQUES OF PHYSICS.** Conducting of experiments and consideration of equipment for teaching physics. Lectures on experimental techniques. May be repeated to 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—6 (1,1,1,1,1,1) TOPICS IN CHEMISTRY.** Short courses focusing on a particular topic: (a) Origins of Elements, Molecules, and the Earth's Atmosphere; (b) Hazardous Substances; (c) Acid-Base Theories; (d) Chemistry of Air Pollution; (e) Problem-Solving in the Physical Sciences; (f) Seminar for Chemistry Teachers. No more than 1 hour of credit may be received in each of the courses. Prerequisite: consent of chairperson of Department of Chemistry.

**441—3 MODERN ORGANIC CHEMISTRY.** Stereochemistry, spectroscopy, mechanisms, and review of fundamental concepts (hybridization, functional groups, nomenclature). Laboratory; use of spectroscopy and chromatography to characterize compounds prepared by students. Intended primarily for continuing education courses. Prerequisite: consent of chairperson of Department of Chemistry.

**480—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 chairperson.

## SCHOOL OF SCIENCE AND TECHNOLOGY FACULTY

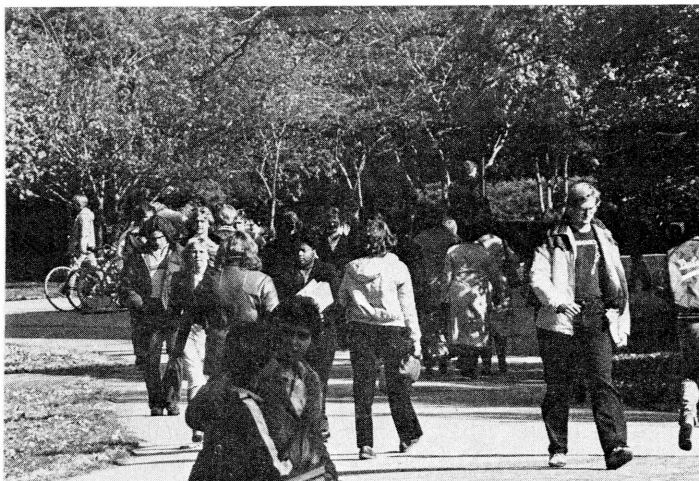
Hadi H. Aly, Ph.D., Professor of Physics  
 Thomas P. Anderson, Ph.D., Dean of School and Professor of Engineering  
 George Arnold, D.Sc., Associate Professor of Engineering  
 Mildred Austin, MT (ASCP), Adjunct Instructor of Medical Technology, Burnham City Hospital, Champaign, IL  
 Ralph W. Axtell, Ph.D., Professor of Biological Sciences  
 Annette Baich, Ph.D., Professor of Biological Sciences  
 Ralph L. Bain, Ph.D., Chairperson and Professor of Chemistry  
 Marinus P. Bardolph, Ph.D., Professor of Chemistry  
 John D. Bauer, M.D., Adjunct Professor of Medical Technology, DePaul Hospital, St. Louis, MO



Mary Kay Beiermann, B.S., Adjunct Instructor of Medical Technology, St. John's Mercy Hospital, St. Louis, MO  
 Harlan H. Bengtson, Ph.D., Associate Professor of Engineering  
 William C. Bennewitz, Ph.D., Professor of Mathematics and Computer Science  
 Myron Bishop, M.S., Emeritus Associate Professor of Engineering  
 Stan J. Bobowski, M.D., Adjunct Professor of Medical Technology, Burnham City Hospital, Champaign, IL  
 Richard R. Boedeker, Ph.D., Professor of Physics  
 Raghupathy Bollini, Ph.D., Associate Professor of Engineering  
 Thomas D. Bouman, Ph.D., Professor of Chemistry  
 Arthur J. Braundmeier, Ph.D., Professor of Physics  
 Harold E. Broadbooks, Ph.D., Professor of Biological Sciences  
 Julius Brown, D.Sc., Professor of Engineering  
 Richard B. Brugam, Ph.D., Associate Professor of Biological Sciences  
 James O. Bryant, Jr., Ph.D., Adjunct Professor of Engineering  
 Norma Buckles, M.T. (ASCP), Adjunct Instructor in Medical Technology, St. Mary's Hospital, Decatur, IL  
 Hau-cheung Chow, Ph.D., Assistant Professor of Physics  
 Kermit G. Clemans, Ph.D., Professor of Mathematics and Statistics  
 Myra D. Coggeshall, M.T. (ASCP), Adjunct Instructor of Medical Technology, St. Elizabeth's Hospital, Belleville, IL  
 Daniel N. Cote, M.S.C.E., Associate Professor of Engineering  
 Henry D. Drew, Ph.D., Associate 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  
 F. Henry Firsching, Ph.D., Professor of Chemistry  
 Arthur O. Garder, Ph.D., Professor of Mathematics  
 Mary L. Gavin, B.S., Adjunct Instructor of Medical Technology, DePaul Hospital, St. Louis, MO  
 Arjun Godhwani, Ph.D., Associate Professor of Engineering  
 Paul E. Goldenbaum, Ph.D., Associate Professor of Biological Sciences  
 Ray C. Gwillim, M.S., Emeritus Professor of Mathematics  
 M. A. Hakeem, Ph.D., 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 and Computer Science  
 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  
 Jane Hoegl, MT(ASCP), Adjunct Instructor of Medical Technology, St. John's Hospital, Springfield, IL  
 Lyman S. Holden, Ph.D., Associate Professor of Mathematics  
 William E. Hord, Ph.D., Chairperson and Professor of Engineering  
 Joel D. Isaacson, Ph.D., Professor of Computer Science  
 Emil F. Jason, Ph.D., Professor of Chemistry  
 Leonard C. Jones, Ph.D., Professor of Engineering  
 Ik-Ju Kang, Ph.D., Chairperson and Professor of Physics  
 Richard C. Keating, Ph.D., Professor of Biological Sciences  
 Panos Kokoropoulos, Ph.D., Associate Professor of Engineering  
 Alfred Korn, D.Sc., Professor of Engineering

Frank B. Kulfinski, Ph.D., Professor of Biological Sciences  
 Marion L. Kumler, Ph.D., Professor of Biological Sciences  
 Rudolf O.E.W. Kurth, Ph.D., Professor Emeritus of Mathematics  
 Earl E. Lazerson, M.A., President and Professor of Mathematics  
 Michael R. Levy, Ph.D., Professor of Biological Sciences  
 Andrew O. Lindstrum, Ph.D., Professor of Mathematics  
 Marilyn Livingston, Ph.D., Professor of Mathematics  
 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, Jewish Hospital, St. Louis, MO  
 Donal G. Myer, Ph.D., Professor of Biological Sciences  
 Shankar Nair, Ph.D., Chairman and Associate Professor of Biological Sciences  
 Satish Natak, Ph.D., Associate Professor of Engineering  
 Clellie C. Oursler, Ph.D., Professor of Mathematics  
 Alexander Pal, Ph.D., Associate Professor of Mathematics  
 Rao Palamand, Ph.D., Adjunct Professor of Chemistry  
 Vincent G. Palermo, M.D., Adjunct Professor of Medical Technology, St. John's Mercy Hospital, St. Louis, MO  
 Nancy R. 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., Chairperson and Professor of Mathematics, Statistics, and Computer Science  
 Paul H. Phillips, Ph.D., Associate Professor of Mathematics  
 Rex Pierce, B.S., Instructor of Engineering  
 Robert Pocreva, M.S., Assistant Professor of Engineering  
 David G. Rands, Ph.D., Professor of Chemistry  
 Kermit O. Ratzlaff, Ph.D., Associate Professor of Biological Sciences  
 Mark P. Rossow, Ph.D., Associate Professor of Engineering  
 Robert B. Rutledge, Ph.D., Professor of Engineering  
 George Schroeder, Ph.D., Associate Professor of Engineering  
 Luke M. Snell, M.S.C.E., Associate Professor of Engineering  
 Russell Soloman, B.S., Adjunct Professor of Engineering  
 Peter John Soto, M.D., Adjunct Professor of Medical Technology, St. Elizabeth's Hospital, Belleville, IL  
 John A. Spencer, Ph.D., Associate Professor of Chemistry  
 David I. Steinberg, D.Sc., Professor of Mathematics  
 G. Gregory Stephen, Ph.D., Associate Professor of Mathematics, Statistics and Computer Science  
 Eric A. Sturley, Ed.D., Professor of Mathematics  
 P. N. Swamy, Ph.D., Professor of Physics  
 Jamie E. Thomerson, Ph.D., Professor of Biological Sciences  
 Joyce A. Torrey, M.Ed., Adjunct Assistant Professor of Medical Technology, Jewish Hospital, St. Louis, MO  
 Donald Van Fossan, M.D., Adjunct Professor of Medical Technology, St. John's Hospital, Springfield, IL  
 Nadine L. Verderber, Ph.D., Associate Professor of Mathematics  
 Ronald E. Viola, Ph.D., Assistant Professor of Chemistry  
 Norval D. Wallace, Ph.D., Professor of Engineering  
 J. Edmund White, Ph.D., Professor of Chemistry  
 Antony C. Wilbraham, Res. Dipl., Professor of Chemistry  
 Howell K. Wilson, Ph.D., Professor of Mathematics  
 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

# SCHOOL OF SOCIAL SCIENCES



SUZANNE D. JACOBITTI, DEAN

**OFFERING DEGREES IN:**  
**ANTHROPOLOGY**  
**EARTH SCIENCE**  
**ECONOMICS**  
**GEOGRAPHY**  
**GOVERNMENT**  
**HISTORY**  
**SOCIOLOGY**  
**SOCIAL WORK**

The School of Social Sciences offers bachelor degree programs in anthropology, earth science, economics, geography, government, history, sociology, and social work. It also has master degree programs in behavioral science, city and regional planning, geography, government, history, public administration, and sociology.

Undergraduate programs in these fields prepare students for a variety of careers in government, teaching, and private enterprise, as well as for more advanced training at the master's and doctoral levels. Undergraduate courses in the School also provide an important component of a general liberal arts education appropriate to all university students.

While the primary focus of the School is instructional, most of the faculty are also active in basic or applied research and in professional service. There is a special commitment to using the professional skills of the faculty to assist in the social, economic, and cultural development of the southern Illinois region in such areas as improving the quality of the environment, conservation of natural resources, stimulating interest in local history, and improving the quality of local government services.

## 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; 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            | Museums                      |
| Research            | Archaeological Salvage       |
| Government Agencies | Foreign Service              |
| Industry            | Cultural Resource Management |

## 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.

|  |    |
|--|----|
| General Studies Requirements (See Chapter 4. Waive GSS-8.)     | 60 |
| Foreign Language Requirement                                   | 12 |
| Requirements for Major in Anthropology                         | 48 |
| GSM 365  | 4  |
| Anthropology 400, 408, 411, 442                                | 16 |
| One ethnography course to be taken from 305a, b, 307, 311, 482 | 4  |
| Anthropology 301 or 401  | 4  |
| Electives chosen in consultation with undergraduate adviser    | 20 |
| Minor  | 27 |
| Electives  | 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—375a, b (4 to 8, 4 to 8) and 475a, b (4 to 8, 4 to 8), or the presentation of acceptable evidence of previous fieldwork experience, in lieu of the 12 hours of foreign language required in the Bachelor of Arts program.

### Minor in Anthropology

A minor in anthropology consists of 27 hours and includes GSS 210, one physical anthropology course, and one cultural anthropology course. The remaining hours consist of anthropology electives selected in consultation with the undergraduate anthropology adviser.

### ECONOMICS

The Department of Economics, which is housed in the School of Business, offers two degrees under the auspices of the School of Social Sciences: a Bachelor of Arts degree with a major in economics and a Bachelor of Science degree with a major in economics. Candidates for either of these degrees must complete 48 hours in 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

|  |     |
|--|-----|
| General Studies Requirements (See Chapter 4.)        | 60  |
| Requirements for Major in Economics <sup>1</sup>     | 48  |
| GSM 144, 244   | (9) |
| Economics 201, 202, 321, 401, 402                    | 20  |
| Economics Electives                                  | 28  |
| Minor  | 28  |
| The minor must be approved by the student's adviser. |     |
| Foreign Language                                     | 12  |
| Electives  | 44  |

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### Bachelor of Science Degree, School of Social Sciences

|  |     |
|--|-----|
| General Studies Requirements (See Chapter 4.)        | 60  |
| Requirements for Major in Economics <sup>1</sup>     | 48  |
| GSM 144, 244   | (9) |
| Economics 201, 202, 321, 401, 402                    | 20  |
| Economics Electives                                  | 28  |
| Minor  | 28  |
| The minor must be approved by the student's adviser. |     |
| Electives  | 56  |

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<sup>1</sup>GSS 150 does not count toward completion of the requirements for a major in economics.

### Minor in Economics

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

### Bachelor of Science Degree, School of Business

See School of Business section of this chapter.

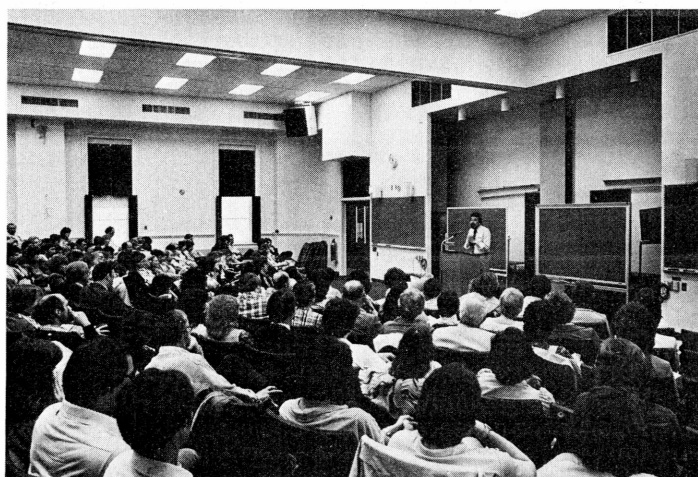
## GEOGRAPHY AND EARTH SCIENCE

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. Students may elect to pursue a program leading to a specialty in cartography, environmental conservation, planning, area development, or cultural/regional geography.

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 a 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                         | Business               |
| Teaching                    | Planning               |
| Governmental Administration | Travel Agencies        |
| Politics                    | Environmental Analysis |
| Diplomacy                   | Cartography            |

## GEOGRAPHY

### *Bachelor of Arts Degree in Geography, School of Social Sciences*

|  |     |
|--|-----|
| General Studies Requirements (See Chapter 4.)  | 60  |
| Foreign Language Requirement   | 12  |
| Requirements for Major in Geography  | 48  |
| Core Requirements: 302, 303 or 307, 304, 306, 308, 310a,<br>410a and one regional course (substitutions require<br>consent of geography adviser) | 32  |
| Geography Electives  | 16  |
| Electives  | 72  |
|  | 192 |

### *Bachelor of Science Degree in Geography, 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 and the elective hours are increased by 12.

## EARTH SCIENCE

### *Bachelor of Science Degree in Earth Science, School of Social Sciences*

|   |     |
|---|-----|
| General Studies Requirements (See Chapter 4.)   | 60  |
| Requirements for Major in Earth Science   | 52  |
| Core requirements: 215a, 215b, 303, 325, 400,<br>401, 403a, b, or c, 410a, and 441 or 442 | 36  |
| Earth Science electives   | 16  |
| Electives   | 80  |
|   | 192 |

### *Bachelor of Science Degree in Geography or Earth Science, School of Education*

Students who intend to teach at the secondary level may choose the degree Bachelor of Science in the School of Education with a major in geography or earth science. This major constitutes the teaching field specialization for the education degree. For those degrees a minor is required. A 36-hour major is acceptable with two teaching minors.

For the earth science major, the student must take Earth Science 444, Teaching of Earth Science, and is urged to take a minor in such fields as biology, chemistry, computer science, physics, mathematics, or environmental studies. For the geography major, either Geography 443 or 480 is recommended.

### *Minor in Geography or Earth Science*

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 28 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 402a, b, or c, 404a, 412-2, 471a, 475-5. Group II: Science and Technology—GSM 131-2, 234, 300, Biology 303a, 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. 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**

|   |     |
|---|-----|
| General Studies Requirements (See Chapter 4.)               | 60  |
| Foreign Language Requirement                                | 12  |
| Requirements for Major in Government                        | 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  |
|   | 192 |

**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 and the elective hours are increased by 12.

**Bachelor of Science Degree, School of Education**

Students who intend to teach at the secondary level may choose the degree Bachelor of Science in the School of Education with a major in government. This major constitutes the teaching field specialization for the education degree. The requirements for this major total 48 or 36 hours in government depending on whether the student has one minor or two. They must include 200 and 203, and at least 4 hours (but no more than 20 hours) must 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**

|   |     |
|---|-----|
| General Studies Requirements (See Chapter 4.)             | 60  |
| Requirements for Major in History                         | 52  |
| Four courses (at least one in U.S. History) from GSS 101, |     |
| 102, 103, 105, 200, 201, 202, History 100.....            | 16  |
| History 452.....  | 4   |
| Eight history courses elected by the student at the       |     |
| junior-senior level (301-499; two history 300 mini-       |     |
| courses may be substituted for one of the eight           |     |
| history courses) .....                                    | 32  |
| Foreign Language Requirement.....                         | 12  |
| Minor.....  | 27  |
| Electives.....  | 41  |
|   | 192 |

**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***

Students who intend to teach at the secondary level may choose the degree Bachelor of Science in the School of Education with a major in history. This major constitutes the teaching field specialization for the education degree. The requirements for this major are the same as those for the Bachelor of Science degree in history offered in the School of Social Sciences.

### ***Minor 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 minicourses 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 may 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 employees 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. Sociology majors must have a grade-point average of 3.0 in sociology courses.

### ***Bachelor of Science Degree, School of Social Sciences***

|  |    |
|--|----|
| General Studies Requirements (See Chapter 4. Waive GSS-8.) | 60 |
| Requirements for Major in Sociology                        | 48 |
| GSS 130  | 4  |
| Sociology 310, 312, 321, 430, 456                          | 20 |
| Sociology electives  | 24 |
| Minor  | 28 |
| Electives  | 56 |

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### ***Bachelor of Arts Degree, School of Social Sciences***

|  |    |
|--|----|
| General Studies Requirements (See Chapter 4. Waive GSS-8.) | 60 |
| Foreign Language Requirement                               | 12 |
| Requirements for Major in Sociology                        | 48 |
| GSS 130  | 4  |



|   |     |
|---|-----|
| Sociology 310, 312, 321, 430, 456 ..... | 20  |
| Sociology electives.....                | 24  |
| Minor.....                              | 28  |
| Electives.....                          | 44  |
|   | 192 |

### 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

|   |    |
|---|----|
| General Studies Requirements.....                                       | 60 |
| (GSS 150 required)  |    |
| Professional Requirements .....   | 58 |
| Social Work 200, 282, 375, 381, 383, 385, 475, 480, 481, 482, 490 ..... | 50 |
| Sociology 308, 312 .....  | 8  |
| Supporting Requirements .....   | 32 |
| Anthropology 411 .....  |    |
| Economics 327 (GSS 150 required prerequisite)                           |    |
| Government 203, 342 .....   |    |

|  |    |
|--|----|
| Psychology 305 and one of the following: 301, 303, 304<br>Sociology 300, 304<br>Electives <sup>1</sup> ..... | 42 |
|--|----|

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<sup>1</sup>Elective courses in social work are 382-4, 389-2 to 5, 485-2.

## 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—8 (4,4) PEOPLES AND CULTURES OF THE WORLD I.** (a) North America. The historical background for indigenous people in the New World, the development and ethnography of North American cultural areas and the cultural area as a tool of modern anthropology, and examination of current political and social problems among American Indians. (b) Asia. Geography, history, cultural and social organization of peoples of Asia, with special emphasis on South 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 (4-8,4-8) 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. Each segment carries 4-8 quarter hours credit. Prerequisite: GSS 210 or consent of instructor.

**400—4 CULTURAL ANTHROPOLOGY.** Nature of culture and theoretical approaches to studying it. Introduction to fieldwork and discussion of some of the basic institutions of culture, including language, economics, kinship, and religion.

**401—4 ANTHROPOLOGICAL LINGUISTICS.** (See English 400.) A survey of linguistic concepts and theories. Recommended for anthropology students, linguistic students, and those preparing to teach English.

**404—4 ANTHROPOLOGY AND THE ARTS.** Anthropological approach to the arts. Consideration of the origins of art and evidence for art in early human history. Introduction to the graphic and plastic arts, and ethnomusicology, choreology, and folklore among selected non-Western cultures.

**405—4 KINSHIP AND KIN GROUPS.** A comparative approach to the basic organization of small societies. Functional aspects and distributions of kinship and kin groups.

**407—4 PRIMATOLOGY.** Introduction to various aspects of primate evolution, behavior (ethology), physiology and ecology. Special consideration to development of locomotion and other motor skills, evolution of the brain, and recent developments in understanding of primate communication and associated cognitive processes. Prerequisite: GSS 210.

**408—4 HISTORY OF ANTHROPOLOGICAL THOUGHT.** 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 person, government official, and other specialists dealing with people 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 humans and their cultures. 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 PERSPECTIVES.** 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 human-habitat relationships, especially concerned with cultural adaptations. Problems related to environmental change, migration, and population growth, technological and institutional changes; attitudes toward change and perception by people of problems involved in modifying their traditional habits and values. Prerequisite: sophomore standing or consent of instructor.

**452—4 POLITICAL ANTHROPOLOGY.** Cross-cultural comparison

of political systems with emphasis on non-European peoples: functional relations between politics and society; the growth of political complexity; and systems of authority and leadership. Prerequisites: junior standing, consent of instructor.

**470—4 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 Chairperson before enrolling.

## EARTH SCIENCE

**215a—4 MINERALOGY AND CRYSTALLOGRAPHY.** An introduction to the occurrence of important and common minerals, their descriptions, properties and identification. The crystalline state of minerals including morphology, habit, and crystal chemistry. Prerequisite: GSM 111 or Chemistry 105.

**215b—4 PETROLOGY.** The natural history of rocks. Geological, physical, and chemical factors governing their origin and occurrence. Description and identification of common types. One weekend and one Saturday field trip required. Prerequisite: 215a.

**302—4 INTRODUCTION TO PHYSICAL GEOGRAPHY.** A study of the earth's physical surface, world distribution patterns of the physical elements, their relationships to each other, and their importance to man. Field trip and laboratory work. Prerequisite: GSM 111.

**303—4 METEOROLOGY.** An introduction to weather elements, condensation process, air masses, cyclonic activity, and weather movements. Prerequisite: GSM 110.

**307—4 CLIMATE.** A study of the major climates of the world with special emphasis on the climates of the United States. Prerequisite: GSM 110.

**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. Prerequisite: GSM 110.

**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.

**402a—4 SOILS.** Designed to introduce surficial material from the viewpoint of the soil scientist and geologist. Examination of soil properties in the field. Study of the soil taxonomic classification system. Prerequisite: GSM 111 or consent of instructor.

**402b—4 AIR MASS CLIMATE.** A special topics course which emphasizes site (micro) climatology and meteorology. Application of air pollution problem areas and solar heating are stressed. Prerequisite: 303.

**402c—4 WATER.** The hydrologic cycle, major stream systems, hydrologic aspects, and the uses of water resources and their relationship to quality and future supplies. Prerequisite: junior status.

**403a—4 PRINCIPLES OF GEOMORPHOLOGY.** Processes and structures influencing the shape of the land surface. Prerequisite: GSM 111.

**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. Prerequisites: 403a or 325 or consent of instructor.

**403c—4 REGIONAL GEOMORPHOLOGY OF THE WESTERN UNITED STATES.** Description, origin, and geomorphic history of the natural landform regions of the United States from the Great Plains west. Prerequisite: 403a or 325 or consent of instructor.

**410—8 (4,4) QUANTITATIVE METHODS.** (Same as Geography 410.) Statistical, computer, and remote sensing research techniques.

**412—2 (1,1) CONSERVATION OF ILLINOIS.**

**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 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 reading on areas visited. (May be repeated for a total of 15 hours).

**471—8 (4,4) REGIONAL ENVIRONMENTAL PLANNING.** (See Geography 471.)

**475—4 to 8 FIELD STUDY OF ENVIRONMENTAL PROBLEMS.** Field investigation of the environment and problems relating to man's use of the natural resources and environment. Prerequisite: advanced standing. (May be repeated for a total of 8 hours).

**490—1 to 4 (8 total) TUTORIAL IN EARTH SCIENCE.** Individual and small group conferences with staff members to examine earth science concepts.

## GEOGRAPHY

**215a—4 MINERALOGY AND CRYSTALLOGRAPHY.** (See Earth Science 215a.)

**215b—4 PETROLOGY.** (See Earth Science 215b.)

**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 measurements 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—4 GEOGRAPHY OF ANGLO-AMERICA.** (a) Anglo America—Tropical. Physical, cultural, and economic coverage.

**462—4 GEOGRAPHY OF EUROPE.** (a) 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—20 (4,4,4,4,4) URBAN PLANNING.** (a) History of planning, (b) planning and politics, (c) planning and housing, (d) planning problems, (e) planning seminar.

**471—8 (4,4) REGIONAL ENVIRONMENTAL PLANNING.** (Same as Earth Science 471.) (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 requirements.

**310—4 INTRODUCTORY SOCIAL STATISTICS.** An introduction to descriptive and inferential statistics. Among the topics covered are: frequency distributions and their graphic representations, the normal curve, measure of central tendency and dispersion, measures of association, the tabular presentation of multivariate data, probability, estimation and hypothesis testing.

**320—4 INTRODUCTION TO PUBLIC ADMINISTRATION.** A study of principles and problems of administrative organization and coordination, 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, municipal-

ities, 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.

**355—8 (4,4) POLITICAL SYSTEMS OF MAJOR NON-EUROPEAN STATES.** (a) Latin America. An examination of the political systems of the 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 OF 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) Amer-

ican Voting Behavior. Survey of studies of American elections emphasizing the psychology, 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 chairperson 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 chairperson is received. Prerequisite: 350 or 355.

**472—4 INTERNATIONAL ORGANIZATIONS.** (a) Description and analysis of both past and contemporary general international organizations, with special emphasis on the principles, structure, decision-making processes, operations, and problems of the United Nations and its related agencies. Prerequisite: 200.

**473—12 (4,4,4) FOREIGN POLITICS OF MAJOR POWERS.** (a) American Foreign Policy. Institutional framework and decision-making processes of American foreign policy; idealist and realist schools of thought; the national interest in historic and geographic perspective. (b) Soviet Foreign Policy. Analysis of objective strategy, and tactics of Soviet foreign policy, with emphasis on the combination of conventional and unconventional instruments including role of Communist parties. (c) Foreign Policies of Western European States. Analysis of foreign policies of the major European powers, with emphasis on structural changes incident to the two world wars and the dissolution of colonial empires. Prerequisite: 370.

**474—8 (4,4) PUBLIC INTERNATIONAL LAW.** (a) Nature, Sources and Development of International Law. (b) Jurisdiction, Boundaries and War in International Law. An introduction to the role of international law in contemporary world affairs. Origins of international law, legal aspects of interstate behavior, settlement of disputes, and use of force. Prerequisite: (b) 474a.

**479—4 TOPICS IN INTERNATIONAL RELATIONS.** A detailed study of a selected topic. Primarily for government students with advanced standing. May be repeated for total of 8 hours credit when content differs and consent of department chairperson is received. Prerequisite: 370.

**481—8 (4,4) DESCRIPTIVE POLITICAL THEORY.** (a) Contemporary 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 chairperson is received.

**495—12 (4,4,4) CONSTITUTIONAL LAW.** (a) A study of the development of American constitutional law chiefly through judicial opinion. Emphasis is placed on the analysis of federalism and the distribution of powers. (b) A study of government power and the rights of property. Special attention is directed to tension between the public welfare and private rights, the extent of government power to regulate property rights, and state versus federal power over commerce and taxation. (c) A study of the nature and extent of civil rights and liberties in the United States. Special attention to freedom of speech, press, and association, separation of church and state, equal protection of the laws, rights of persons accused of crime. Prerequisite: 203.

**495d—4 THE SUPREME COURT AND CRIMINAL PROCEDURE.** A study of the Fourth, Fifth, Sixth, and Eighth Amendment protections of criminal defendants. Emphasis is on the nationalization of the Bill of Rights, arrest, search, and seizure, assistance of counsel, due process of law, and the permissible scope of punishment. Prerequisite: 203.

**498—2 to 8 LEGAL AID INTERNSHIP.** Assisting legal-aid attorneys and public defenders with legal research, preliminary interviews of clients, investigating of complaints, and organizing welfare-rights groups. This course may be taken for one or two quarters but no more than 8 hours credit may be earned. Students work as paraprofessionals ten hours per week for 4 hours credit and twenty hours for 8 hours of credit. Not for graduate credit. Prerequisite: 340c or 495 recommended.

**499—4 to 8 INTERNSHIP IN GOVERNMENT.** Internships consist of 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.

**304—4 GREAT TRIALS, ASSASSINATIONS AND EXECUTIONS.** Eight to ten of the most famous trials, executions, and assassinations in European history (e.g., Socrates, Christ, Caesar, Joan of Arc, Charles I, Marie Antoinette, Archduke Francis Ferdinand, Adolf Eichmann, etc.) will be dealt with. Each figure will be treated both as an individual and as a symbol of some important theme in European history. The persons treated will vary from quarter to quarter.

**306—12 (4,4,4) HISTORY OF ROME.** (a) The Republic. (b) The Western Empire. (c) The Eastern Empire.

**308—4 HISTORY OF ILLINOIS.** A history of the State of Illinois from French settlement to the present. A survey of the political, social, economic, and cultural history of Illinois.

**309—4 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 ARAB WORLD.** (a) The Islamic experience from Muhammad to the decline of the Abbasid Caliphate, 570-945. (b) Islamic civilization in the period of the Crusades and the Ottoman Empire, 945-1789. (c) Nationalism and modernization in the modern Middle East, 1789 to the present.

**332—12 (4,4,4) MEDIEVAL HISTORY.** (a) Early Middle Ages, 500-1000. (b) High Middle Ages, 1000-1300. (c) Late Middle Ages, 1300-1500.

**334—12 (4,4,4) HISTORY OF CHINA.** The study of Chinese civilization from prehistoric times to the present with emphasis on institutional development, Chinese society, and the principal intellectual achievements. (a) Ancient period to 1689—Early and Middle Empire. (b) 1689 to 1912—Late Empire. (c) 1912 to present—Revolutionary Era.

**335—4 HISTORY OF MODERN JAPAN.** A study of Japan in the 19th and 20th centuries with particular reference to its relationships with the Western World. An emphasis on the traditional versus the Western-inspired elements in Japan in modern times.

**338—8 (4,4) HISTORY OF GREECE.** (a) Hellenic history. (b) 401-133 B.C.

**341—8 (4,4) HISTORY OF RELIGION IN WESTERN CIVILIZATION.** (a) Religion in European history. (b) Religion in the United States. A study of religious institutions, ideas, and practices in Western civilization and their relationship to society.

**342—8 (4,4) HISTORY OF CANADA.** A study of the origins, and political, economic, and social development of the modern Canadian state. a) French period to Dominion status (1867), b) Modern Canada since 1867.

**352—12 (4,4,4) HISTORY OF LATIN AMERICA.** (a) Colonial Latin America. (b) Latin America from 1800 to 1914. (c) Latin America from 1914 to the present.

**355—4 ITALIAN UNIFICATION AND WORLD WAR I.** A study of the men, movements, and ideas which led to the formation of the Italian nation and the events which led Italy into World War I in 1915.

**358—8 (4,4) HISTORY OF SCIENTIFIC DISCOVERY.** (a) To 1500. (b) 1500 to 1900.

**372—12 (4,4,4) HISTORY OF RUSSIA.** (a) 900-1801—The Early Empire. (b) 1801-1914—The Late Empire. (c) Since 1914—War, Revolution, and Soviet Russia.

**385—4 THE CITY IN UNITED STATES HISTORY.** A study of the importance of the city in United States history.

**390—4 THE WOMEN'S RIGHTS MOVEMENT IN THE UNITED STATES.** A history of the struggle women have had in the United States for legal, political, economic, and social rights. Attention to leaders in the movement as well as the influence of and connection with other reform movements.

**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.

**410—2 to 5 SPECIAL READINGS IN HISTORY.** Supervised reading for students with sufficient background. Registration by special permission only. Offered on demand. Prerequisites: minimum of 4.0 average in history, consent of chairperson.

**412—8 (4,4) INTELLECTUAL HISTORY OF THE UNITED STATES.** (a) To 1865. (b) Since 1865.

**414—8 (4,4) HISTORY OF EASTERN EUROPE.** (a) 1815-1918. An analysis of the rise of nationalism with emphasis on the problems of the Austro-Hungarian Monarchy. (b) Since 1918. An analysis of the problems of the Succession States.

**415—12 (4,4,4) EARLY MODERN EUROPE.** (a) Renaissance. (b) Reformation. (c) Age of 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 requirement.

**427—4 HISTORY OF THE ARAB-ISRAELI CONFLICT.** A history of the origins and developments of relations between the Arab world and Israel.

**428—4 THE AGE OF JACKSON.** Origins, background, and development of that phase of American democracy associated with the Jacksonian era. The political, social, and economic history of the years 1815-1844 in detail.

**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.

**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) TWENTIETH CENTURY 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.

**452—4 HISTORICAL RESEARCH.** The rules of historical research studied and applied to a selected topic. Required of all undergraduate students with a major in history. Prerequisite: junior standing.

**453—8 (4,4) HISTORY OF MODERN FRANCE.** (a) An in-depth study of the problem of nineteenth century France which led from an empire to a democratic republic. (b) A study of France in the twentieth century.

**454—4 BIOGRAPHY IN AMERICAN HISTORY.** Outstanding leaders and their contributions to the history of the United States. Attention to historical writers who specialize in biography.

**455—4 MEN AND WOMEN OF MODERNEUROPE.** A biographical history course. A study of the lives and contributions of leading figures of the eighteenth, nineteenth, and twentieth centuries.

**456—8 (4,4) RECENT GERMAN HISTORY.** (a) Germany from the close of the Napoleonic Wars through unification. (b) Germany from the Second Empire through World War II.

**460—12 (4,4,4) SOCIAL AND INTELLECTUAL HISTORY OF THE MIDDLE AGES.** (a) 500-1000. (b) 1000-1250. (c) 1250-1500.

**465—4 CHINESE COMMUNIST REVOLUTIONS.** Revolutionary changes brought about by the Chinese Communist Party since its creation in 1921. Attention to the role played by such leaders as Mao Tse-tung.

**471—8 (4,4) HISTORY OF MEXICO.** (a) Spanish conquest to the death of Juarez. (b) Death of Juarez to the present.

**473—8 (4,4) THE CARIBBEAN AREA.** (a) Island States of the Caribbean. (b) Central American Area.

**477—8 (4,4) HISTORY OF AMERICAN BUSINESS.** (a) The

development of corporations, stock markets, banks and agriculture to the Civil War. (b) American business from 1860 to the present.

**485—4 ORIGINS AND HISTORY OF WORLD WAR II.** An examination of the causes and development of World War II, with emphasis on military operations and diplomatic aspects. Lectures combined with intensive reading, discussions, and films.

## 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 8 INDEPENDENT STUDY IN SOCIAL WORK.**

**400—2 to 4 SPECIAL TOPICS.** Elective study of a specific field of professional practice, or special topic from a social work perspective, (i.e., medical social work, income maintenance and welfare policy, social work with the handicapped). Consult Schedule of Classes for specific topics offered in a particular quarter. This course may be repeated as often as desired. Not for graduate credit.

**475—4 SOCIAL WELFARE POLICY ANALYSIS.** Develops and expands critical and analytical understanding of social welfare policy development, implementation and its impact on service delivery. Focus on local communities and agencies with consideration to state and federal influences. Prerequisite: 375 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 METHOD II.** Theory, rationale, and practice of casework, group work, social welfare organization, and the roles of supervision, administration, and research in relation to each. Case material study and discussion with field observation and practice. Prerequisite: 480.

**482—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.

**490—4 SENIOR SOCIAL WORK SEMINAR.** A summarizing course. Designed to prepare the graduating senior for entry into employment of choice or graduate education. Format to be determined by individual instructor and class body. Not for graduate credit. Prerequisites: 481, consent of instructor.

## SOCIOLOGY

Sociology courses are numbered on the basis of their classification into one of the topical categories. This classification is intended to assist students in selecting courses and programs of study. The student should recognize that many courses could be placed into other categories in addition to the one in which it has been placed. In order to determine the category of a particular course found in the catalog, the student should use the last two digits of the course number and the following numbering classification. For example, if the last two digits fall within the 10-19 range, the course is considered to be a methods or statistics course. The classification scheme is used for 300, 400, and 500 level courses in the Sociology Department.

00-09 Social Problems and Intergroup Relations  
10-19 Methods and Statistics  
20-29 Social Psychology  
30-39 Social Organization and Structure  
40-49 Social Institutions  
50-59 Theory and Knowledge  
60-69 Social Change and Collective Behavior  
70-79 Crime, 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.** (Same as Government 310.) An introduction to descriptive and inferential statistics. Among topics are: frequency distributions and their graphic representations, the normal curve, measures of central tendency and dispersion, measures of association, the tabular presentation of multivariate data, probability, estimation and hypothesis testing.

**312—4 SOCIAL RESEARCH METHODS.** An introduction to the fundamentals of measurement, research design, and data analysis. Among topics are: problem formulation, issues in measurement and scale construction, the logic of analysis and the methods for determining causal relations

among variables, alternative research designs (such as experimental design, survey research, field research, content analysis, and use of archival data) and methods of data collection and analysis, and the interrelationships of theory and research. 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 OF 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 and internal migration.

**390—2 to 4 (8 total) SOCIOLOGICAL PERSPECTIVES.** An investigation, from a sociological perspective, of various topics of contemporary interest to students. 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 chairperson.

**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; altercating; 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 movement.

**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 and Social Work

Joyce C. Aschenbrenner, Ph.D., Associate Professor of Anthropology

Robert E. Ashpole, Ph.D., Assistant Professor of Sociology and Social Work

Michael C. Astour, Ph.D., Professor of Historical Studies

Deipica M. Bagchi, Ph.D., Assistant Professor of Earth Science, Geography, and Planning

William B. Baker, Ph.D., Professor of Earth Science, Geography, and Planning

Hugh D. Barlow, Ph.D., Associate Professor of Sociology and Social Work

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Robert B. Campbell, Ph.D., Professor of Sociology and Social Work

Paul J. Campisi, Ph.D., Emeritus Professor of Sociology and Social Work

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Judith Cingolani, M.S.W., Associate Professor of Sociology and Social Work

Donald W. Clements, Ph.D., Associate Professor of Earth Science, Geography, and Planning



- James E. Collier, Ph.D., Emeritus Professor of Earth Science, Geography, and Planning
- Betty I. Crowther, Ph.D., Professor of Sociology and Social Work
- Sidney G. Denny, Ph.D., Associate 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 and Social Work
- 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., Chairperson and Associate Professor of Anthropology
- Robert P. Frost, M.A., Instructor of Earth Science, Geography, and Planning
- John G. Gallaher, Ph.D., Professor of Historical Studies
- Kurt Glaser, Ph.D., Professor of Government and Public Affairs
- William Goodman, Ph.D., Emeritus Professor of Government and Public Affairs
- Dorothy J. Gore, Ph.D., Associate Professor of Earth Science, Geography, and Planning
- Samuel B. Grant, Ph.D., Associate Professor of Historical Studies
- James M. Haas, Ph.D., Professor of Historical Studies
- Warren H. Handel, Ph.D., Associate Professor of Sociology and Social Work
- James M. Henslin, Ph.D., Professor of Sociology and Social Work
- Charles F. Hess, Ph.D., Professor of Earth Science, Geography, 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
- 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 Science, Geography, and Planning
- Alfred Kahn, M.S., Professor of Earth Science, Geography, and Planning
- Melvin E. Kazeck, Ph.D., Professor Emeritus of Earth Science, Geography, and Planning
- James R. Kerr, Ph.D., Professor of Government and Public Affairs
- Stanley B. Kimball, Ph.D., Professor of Historical Studies
- Harry B. Kircher, Ph.D., Chairperson and Professor of Earth Science, Geography, and Planning
- Robert L. Koepke, Ph.D., Professor of Earth Science, Geography, and Planning
- Fred A. Lampe, Ph.D., Associate Professor of Earth Science, Geography, and Planning
- Robert H. Lauer, Ph.D., Professor of Sociology and Social Work
- Carl S. Lossau, Ph.D., Professor of Earth Science, Geography, 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 Science, Geography, and Planning
- Wilbur C. McAfee, M.A., Associate Professor Emeritus of Historical Studies
- Don F. McCabe, Ph.D., Chairperson and Associate Professor of Government and Public Affairs
- Allan J. McCurry, Ph.D., University Archivist and Professor of Historical Studies
- Daniel S. McHargue, Ph.D., Professor Emeritus of Government and Public Affairs
- Robert E. Mendelson, M.U.P., Associate Professor of Earth Science, Geography, and Planning
- Halsey W. Miller, Ph.D., Professor of Earth Science, Geography, and Planning
- Richard L. Millett, Ph.D., Professor of Historical Studies
- Norman E. Nordhauser, Ph.D., Professor of Historical Studies
- Ellen Nore, Ph.D., Assistant Professor of Historical Studies
- David S. Paulsmeyer, Ph.D., Assistant Professor of Government and Public Affairs
- Samuel C. Pearson, Ph.D., Chairperson and 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 and Social Work
- Herbert H. Rosenthal, Ph.D., 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., Associate Professor of Government and Public Affairs
- Kenneth A. Shaw, Ph.D., Chancellor and Professor of Sociology and Social Work
- Marley C. Smith, M.S.W., Assistant Professor of Sociology and Social Work
- Arthur A. Stahnke, Ph.D., Professor of Government and Public Affairs
- Ronald A. Steckling, Ph.D., Associate Professor of Historical Studies
- Donald K. Strohmeier, M.R.P., Associate Professor of Earth Science, Geography, and Planning
- Richard L. Swaine, Ph.D., Chairperson and Associate Professor of Sociology and Social Work
- Donald L. Taylor, Ph.D., Professor of Sociology and Social Work
- John A. Taylor, Ph.D., Associate Professor of Historical Studies
- Noble R. Thompson, Ph.D., Associate Professor of Earth Science, Geography, and Planning
- Charles A. Thornton, Ph.D., Associate Professor of Earth Science, Geography, and Planning
- Fred W. Voget, Ph.D., Professor Emeritus 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., Associate 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 Science, Geography, and Planning

## OTHER ACADEMIC PROGRAMS



### 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, the arts, 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.

### 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.

**CENTER FOR URBAN AND ENVIRONMENTAL  
RESEARCH AND SERVICES  
DELINQUENCY STUDY AND YOUTH  
DEVELOPMENT CENTER  
ENVIRONMENTAL RESOURCES TRAINING CENTER  
OFFICE OF CONTINUING EDUCATION  
OFFICE OF SPECIAL PROGRAMS AND  
MINORITY AFFAIRS**

The staff of the Center consists of a nine-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 MAJOR

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 interdisciplinary 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 Science Degree, Human Services

|  |       |
|--|-------|
| General Studies Requirements (See Chapter 4. Waive GSS-8.) | 60    |
| Requirements for Major in Human Services                   | 48    |
| Human Services 101, 320, 401a                              | 12    |
| Human Services elective hours <sup>1</sup>                 | 36    |
| Minor  | 25-40 |
| Electives  | 44    |
|  | 192   |

<sup>1</sup>No more than a total of 12 hours of independent study will apply toward the human services major.

### Bachelor of Arts Degree, Human Services

Students seeking a Bachelor of Arts degree should follow the program outlined above, adding 12 hours of foreign language.

### Minor in Human Services

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.

**330—4 LEGAL ASPECTS OF HUMAN SERVICES.** An examination of legal concepts and issues as they relate to the Human Services

practitioner (e.g., equal protection, due process, right of privacy and confidentiality). Time is also devoted to teaching the student the fundamentals of legal research as well as how he/she can best effectuate his/her role in court proceedings. Prerequisites: 24 hours in Human Services; consent of adviser.

**401a,b,c—12 (4,4,4) PRACTICUM IN HUMAN SERVICES.** Student placement in a human service agency or organization with intensive supervision by an individual faculty member as well as agency representative. It is anticipated that students will be able to gain practical experience and apply their academic knowledge during practicum. Practicum provides each student with the opportunity to utilize the kinds of skills acquired in the total program. Practicum projects are based on the specific career interests of each student and are supervised by the staff member closest to that interest area. Research, field placement, and a practicum report are required. Students are encouraged to take the practicum courses during their senior year. NOT FOR GRADUATE CREDIT.

**402—1 to 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.

**411—4 SURVEY OF ADVANCED TREATMENT MODELS IN HUMAN SERVICES.** An indepth survey of treatment and growth models currently being applied in a variety of human service settings. This course is a continuation and expansion of 408. This course is designed to help students understand the various treatment models, and is not intended to teach students how to perform the various psychotherapeutic techniques. Prerequisites: 101, 408, and consent of adviser.

**490—1 to 12 INDEPENDENT PROJECTS IN THE HUMAN SERVICES.** Independent projects in human services. Prerequisites: consent of adviser and instructor, senior status.

**491—1 to 8 DIRECTED READINGS IN THE HUMAN SERVICES.** Directed readings in human services. Prerequisites: consent of adviser and instructor, senior status.

**492—1 to 12 INDEPENDENT RESEARCH IN HUMAN SERVICES.** The design and implementation of a research project with the consultation of a faculty member. Prerequisites: 320, consent of adviser and instructor, senior status.

## DELINQUENCY STUDY AND YOUTH DEVELOPMENT CENTER FACULTY

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, Instructor



Nicholas A. Reuterman, Ph.D., Director and 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 water quality control 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 training in the most current technology and procedures for treatment of both potable water supplies and wastewaters. In addition to classrooms and an auditorium, the ERTC facilities include:

- fully equipped wet chemistry teaching labs
- teaching lab for instrumental analysis
- library/media support center
- self instruction lab
- pilot scale water and wastewater equipment
- 0.3 million gallon per day wastewater treatment plant

The ERTC staff includes a Director, six full-time instructors, a student adviser, a laboratory manager, and clerical support personnel. All instructors are licensed water supply or wastewater facility operators.

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 water quality control 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. The ERTC also offers a full-time one-year program at the ERTC facility which leads to a Certificate of Completion in Water Quality Control Operations.

### WHAT IS "WATER QUALITY CONTROL OPERATIONS"?

Water must be treated and disinfected before it is safe and acceptable for distribution to the public for drinking, cooking, bathing, and other uses. Wastewater, which is water that has been used by the public, must be collected and treated before it can be discharged back into streams, rivers, and lakes.

Elaborate and complex systems are needed to pump, treat, disinfect, and distribute potable water for public use and to collect, pump, treat, disinfect, and dispose of wastewater. For many years, the population suffered many diseases, such

as diphtheria, typhoid fever, and cholera because of unsafe water. Many streams, rivers, and lakes were badly polluted making them unfit for drinking, boating, swimming, or fishing. The construction and operation of water treatment systems and water pollution control facilities have eliminated many of these problems.

Water quality control operators are the people who practice the art and science of controlling, operating, maintaining, and managing water supply and wastewater treatment systems. The water quality control operator is responsible for protecting the health and welfare of the population by assuring that treatment systems perform properly and produce safe water all the time. Water quality control operators make sure that people don't get sick from drinking water and make sure that our streams, rivers, and lakes are not polluted. They make sure that water is clean and safe for use in recreation, as water supply sources, and for other purposes. Because the responsibilities are so great, Illinois and most other states require that water quality control operators be licensed before they can operate a plant.

The water quality control operator operates and maintains water treatment equipment; controls processes by adjusting flows, chemical additions, and treatment processes; performs laboratory tests to check on the quality of the water and to determine how the treatment plant must be controlled; maintains records on plant and equipment performance and reports to the public and state regulatory agencies on water quality.

### WHY CONSIDER A CAREER AS A WATER QUALITY CONTROL OPERATOR?

Based on data from the Illinois Environmental Protection Agency, Illinois water supplies and wastewater treatment facilities will need as many as 400 additional trained and certified operations personnel each year. This is a conservative estimate because it does not include the needs of industrial facilities and other potential employers of trained water quality control operators.

The key word to this is "trained" personnel. The ERTC's Water Quality Control Operations training program trains students for entry-level positions as water quality control operators. In 1980, starting salaries for water quality control operators ranged from \$800 to \$1,200 per month (\$9,600 to \$14,400 annually). Water quality control operators who, with work experience advanced to the position of superintendent, earned an average salary of \$21,915 in 1980.

ERTC training prepares technicians who will be responsible for the day-to-day operation, control, and maintenance of water quality control facilities. ERTC training is task oriented and stresses development of operational skills through hands-on practice.

### CERTIFICATE OF COMPLETION IN WATER QUALITY CONTROL OPERATIONS

This ERTC program, which can be completed in only four quarters (one year), includes training in both water supply and wastewater treatment operations. Students receive classroom and laboratory instruction and practice operations in hands-on training on the 30,000 gallon per day pilot plants, which are located in the ERTC facility, and the 300,000 gallons per day, full-scaled conventional activated sludge wastewater treatment plant which the ERTC operates for SIUE. In the final quarter of study, trainees are placed in

treatment facilities for ten weeks to gain actual work experience.

Graduates of the program receive a Certificate of Completion from Southern Illinois University at Edwardsville and meet all educational requirements for licensing as a water quality control operator by the Illinois Environmental Protection Agency.

### **Curriculum for Certificate of Completion Program**

The ERTC program in Water Quality Control Operations stresses hands-on training. The theoretical aspects of water quality control presented in lecture sessions are supplemented by actual experience in laboratories, shops, and treatment plants. Practical experience in all facets of water supply and wastewater treatment processes, operations, maintenance, quality control, and administration are provided. The curriculum, which provides 1,660 total contact hours of instruction, is divided into the following areas:

#### **Water Supply Operations (360 hours)**

This series of courses offers instruction in water treatment methods, equipment, maintenance, and process control. Hands-on training using the ERTC pilot facilities is a major part of the course sequence. Classroom and laboratory instruction is supplemented with field trips to water supply systems.

#### **Wastewater Operations (360 hours)**

This series focuses on the operations, maintenance, equipment and process control of wastewater treatment plants. The ERTC pilot facilities will be utilized extensively for hands-on training. Field trips to operating wastewater treatment systems supplement classroom and laboratory sessions.

#### **Water Quality Control Laboratory Testing (278 hours)**

All testing requirements for both water and wastewater treatment facilities are taught. Hands-on training is provided for each testing parameter required for monitoring, reporting, water quality control, process control, and operations in both water supply and wastewater treatment systems.

#### **Water Quality Control Facilities Maintenance (262 hours)**

This series stresses maintenance of mechanical, electrical, and instrumental equipment in water quality control facilities, as well as collection and distribution systems. The ERTC pilot facilities are used for these courses. Hands-on training is a key element in this series of courses.

#### **Supervised Work Study (400 hours)**

During the final quarter of the water quality control operations program, students will be placed in a local treatment facility. This supervised work experience will expose students to all facets of systems operation.

#### **Winter Quarter**

|                                     |    |    |    |
|-------------------------------------|----|----|----|
| ERTC 201 Wastewater Operations II   | 4  | 4  |    |
| ERTC 202 Water Supply Operations II | 4  | 4  |    |
| ERTC 203 Wastewater Laboratory      | 2  | 4  |    |
| ERTC 204 Water Supply Laboratory    | 2  | 4  |    |
| ERTC 205 Electrical Maintenance     | 3  | 4  |    |
| Total                               | 15 | 20 |    |
| Total Contact Hours per Week        |    |    | 35 |

#### **Spring Quarter**

|                                      |    |    |    |
|--------------------------------------|----|----|----|
| ERTC 301 Wastewater Operations III   | 4  | 6  |    |
| ERTC 302 Water Supply Operations III | 4  | 6  |    |
| ERTC 305 Instrumentation Maintenance | 3  | 4  |    |
| ERTC 308 System Maintenance          | 4  | 4  |    |
| Total                                | 15 | 20 |    |
| Total Contact Hours per Week         |    |    | 35 |

#### **Summer Quarter**

|                                |                                |  |    |
|--------------------------------|--------------------------------|--|----|
| ERTC 400 Supervised Work Study | 40 hours per week for 10 weeks |  |    |
| Total Contact Hours per Week   |                                |  | 40 |

### **Admission Requirements**

Because this is not a program leading to a baccalaureate, master's, or doctoral degree, formal entry into Southern Illinois University at Edwardsville is not required for admission into the ERTC's Water Quality Control Operations Program. Admission is considered on an individual basis. ERTC considers the total individual in granting admission to the program. We do not require that you have completed high school or a G.E.D. program, but past academic performance is considered in admissions. We do require that you are a "mature adult" when you apply.

There are no required admission tests, although students are given placement tests in the English and mathematical skill areas. Students with deficiencies in these areas may be required to take remedial classes.

### **Program Orientation**

An Orientation Session, which is held the week before classes begin, helps new students adjust to the campus community quickly and comfortably so that academic and social experiences at the University and ERTC will be as rewarding as possible. The orientation program will provide all required procedures that new students must complete before starting classes, including placement testing, a tour of the SIUE campus, and all other information about special services provided for students by the University. Specific information about this orientation program will be sent when you apply for admission.

### **Class Enrollment**

Enrollment is limited to 40 students per academic year. Entry into the program is in the fall quarter only.

### **Program Retention**

Satisfactory progress in completion of program requirements will be required for retention in the Water Quality Control Operations program.

### **Opportunities for Part-Time Students**

In addition to the program in Water Quality Control Operations for full-time students, the ERTC also offers separate certificates of completion in Water Supply Operations and Waste-

### **Course Sequence**

#### **Fall Quarter**

|                                       | Lecture | Laboratory | Total |
|---------------------------------------|---------|------------|-------|
| ERTC 101 Wastewater Operations I      | 4       | 4          |       |
| ERTC 102 Water Supply Operations I    | 4       | 4          |       |
| ERTC 103 Basic Laboratory Skills      | 2       | 4          |       |
| ERTC 105 Mechanical Maintenance       | 3       | 4          |       |
| ERTC 106 Water Quality Computations   | 3       |            |       |
| ERTC 107 Water Quality Communications | 3       |            |       |
| Total                                 | 19      | 16         |       |
| Total Contact Hours per Week          |         |            | 35    |

water Treatment Operations for persons already employed in the water supply and water pollution control industries. Persons who are working in the water quality control industries may complete the requirements for the appropriate Certificate of Completion in approximately three years of part-time study.

The ERTC offers all courses necessary to complete the requirements for a certificate of completion as a series of workshops which are conducted at various locations throughout Illinois. Each workshop is offered at least three times during the year at three different sites in the state so that persons enrolled in the program as part-time students may conveniently schedule the necessary courses. ERTC's annual twelve-month schedule of off-campus workshops is published in July of each year.

Persons interested in enrolling in the ERTC program as part-time students should contact the ERTC for more detailed information about the program and enrollment procedures.

### *Application for Admission*

Applications for admission to the ERTC program should be made directly to the ERTC. Additional information about the program and application forms may be obtained by writing to: Career Program Coordinator, Environmental Resources Training Center, Campus Box 75, Southern Illinois University, Edwardsville, IL 62026, (618) 692-2030.

**101 WASTEWATER OPERATIONS I.** First course in wastewater treatment operations. Water pollution problems and their causes are presented. Sources and characteristics of wastewater are taught. Federal and state laws, rules, and regulations applicable to wastewater treatment plant operation are discussed. Normal operation and preventive maintenance for collection systems, preliminary treatment devices, primary treatment devices, and disinfection are taught. Biological treatment principles and process control are introduced. Proper operation and maintenance of stabilization ponds and small activated sludge plants are learned. Course includes field trips to orient the student to wastewater treatment processes and their operation.

**102 WATER SUPPLY OPERATIONS I.** First course in water supply operation covers sources and characteristics of water, common water supply treatment processes, and the potable water distribution system. Federal and state laws, rules, and regulations applicable to water treatment plant operations are discussed. Water distribution, storage, corrosion control, fluoridation, disinfection, water quality, and water analyses are taught. Facility management, records, and reporting are addressed. The course includes field trips to orient the student to water treatment processes and their operation.

**103 BASIC LABORATORY SKILLS.** This water and wastewater laboratory course develops basic skills, volumetric, colorimetric, and gravimetric techniques used in the water and wastewater analyses. Students learn laboratory procedures in hands-on training sessions. Laboratory safety, proper care and use of glassware, equipment and chemicals, and record keeping are stressed.

**105 MECHANICAL MAINTENANCE.** In hands-on shop sessions, students learn to maintain and repair centrifugal and positive displacement pumps and other mechanical equipment found in water and wastewater plants. Principles of pump operation and maintenance are taught. Preventive and corrective maintenance procedures, which include problem diagnosis and lubrication, are stressed. Piping, valves, and connections are discussed.

**106 WATER QUALITY COMPUTATIONS.** Reviews basic math principles including addition, subtraction, multiplication, and division of whole numbers, fractions, decimals, and percents. Averaging numbers, ratios, proportions, and significant figures are also reviewed. Conversions, areas, volumes, and use of graphs are taught. Word problems, solving simple equations, velocity, and flow calculations are taught. Water and wastewater system process control calculations are introduced. The student learns to calculate detention time, efficiency, weir overflow rate, surface settling rate, chemical dosage, hydraulic, and organic loading, solids inventory, F/M ratio, MCRT, and sludge age.

**107 WATER QUALITY COMMUNICATIONS.** Teaches the basic communication skills required by the operator of a water quality control facility. Topics include improving basic reading skills, grammar, spelling, and written and oral communication skills. Technical writing skills are developed.

**201 WASTEWATER OPERATIONS II.** Second course in wastewater operations deals with the modes of operation, process control testing, operating strategies, and troubleshooting of the activated sludge process, fixed media systems, aerobic and anaerobic sludge digestion, and solids handling systems (drying beds, lagoons, and land application). In hands-on training sessions students operate the ERTC pilot facilities and learn to apply basic principles to actual operations. The SIUE wastewater treatment plant is also used to provide practical experience in operations.

**202 WATER SUPPLY OPERATIONS II.** Second course in water operations teaches solution mixing, preliminary treatment, ground water sources, iron and manganese control, filtration, ion exchange softening, process water disposal, laboratory and operating data interpretation, and system management as they relate to Class C and B water treatment facilities in the state of Illinois. Students operate the ERTC pilot facilities in hands-on laboratory sessions. Field trips to operating facilities are included.

**203 WASTEWATER LABORATORY.** Provides hands-on training in the following wastewater analyses: Biochemical Oxygen Demand, Chemical Oxygen Demand, Fecal Coliform, Phosphorous Determination and Total Kjeldahl, Ammonia, Nitrate and Nitrite Nitrogen. Laboratory management, quality control, and microscope techniques are also taught.

**204 WATER SUPPLY LABORATORY.** Provides hands-on training in the following water analyses: Iron, Manganese, Fluoride, Chlorides, Sulfate, Conductivity, Hardness, Magnesium, Free Carbon Dioxide, Threshold Odor, Color, Total Coliform, and Orthophosphate. Laboratory management, jar testing, and microscope techniques are taught.

**205 ELECTRICAL MAINTENANCE.** Teaches motors and their control panels. Proper operating conditions for relays, magnetic contactors, motor protective devices, and other electrical components are taught. Use of electrical testing equipment to analyze and troubleshoot electrical systems is practiced in hands-on shop sessions. Students learn to read and use electrical schematics and wiring diagrams.

**301 WASTEWATER OPERATIONS III.** Final course in the wastewater operation series covers operation and maintenance of sludge dewatering systems (vacuum filtration, belt filtration, and dissolved air flotation), sludge disposal (land application, land fills, and incineration), tertiary treatment systems (sand filtration, carbon adsorption, nitrogen removal, chemical precipitation, reverse osmosis, and ion exchange), records and reporting systems. The ERTC pilot facilities and SIUE waste treatment plant are used in the hands-on training sessions in this course.

**302 WATER SUPPLY OPERATIONS III.** Final course in water supply operations teaches operation and maintenance of Class A water facilities in the state of Illinois. Surface water treatment, chemical feeding, coagulation and sedimentation, taste and odor control, filtration, softening and process waste disposal are taught. Laboratory data interpretation in the operation of Class A facilities is stressed. In hands-on laboratory sessions, students operate the ERTC pilot facilities. Field trips are included in the course.

**305 INSTRUMENTATION MAINTENANCE.** Teaches application, calibration, maintenance, and operation of instruments and control systems in the water and wastewater industries. Operation and maintenance of primary sensing and sampling devices, recording, indicating, transmission, and controlling equipment are taught. Hands-on training with each system is stressed.

**308 SYSTEM MAINTENANCE.** Wastewater collection and water supply distribution systems course teaches proper methods of constructing, inspecting, cleaning, and maintaining large pipe networks. Students learn to make service connections to lines found in distribution and collections systems. Legal requirements for systems are presented. Proper procedures to disinfect water lines are learned. Record keeping and reporting for collection and distribution systems are taught. Proper safety procedures in system maintenance are emphasized. Students observe and practice proper techniques during field trips.

**400 SUPERVISED WORK STUDY.** Students work in treatment facilities for a ten-week supervised work experience. This work experience is structured so that students spend a minimum of ten work days in each facet of system operation: collection or distribution system, plant operations, maintenance, and laboratory. The students prepare written and oral reports describing their experience which are presented and discussed at group meetings held at the conclusion of each two-week segment.



## **ENVIRONMENTAL RESOURCES TRAINING CENTER STAFF**

James O. Bryant, Jr., Ph.D., P.E., Director  
 Donald M. Anderson, Program Director for Water Supply  
 Operations Training  
 Alan K. Benear, Assistant Coordinator  
 Susan A. Castle, Program Director for Water Pollution Control  
 Training  
 Robert L. Hollingsworth, Coordinator  
 Richard C. Rohr, Assistant Coordinator  
 C. Thomas Wooters, Assistant Coordinator

### **OFFICE OF CONTINUING EDUCATION**

Through the Office of Continuing Education, the University offers a variety of non-traditional approaches to earning university credit, as well as continuing education programs, noncredit classes, and public service activities. Regular credit courses are offered through home study, television, and radio. Many students attend classes at off-campus resident centers or enroll in extension classes offered in their communities. Evening and weekend classes offer scheduling flexibility to students who may find it difficult to attend class during the day. For additional information about continuing education activities, contact the Director by letter (campus box 84) or by telephone (692-3210).

### **RESIDENT CENTERS**

Resident centers have been established at Scott Air Force Base, Greenville College, and at Litchfield, Illinois. Selected 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 Assistant Director for Resident Centers in the Office of Continuing Education.

### **EXTENSION COURSES**

Extension courses at off-campus sites are offered in response to specific requests in order to meet particular programming needs in area communities. Institutions, agencies, or organizations interested in extension services or individuals wishing information about extension courses should contact the Office of Continuing Education.

### **NONCREDIT AND PUBLIC SERVICE ACTIVITIES**

The Office of Continuing Education sponsors a wide variety of non-credit activities ranging from career and professional development programs to general noncredit classes for leisure and personal development. The EDUCARD program is a public service which allows individuals not enrolled at the University for credit to attend selected university classes on a space-available basis at a very modest fee. In addition, community service programs serve various groups in area communities including youth, women, and senior citizens.

### **OFFICE OF CONFERENCES AND INSTITUTES**

Conferences and Institutes provides specialized program-planning services and meeting arrangements to private businesses, professional organizations, governmental agen-

cies, and community groups. The attractive, convenient, well-equipped facilities of the University campus provide an excellent setting for all types of meetings and special events. On-campus housing for groups is available at various times during the year. Call Conferences and Institutes (692-2660) for additional information.

### **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 CAMPUS**

The East St. Louis Campus of SIUE is located at 411 East Broadway in East St. Louis. It offers the first two years of a baccalaureate program, thus making it possible for students to enter a degree program at less cost and in a familiar setting. In Fall 1981, the focus of the academic offering of this campus of SIUE will change to capstone baccalaureate degree programs in both traditional and newly developed urban-oriented fields of study. Degree programs in home economics and medical records administration are already under review and will be offered when approved. Other proposed programs concern mass transportation management, allied health fields, and the administration of justice: law enforcement. The East St. Louis Campus of SIUE is the base of many University activities in East St. Louis and Metro-East. It provides the classrooms and laboratories for university credit courses, as well as meeting rooms and other facilities for community meetings, workshops, and seminars, many of which are planned and directed by faculty and personnel as part of the University's commitment to community and public service.

### **ACADEMIC PROGRAM**

The Experiment in Higher Education (EHE) curriculum represents the University's general studies program for the freshman and sophomore levels through courses focusing on knowledge and information which help the student understand his environment. The EHE curriculum is designed to (1) provide a flexible academic program which includes a broad knowledge base, acquirement of academic skills, and on-job training experience; (2) equip students with the necessary technical skills to render direct service to the community in such areas as management, research, and technical assistance. The objectives of EHE is to present credit courses with curriculum content vital to the urban American.

Students completing the EHE curriculum should be qualified (1) to complete the last two years of a baccalaureate program at SIUE or any other university of their choice; (2) compete academically with other students at any university; (3) devise new approaches to survival in the society; (4) affirm his/her identity and sustain a positive self-concept; (5) understand better the relationships between self and the larger society; (6) think, read, and write effectively; (7) analyze critically and present solutions to the problems created by the society; (8) understand the basic social institutions; (9) understand and participate in the cultural arts; (10) maximize personal creative potential.

The work-study program conducted by EHE is designed 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; (3) give immediate and personal confirmation to the fact that education is applicable to everyday living. The work-study situations are designed to develop academic and social skills in addition to aiding in defraying educational costs.

Other features of EHE include academic advising, personal and career counseling, tutoring in all subjects, and a Learning Resources Center.

## COMMUNITY SERVICE PROGRAMS

The East St. Louis Campus of SIUE is the source of many community service programs, academic and cultural, some of which initiate within the University and others which respond to requests for University assistance. Faculty and personnel are active in planning or assisting in the planning of many workshops, conferences, seminars, and programs designed to aid the citizens of Metro-East to enhance their life-style, to understand and cooperate with their city government and municipal services, to utilize the many state and federal agency services available to them, and to function as aware and enlightened citizens in the general society.

*The Performing Arts Training Center (PATC).* This community service component provides a unique approach to motivating and stimulating the unchallenged youth and adults of East St. Louis to develop alternative value systems and life styles through understanding and participating in the cultural and performing arts. The PATC is open to all residents of the area from child to adult age, and each participant is incorporated into the activity to the fullest extent possible. SIUE students from both campuses participate, but University enrollment is not required for entering into the PATC activity.

The unit sponsors two performing groups: The Performing Company and the Unity Ensemble. The Performing Company is concerned mainly with dance and interpretation of ethnic traditions and expressions of various celebrations and moods. This Company has gained a national reputation for excellence. The Unity Ensemble is concerned with dramatic intermingling of music, drama, and dance. The two groups maintain an active public service schedule of performances in the area schools which serve as intense motivational stimuli for young observers to stretch their horizons and develop their own creative potential.

*Project Upward Bound.* Upward Bound is a federal program funded by the U.S. Office of Education designed to aid students in the eleventh and twelfth grades to realize and develop their capacity for college-level education. Upward Bound students complete their secondary education through Project classes held at the East St. Louis Campus and taught by Project faculty. The classes, which stress capability in language arts, science, and mathematics, meet five days a week for four quarters of the University year. Cultural enrichment, counseling, tutoring, and academic advisement complement the academic work of motivating and preparing the student for baccalaureate study. Project entry dates are June and January. Information concerning admission can be obtained from the Office of Special Programs.

*Science Awareness: Science Academy.* The Science Acad-

emy is a National Demonstration Upward Bound Project funded by the U.S. Office of Education. It is an alternative high school program for the eleventh and twelfth grades which is designed to provide highly motivated and capable students with the essential background in science, language arts, communications skills, and mathematics to enter and succeed in science-based baccalaureate fields of study. Students take their academic classes at the East St. Louis Campus, which is centrally located, but can still participate in social and extra-curricular activities at their home schools which accept the Academy credits toward the high school diploma. Some courses carry University credit which will be assigned upon matriculation. The ultimate objective of the Academy is to increase the number of minority persons engaged in professions and careers based on the sciences. The format of the Science Academy has been accepted by HEW as a model to be disseminated nationally for implementation by postsecondary schools in urban areas.

*Music Program.* The East St. Louis Campus offers instruction in music appreciation and performance, both credit and non-credit, to SIUE students, area citizens, and the Upward Bound and Science Academy students. This academic and community service has been made possible by the addition to the staff of two nationally acclaimed musician-artists who conduct classes and offer private lessons in performance. As an extension of community service, the Music Unit articulates with the area high schools in piano and band work, and is presently engaged in establishing a city band for East St. Louis.

## EAST ST. LOUIS CAMPUS 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 product, 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 requirement. 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 application 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 CAMPUS FACULTY

Philip Anala, M.A., Instructor of Experiment in Higher Education

Wilbert Barbee, B.S., Instructor of Experiment in Higher Education

Emmet Beetner, M.S., Visiting Lecturer, Science Awareness

Doris Bennett, B.S., Visiting Lecturer, Performing Arts Training Center

Edward L. Brown, B.S., Visiting Lecturer, Performing Arts Training Center

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Southern Illinois University at Edwardsville is an equal opportunity affirmative action employer and administers all of its educational and employment programs in conformity with State and Federal laws prohibiting discrimination based upon sex, race, national origin, age, handicap, and other proscribed categories, including Title VI (1964 Civil Rights Act) and Title IX (Higher Education Act), Title IV (General Education Provisions Act), Section 504 of the Rehabilitation Act of 1973, and the Illinois Student School Records Act. Inquiries regarding affirmative action in admissions, administration, and employment should be directed to the Affirmative Action Office. Inquiries regarding the Family Educational Rights and Privacy Act of 1974 or the Illinois Student School Records Act should be directed to the Office of the General Counsel.

Under the Family Educational Rights and Privacy Acts all students have the right to inspect and review official University records in accord with provisions of the aforementioned Act and within guidelines of the University implementing that Act.

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

In cases where students have filed timely written notice that they object to the release of any or all items of "directory information," the specified items will not be released to any person. The notification must be in the form of a letter to the Director of Admissions and Records and must list the items the student wishes to have withheld. Such objection must be filed as directed by the notice published in the *Alester* at the beginning of the academic term in which it is to be effective and, once effective, it remains so until the deadline date for notice of objection in the Fall Term of the next academic year.

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