Ursinus College
1981-1982

CATALOG VOLUME LXXIX

JANUARY 1981
Ursinus College is located in Collegeville, a borough in Montgomery County, Pennsylvania, twenty-five miles northwest of Philadelphia and just a few miles from the Norristown and Valley Forge exits of the Pennsylvania Turnpike. U.S. Route 422 and Pennsylvania State Highway 29 intersect at Collegeville.

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URSINUS COLLEGE CATALOG

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On the cover is the tower of Pfahler Hall of Science, built in 1932, named in honor of famed radiologist George E. Pfahler. It was the setting in the 1930s for the research of Dr. John Mauchly, then Professor of Physics, which led him to co-invent ENIAC, the first computer in history.
Ursinus College
1981-1982

CATALOG NUMBER

For The

ONE HUNDRED AND TWELFTH ACADEMIC YEAR

COLLEGEVILLE, PENNSYLVANIA 19426
JANUARY 1981
CORRESPONDENCE WITH URSINUS COLLEGE

Communications with the College should be addressed to the appropriate administrative officer.

GENERAL COLLEGE MATTERS
The President

GIFTS
Director of Development

PUBLICITY, PUBLICATIONS
Public Relations Director, Alumni Secretary

ACADEMIC STANDING OF STUDENTS AND REQUESTS FOR TRANSCRIPTS
The Dean of the College

ADMISSIONS
The Dean of Admissions

FINANCIAL AID
The Financial Aid Officer

EVENING SCHOOL
The Dean of Continuing Education

PAYMENT OF BILLS
The Treasurer's Office

STUDENT EMPLOYMENT
The Director of Student Financial Aid

PLACEMENT OF GRADUATES
The Director of Career Planning and Placement

STUDENT LIFE
Dean of Students

SUMMER SCHOOL
The Dean of the College

ALUMNI AFFAIRS
Alumni Secretary

The Post Office address is Collegeville, Pennsylvania 19426

The College telephone number is 489-4111 (Area Code 215)

Visitors to the College are welcome. Student guides are available when the College is in session. The offices of the College are open Monday through Friday 9-12 and 1-5. The Office of Admissions, located in the Administration Building (Corson Hall), is open on Saturdays 9-12, but closed on Saturdays from June 15 to Labor Day. Applicants for admission are expected to write for an appointment.

Information regarding highway routes to Collegeville will be found elsewhere in the Catalog.
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The mission of Ursinus College is to develop independent and responsible individuals who are prepared for a creative and productive role in a changing world through a program of liberal education.
Ursinus College is an independent, four-year liberal arts college with a tradition of academic excellence reaching back 112 years. It has about 1100 students, 60 per cent of whom are men. More than 900 students are residents in College dormitories. The others live at home and commute from surrounding areas.

Under a curricular program beginning in September 1979, all students encounter a lively process of general education while working in one of 18 major fields. They also have an opportunity to take minor concentrations in areas outside their major to allow for career options or for greater intellectual breadth or depth.

More than two-thirds of the members of the teaching Faculty hold doctoral degrees. Faculty members, who engage in research, are committed first to teaching. Learning takes place in a friendly but challenging environment.

While the campus of some 140 acres lies beyond the metropolitan area, it is less than an hour from central Philadelphia by high-speed expressway.

In the past decade the physical facilities have undergone a dramatic improvement with the addition of a men's dormitory, library, life science building, administration building and physical education facilities.

A high percentage of Ursinus students enter graduate schools. Alumni are leaders in civic and cultural life, and they are found in key positions in industry and the professions. Wherever they are, they bring a special attitude toward life, at once critical and creative, that marks them as Ursinus men and women.

Ursinus College is related to the United Church of Christ and has been church-related since its founding in 1869. The College was established by pastors and laymen of the German Reformed Church, later known as the Reformed Church in the United States, from 1934 to 1957 known as the Evangelical and Reformed Church, and since 1957 known as the United Church of Christ.

**HOW URSINUS BEGAN**

The beginning of educational work on what is now the campus of Ursinus College dates back to the construction of a primitive schoolhouse built of logs two centuries ago. The ancient building was razed in 1832 when Todd's School was built in the town of Perkiomen Bridge, now Collegeville. In 1848 Freeland Seminary was opened on a tract adjacent to Todd's School. During the following two decades many hundreds of young men were educated here.

In 1867 a group of men, members of the German Reformed Church, actuated by a desire to serve the interests of higher education and of evangelical Christian religion, laid plans to establish a college where, to quote their words, young men could be "liberally educated under the benign influence of Christianity." They chose as the name of the College that of the distinguished...
sixteenth-century scholar and reformer, Zacharias Ursinus of the University of Heidelberg. In 1869 the charter was granted by the Legislature of Pennsylvania. The buildings of Freeland Seminary were bought, and instruction was begun on September 6, 1870. Women were admitted to the College for the first time in 1881.

Coincident with the founding of the College was the establishment of a preparatory department as a successor to Freeland Seminary. The preparatory school was called Ursinus Academy and was operated as such until 1910, when it was discontinued.

COLLEGE PRINCIPLES AND MISSION

Ursinus College is a Christian, coeducational, liberal arts college which seeks to help the student to understand and to emulate excellence in scholarship and in conduct. Although in recent decades the College has extended its work to include the preparation of men and women for a variety of professions, the College continues to emphasize the fact that however varied and specialized the changing needs of the day, the fundamental needs of man remain constant. Each student, whatever his major, is required to study a core of subjects considered essential for a liberally educated person.

The mission of Ursinus College is to develop independent and responsible individuals who are prepared for a creative and productive role in a changing world through a program of liberal education that cultivates the following:

1. Familiarity with the subject matter and methods of the major divisions of learning, combined with intensive knowledge of at least one major discipline.
2. A facility for making independent and responsible value judgments.
3. A spirit of inquiry and intellectual flexibility.
5. A heightened understanding of human nature, enlarged by compassion and moral obligation.
6. Ideals of morality and service consonant with the Christian character.
7. A comprehension of our natural and social environment and our cultural heritage.
8. A sense of sharing in a community enterprise.

Ursinus College, in conformance with its own founding charter and with applicable legislation, does not practice discrimination on the basis of sex, race, religion, color, creed, national origin or handicap in such matters as admission, educational programs or activities, housing, financial aid, employment or employee benefits. Please refer to page 149 for further details.

Students at Ursinus share the freedom of inquiry and the respect for the individual which are at the heart of a good liberal education. They also share the responsibility for maintaining the order and civility needed for learning and for personal growth. The College expects that when students decide to enroll they will abide by all the rules of the College. Should students find that they cannot willingly obey the rules, the College expects that they will wish to withdraw. The Dean’s Office will assist any such students in good standing to transfer to a college of their choosing.

The College reserves the right, through its established procedures, to modify the requirements for admission and graduation; to change the arrangement or
content of courses, the texts and other materials used, the tuition and other fees; to alter any regulation affecting the student body; to refuse admission or readmission to any student at any time, or to require the withdrawal of any student at any time, should it be deemed in the interest of the College or of the student.

Ursinus College is a member of the National Association of College Admissions Counselors and subscribes to the Statement of Principles of Good Practice.

CULTURAL ENVIRONMENT

Students at Ursinus have the advantages of living in a small town. At the same time they are close enough to New York and Philadelphia to see plays and operas, to hear some of the greatest symphonic music in the world, to visit museums and historical sites, and to observe the urban scene at its liveliest.

Ursinus is located a few miles from Valley Forge, in the heart of a region which is rich in historical tradition. In Colonial days this region was a center of the cultural and political development of America.

ACCREDITATION

Ursinus is a member of the Association of American Colleges and is on the approved list of the Middle States Association of Colleges and Schools, the American Association of University Women, the American Chemical Society, and has been given program approval by the Department of Education of the Commonwealth of Pennsylvania for the certification of teachers.

DEVELOPMENT

On June 30, 1980, Ursinus completed a four-year development program, ADVANCE UR SINUS 76/80, for the improvement of the College. A total of $5.9 million was raised, 34 per cent more than the original goal of $4.4 million. The program was headed by a committee of the Board of Directors. Two earlier development campaigns in recent years also were successfully conducted—the All-Ursinus Anniversary Drive (1967-1970) and the Century II program (1970-1975).
Ursinus gives great emphasis to the quality of student life for both resident and day students. Our objective is to help each student grow in independence and responsibility. Students are encouraged to take an active role in the life of the campus community. They have many opportunities to contribute to group decisions, to practice leadership, to sort out their own priorities and make personal choices. After an extensive study by a task force that included students, faculty members, administrators and Board members, many steps were taken in the 1978-79 academic year to enhance still further the educational effectiveness of residence life, social activities, counseling and advising.

The entire student life program is administered by the Office of the Dean of Students, which includes the Dean of Students, three Associate Deans and about thirty student resident assistants.

**COLLEGE UNION**
The College Union, located in the former library building, is the major social center on the campus. It gives coherence and momentum to student social activities. Through its all-student program board, it schedules cultural, social and recreational events. The College Union serves as a unifying force in the lives of students and encourages an enduring regard for and loyalty to Ursinus.

**RELIGIOUS LIFE**
Voluntary worship services and other religious programs are held on the campus under the supervision of the Campus Minister of the College. Student religious life centers in the Meditation Chapel, a convenient meeting place for worship and social gatherings in Bomberger Hall.

Students are encouraged to participate in the life of a Collegeville area congregation of their own choice.

**MEDICAL SERVICE**
Resident students are entitled to ordinary medical care for minor accidents and ailments contracted while enrolled at the College. All care for the sick is under the direction of the College physicians and their decisions concerning the disposition of cases are final. The College reserves the right to enforce quarantine, and to require the removal from the campus of students who require extraordinary care. Transportation to home or hospital is the student's responsibility.

College physicians will consult with students in the College Dispensary during regular office hours and will visit patients regularly who are confined to the infirmary where bed care is provided for up to six days per semester. Bed care in excess of six days in a semester will be charged for at the rate of $15.00 per day.
Students requiring allergy injections must present a signed permission slip from their personal physician and from their parents. A charge of $1.00 will be made for each allergy injection administered by infirmary personnel. Only medication prescribed by licensed physicians will be administered.

Students are responsible for the cost of laboratory tests, x-rays and prescription medications not carried by the College infirmary.

Regular infirmary hours are from 8:00 A.M. to 4:00 P.M. on weekdays. Nurses are available for emergency care 24 hours a day. Except for extreme emergencies the student seeking medical attention is responsible for reporting to the infirmary for treatment. When emergency treatment is required, the College will make every effort to provide it. The cost of treatment by physicians and nurses not on the College staff is to be borne by the student.

ROOMS AND MEALS
In order to fulfill its mission, Ursinus requires that all students who do not live in their own homes reside in college dormitories and take their meals in the College dining hall.

Each resident student supplies his own towels, pillow, two pairs of sheets for a single bed, mattress protector, a pair of pillow cases, a pair of blankets, and a bedspread. Linen rental service is available.
Students, except those whose presence is needed for service or attendance at commencement, are required to vacate their rooms immediately following the second-term examinations.

ATHLETICS
Ursinus recognizes the physical, social, and moral benefit derived from athletic activity and accordingly offers a well-balanced sports program open to all. Men’s intercollegiate competition takes place in football (varsity and junior varsity), basketball (varsity and junior varsity), soccer (varsity and junior varsity), wrestling (varsity), swimming, cross country, golf, baseball (varsity), track and tennis. In addition to this intercollegiate program, intramural games are played. Intramural athletics for men include touch football, basketball, volleyball, wrestling, softball, water polo, track, lacrosse and tennis. Club programs are sponsored in indoor track and karate.

For women students, the College supports intercollegiate competition in hockey (varsity, junior varsity and third), basketball (varsity, junior varsity), softball (varsity and junior varsity), tennis (varsity and junior varsity), swimming (varsity and junior varsity), lacrosse (varsity and junior varsity), badminton (varsity and junior varsity), gymnastics and volleyball (varsity, junior varsity). The intramural program provided additional recreational opportunities in tennis and water polo with inter-dorm competition in volleyball and table tennis. Club programs are sponsored in dancing, bicycling and sailing.

The College is a member of the Middle Atlantic Conference; the Pennsylvania Association for Intercollegiate Athletics for Women; the Eastern Association for Intercollegiate Athletics for Women; the Association for Intercollegiate Athletics for Women; and the National Collegiate Athletic Association. These organizations govern the conduct of Intercollegiate Athletics at member institutions.

ORGANIZATIONS
Students find many opportunities for education and enjoyment through a large number of organizations. All are approved by the Faculty and are supervised by the Committee on Student Activities and the Dean of Students’ Office. In addition, members of the Faculty serve these groups as advisers. Student life on campus is governed by the Ursinus Student Government Association under the direction of an Associate Dean of Students. Members of the student governing organization are elected by the student body.

Numerous religious and social activities are planned and sponsored by religious groups under the direction of student leaders as well as by the administration of the Campus Minister.

Other organizations stimulate the interest of students in particular areas of study or in future occupations. Among them are the Brownback-Anders Pre-Medical Society, the Beardwood Chemical Society, the Biology Club, the Spanish Club, the Haines-Barnard Pre-Legal Society, G. Leslie Omwake Education Club, Socratic Club, Psychology Club and the Economics Club. Interest in athletics and campus spirit is fostered by the Women’s Athletic Association and the Spirit Committee. There are the following national honor societies: Beta Beta Beta, the Biological Honor Society stimulates interest,
scholarly attainment and investigation in the biological sciences and promotes information and interpretation among students of the life sciences; Omicron Delta Epsilon is the international honor society in Economics; Pi Gamma Mu, the national honorary society, offers scholastic recognition to outstanding junior and senior students who are pursuing courses in social science; and Psi Chi, the national honor society in psychology, and an affiliate of the American Psychological Association and the Association of College Honor Societies. Outstanding junior men may be elected to Cub and Key and junior women to the Whitians. Campus Gold is made up of a group of students who work on service projects on the campus and in the community.

A large and varied program of dramatics is sponsored and carried out by Protheatre, which presents two major productions a year in addition to various group productions. There is an Ursinus chapter of Alpha Psi Omega, a national honorary dramatics fraternity.

Music plays a large part in the life at Ursinus. Choral music is represented by the Meistersingers, which offers concerts on and off campus, including a one-week tour each year; the Ursinus College Choir, which offers a wide variety of literature from popular to major works, and whose annual presentation of Handel’s Messiah is an outstanding musical event each year; and I Madrigalisti, a select, special-interest group. Instrumental music is offered by the Concert Band, the College Pep Band and the Chamber Orchestra. Most groups include non-student members of the Ursinus community. Finally, there is a chapter of Pi Nu Epsilon, the national honorary music fraternity.

There are 13 local social organizations on the Ursinus campus. The fraternities are Sigma Rho Lambda, Zeta Chi, Alpha Phi Epsilon, Delta Mu Sigma, Pi Omega Delta, Beta Sigma Lambda, Delta Pi Sigma, and Alpha Phi Omega, the national service fraternity. The sororities are Omega Chi, Alpha Sigma Nu, Kappa Delta Kappa, Phi Alpha Psi, and Tau Sigma Gamma.

The wall of Wismer Hall is a popular gathering place.
STUDENT COMMUNICATIONS

The Grizzly is the Ursinus newspaper. It is managed by a publications committee consisting of student and faculty representatives and is edited and written entirely by the students. The Editor-in-Chief, the Associate Editors, and the Business Manager are elected by the committee on the basis of merit and the staff is selected by the editors on the same basis. The paper is of interest to students and alumni as a record of life at Ursinus.

The Lantern serves as an outlet for those interested in creative writing and art. It is written and edited by an all-student staff under the direction of a member of the Faculty Committee on Student Publications. It is published twice a year.

The Ruby, the Ursinus yearbook, is published by the Senior Class each year. It is a volume presenting an intimate pictorial account of the year’s activities, not only of the Class, but of the entire College.

The Ursinus College Bulletin, official publication of the College, appears four times a year and includes the annual report of officers.

The Catalog appears once each year.

WRUC, the campus radio station, is designed to present a varied agenda of music, from classical to rock, and campus and world news. The station is not operating during the 1981-82 academic year.

The 140-acre campus offers sanctuary for quiet moments of study.
THE CAMPUS SETTING

A major building program, undertaken to celebrate the Centennial of the College, in recent years has transformed the Ursinus campus into a modern and highly attractive setting for liberal education.

Wismer Hall, completed in 1965, is one of the chief points of activity on campus. It contains the student dining hall, a lounge, lecture hall, language laboratory, and a number of classrooms and seminar rooms. The building led in 1966 to a citation for excellence from the Pennsylvania Society of the American Institute of Architects. It is named for the late Ralph F. Wismer, '05, former Treasurer of the College and member of the Board of Directors.

Bomberger Memorial Hall, built in 1891, provides classrooms for many courses in the humanities, languages and social sciences. It also houses the College chapel, study and recreation areas. This Romanesque hall, made of Pennsylvania blue marble, is named for the first President of Ursinus, Dr. J. H. A. Bomberger. The building was made possible by the benefactions of Robert Patterson. The building was completely renovated in 1972.

Pfahler Hall of Science, built in 1932, is named in honor of Dr. George E. Pfahler, famed radiologist. It houses classrooms and laboratories for work in chemistry, physics, mathematics and geology. The building is equipped with the Elihu Thomson Memorial Telescope for astronomical observation in the Walter W. Marsteller Memorial Observatory. The development plan of the College brought extensive renovation of the building in 1971, and the expansion of Chemistry, Mathematics and Physics Departments into areas formerly occupied by Psychology and Biology, now located in the Life Science Building.

The Life Science Building opened for use in September 1970. Along with the Myrin Library and the physical education building, completed in 1972, it was financed by a special All-Ursinus Anniversary Drive that coincided with the College's 100th year. As the new home of the Psychology Department and of the Biology Department, it complements Pfahler Hall of Science. Both departments have been enabled to improve laboratory work in regular courses and to offer better opportunities for independent student research. It is the new home of the following endowed laboratories: Levi Jay Hammond Laboratory of Comparative Anatomy, the W. Wayne Babcock Laboratory of General Biology, the Anna Heinly Schellhammer Laboratory.

The Myrin Library, located at the center of the campus, is designed to support the liberal arts program of the College, as well as research and independent study. The open-stack structure houses more than 141,000 volumes, 103,000 microforms, 1,200 audio cassettes, 8,000 slides, and 700 current periodical subscriptions. It is also a selective depository for U.S. Government Documents and Pennsylvania Documents.

Study facilities for 500 persons are provided in carrels, seminar rooms, and lounges. During the academic year the Library is open 100 hours per week. Audiovisual services, the Curriculum Materials Center, the Pennsylvania Folklife Society archives, and the Ursinusiana collection also are housed in the Library.

An experienced staff of librarians provides reference service 55 hours per week to assist students in the use and interpretation of Library collections. An
on-going program of library instruction, in cooperation with the academic departments, is designed to familiarize students with research materials and appropriate search strategies.

Direct access to more than 3.7 million volumes is available through the Tri-State College Library Cooperative. A terminal connected to the OCLC bibliographic network extends access to over 2,000 research collections across the U.S. The Interlibrary Delivery Service of Pennsylvania supports interlibrary loan functions.

The Ursinus College computer center is located in Myrin Library. The timesharing facilities are linked directly to the Kiewit Computation Center at Dartmouth College. Ursinus students thereby have access seven days a week to the latest in academic computer technology, an extensive library of user-oriented computer programs, and a large staff of highly trained experts who help with computer-related problems. Dartmouth College is world-famous for the quality of its computer system, and Ursinus students are able to take full advantage of it.

Through the Dartmouth system, Ursinus has available two Honeywell 60 level 66 central processors. The system stores one billion characters on line and can handle 250 users simultaneously. The major computer languages are available. More than 1,000 academic programs from Dartmouth can be used, ranging from a world-wide economic model to foreign language vocabulary drills.

Corson Hall, the Administration Building, named in honor of Philip L. Corson, a member of the Board of Directors, and his wife, the late Helen Payson Corson, was dedicated in the spring of 1970. Located near the main entrance to the campus, it houses the Admissions Office, where candidates for entrance to the College make application. The main administrative offices are found here, in addition to a classroom and offices for some sixteen faculty members.

The D. L. Helfferich Hall of Health and Physical Education and The William Elliott Pool were dedicated October 21, 1972, Founders' Day, in honor respectively of the ninth president of Ursinus College, who now serves as Chancellor, and Dr. William Elliott, Board member, neighbor and benefactor of the College.

The physical education complex serves both men and women with three full-size basketball courts, one of them a multi-purpose section; locker rooms and team rooms; wrestling room; weight room; dance studio; classrooms; a regulation collegiate-sized swimming pool; and squash and handball courts.

Helfferich Hall is supplemented by the Utility Gym, located adjacent to Ritter Center and dedicated October 11, 1980. The Utility Gym is used for both athletic and social events.

The Ritter Center for the Dramatic Arts opened in the fall of 1980, housing a 260-seat theatre with flexible staging, a television studio and various auxiliary rooms. It was dedicated October 4, 1980, in honor of Dr. Rolland A. Ritter, LL.D., '60, and his wife, Lullis M. Ritter.

Ritter Center occupies the former Thompson-Gay Gymnasium, built in 1927. The memory of the original namesakes is specially preserved in the building. They were Robert W. Thompson, '12, and George H. Gay, '13, noted Ursinus athletes, both of whom died in their senior year at the College.
Many freshmen satisfy the lab requirement by taking the General Biology course for non-science majors.

Among the many outdoor playing fields and facilities is Price Field, named for Dr. John Price, '05, one of the great athletes in Ursinus history. Price Field complex includes the soccer field, baseball diamond, softball diamonds and football practice ground.

A second hockey field was installed to supplement the Effie Brant Evans Hockey Field at the east end of campus near Stauffer Hall. An outdoor shuffle board court and eight tennis courts are located behind Helfferich Hall.

Varsity football games and track and field meets take place at Patterson Field, named for the College's first benefactor, Robert Patterson. An eight-lane all-weather track is installed around the field.

In the spring of 1973, the College Union opened a new chapter in the social life of the campus. Designed as "the living room of the campus," the College Union is in the old Alumni Memorial Library building, built in 1922. It includes large social lounges, a recreational area in the basement, meeting rooms, a snack shop and offices for student groups.

Other structures include Super House, a residence on Main Street opposite the campus, bequeathed to the College by the late Henry W. Super, D.D., L.L.D., Vice-President and Professor of Mathematics, 1870-1891, and President, 1892-1893; Sprankle Hall, on the east campus fronting Fifth Avenue, the infirmary; The Eger Gateway, erected through the generosity of George P. Eger, of Reading, Pennsylvania, at the entrance of the walk leading from Main Street to Myrin Library; The College Store; The Power Plant, a strikingly modern
building put into operation in 1963; and the Marjorie T. Elliott House, 785 Main Street, former home of the late Dr. Edward Platte, College physician, now occupied by the President and his family. The house is named in memory of the late wife of William Elliott, a member of the Board of Directors.

RESIDENCE HALLS FOR MEN
The Brodbeck and Curtis Dormitories for Men are buildings in English Colonial style. Each building has four floors. They bear the names of esteemed benefactors of the College, Andrew R. Brodbeck and Cyrus H. K. Curtis.

Wilkinson Hall, which connects Brodbeck and Curtis Dormitories, provides additional rooms for men. It was erected through the generosity of Mr. and Mrs. Joseph C. Wilkinson.

Maples Hall, 512 Main Street; 476 Main Street; 500 Main Street; Omwake Hall, 701 Main Street; Isenberg Hall, 801 Main Street; 942 Main Street; and 944 Main Street are all residence halls for men.

The Men's Residence Hall Complex at the north end of campus, completed in 1968, houses 252 men. The main building is Reimert Hall, named in honor of the late Dr. William D. Reimert, '24, President of the Board of Directors of the College from 1961 until his death in 1969.

RESIDENCE HALLS FOR WOMEN
Paisley Hall, Stauffer Hall and Beardwood Hall are three residence halls for women. The buildings house 241 women and are located on the east campus.

Hobson House is located at Sixth Avenue and Main Street. It is used as a residence for twenty-four women.

Shreiner Hall, fronting on Main Street and facing the College campus, is a residence hall for twenty-eight women.

Duryea Hall, 612 Main Street, is a residence hall for seventeen women.

Clamer Hall, Main Street, the gift of Dr. Guilliam H. Clamer, is a residence hall for twenty-five women.

777 Main Street houses nine women.

Keigwin Hall is a residence for ten women.

Olevian Hall, 640 Main Street, is a residence hall for twelve women.

South Hall, Sixth Avenue, is a residence hall for eighteen women.

Todd Hall, 724 Main Street, is a residence hall for twenty women.

Schaff Hall is a residence hall for thirteen women.

Sturgis Hall, 26 Sixth Avenue, is a residence hall for eleven women. 624 Main Street is a residence hall for six women.

SHIPMENT OF BELONGINGS
The Maintenance Department will accept Railway Express shipments at the Maintenance Department between the hours of 8 A.M. and 4:30 P.M., Monday through Friday, one week prior to opening date providing:

1. the Maintenance Department has been notified in writing when to expect the shipment and from whom;
2. the shipment arrives prepaid.

The Maintenance Department can accept no responsibility for the condition of the shipment.
The first step in seeking admission to Ursinus College is to file an application. A form for this purpose may be obtained from the Office of Admissions. After the completed form has been returned to the College, accompanied by the $20 application fee, applicants should then request their principal or headmaster to send an official transcript of the applicant's secondary school records for the ninth grade through at least the first marking period of the senior year, including class rank, personality rating, and recommendation.

All applicants must arrange for a personal interview on campus, unless, of course, the distance makes such a visit impracticable. This requirement must be completed before the application is presented to the Committee on Admissions.

It is the responsibility of the candidate to make arrangements to take the Scholastic Aptitude Test of the College Entrance Examination Board and to have the test results sent to the Dean of Admissions.

Retention studies at Ursinus College are based on students who enroll fulltime with the expectation of graduating in four years. Of 280 freshmen enrolled in 1976, 168 (60%) were graduated in 1980. Part-time and special students are not included.
TESTS
Candidates for admission to the Freshman Class are required to take the Scholastic Aptitude Test. Foreign students must, in addition, take the TOEFL test. It is recommended that applicants take the November or December Scholastic Aptitude Test in the senior year. Although not required, Achievement tests are strongly recommended, especially in English Composition and mathematics. Full information concerning the dates of the administration of these tests can be obtained from the high school guidance office or by writing directly to the College Entrance Examination Board, P.O. Box 592, Princeton, New Jersey 08540. The C.E.E.B. number for Ursinus College is 2931.

PREPARATION
A candidate for admission to the Freshman Class must be a graduate of a secondary school.
If the applicant is a graduate of a four-year high school he should offer for admission at least sixteen units which are to be distributed as follows:

BASIC ACADEMIC CREDITS (10 units)
- English, Four years, Four Units
- Elementary Mathematics (Algebra and/or Geometry) Two Units
- Science, One Unit
- Social Studies, One Unit
- Foreign Language, Two Units in One Language

ADDITIONAL ACADEMIC CREDITS (at least 2½ Units)
- Advanced Mathematics
- Solid Geometry
- Plane Trigonometry
- Science
- Social Studies
- Foreign Language

ELECTIVES (Maximum 3½ Units)
Not more than one unit will be granted for any single elective.
- Accounting
- Drawing (Mechanical, Prepared Course)
- Stenography or Shorthand
- Business Training
- Music and Art (History or Appreciation)
- Business Law

If the candidate is a graduate of a three-year high school, he should offer at least twelve units, which should include the basic credits above. Not more than one unit may be presented from the group designated as electives.

Applicants whose preparation does not coincide precisely with the foregoing outline may in exceptional cases be admitted to the College if, in the judgment of the Committee on Admissions, they are qualified to do college work satisfactorily.
EARLY ADMISSION
A limited number of outstanding juniors who have completed all or nearly all requirements for graduation from high school may be considered for early admission. Such students will be considered only upon the strong written recommendation of the guidance counselor and with the assurance that the student will receive his high school diploma either before or upon successful completion of the freshman year in college. It is the responsibility of the applicant to have the recommendation sent to the Office of Admissions.

The admissions process is identical with the following EARLY DECISION procedure.

EARLY DECISION
Outstanding juniors may apply for admission in the late spring or during the summer preceding the senior year. The applicant should have his counselor send a transcript for the ninth through eleventh grade together with class rank, personality rating, and recommendation. He should also have junior year Scholastic Aptitude Test scores sent and arrange for an interview, preferably prior to October 1. We strongly recommend that all candidates take Achievement tests. Early decisions will be made and applicants notified in the late summer and early fall.

SPECIAL PROGRAM FOR HIGH SCHOOL STUDENTS AND SENIOR CITIZENS
Area high school juniors with good records and strong recommendations and senior citizens (those 62 years of age and over) may take regular courses for half-tuition during summer, fall, or spring terms, both day and evening. Such students must commute. Information is available in the Office of Admissions.

ENGINEERING PROGRAM
Arrangements have been made with the Engineering Schools of the University of Pennsylvania and the University of Southern California, to which a student may apply for transfer after completing three years of prescribed work toward the B.A. degree at Ursinus College.

Ursinus College will grant the B.A. degree after students have satisfied the requirements for that degree. The engineering school will grant the engineering degree on satisfactory completion of the fifth year. For the outline of the program see Suggested Programs.

Candidates for the Engineering program must present 4 years of entrance credit in mathematics.

Their background in foreign language should be such that they are capable of entering the second year of language in college. If not so prepared they may make up the deficiency in foreign language in summer school.

PLACEMENT IN FOREIGN LANGUAGES
If an entering student wishes to study in college the same language he studied in high school, the following conditions apply:

If a student has taken two or three years of a foreign language in high school he should enroll in the intermediate level of that language in College. If he is
unable to master the work at the intermediate level, he may drop back to the elementary level, but only with the permission of his instructor. Those with four or five years of a language will be assigned to an advanced course unless the requirement is waived by Advanced Placement examination.

ADVANCED PLACEMENT
Students who wish to be considered for advanced courses upon admission may submit the results of the Advanced Placement Examinations as given by the College Board. If the scores are satisfactory, the student may be advanced beyond the basic course and credit may be given toward the degree. Certain courses offer no advanced placement; therefore it is suggested that a candidate consult the Dean of Admissions if any question arises. After acceptance for degree standing, a student who wishes to receive transfer credits must receive written permission from the Dean of the College or the Dean of Admissions to take a course at another college.

COLLEGE LEVEL EXAMINATION PROGRAM (CLEP)
Another means by which incoming students may earn advance credit is through the College Level Examination Program (CLEP). These are examinations offered by the College Entrance Examination Board as a means by which colleges may offer advance credit to students who have completed the equivalent of specified college courses through special experience or study. Ursinus College offers credit only in the Subject Examinations and not in the General Examinations. The examinations are given at centers throughout the country. Applicants interested in the CLEP Program should write for a CLEP Bulletin of Information for Candidates to the Program Director, College-Level Examination Program, Box 1821, Princeton, New Jersey 08540.

SPECIAL STUDENTS
A limited number of applicants who are not candidates for degrees may be admitted as special students, providing that they have satisfactory preparation for the college courses which they wish to pursue. Special students who reside at the College must register for at least twelve hours of work in each semester. They are subject to the same regulations as other students.

TRANSFER STUDENTS
To transfer to Ursinus College, an applicant must support his application by requesting each institution he has attended, including his secondary school, to send to the Dean of Admissions a transcript of his record. In addition, a letter of personal clearance from the Dean of Students is required if the applicant has been a full-time student during the preceding year. It will be helpful if the candidate will send a catalog of the college he has been attending, marked to indicate the course he has taken. Credit will be given for courses for which we offer a reasonable equivalent and in which a grade of C or better has been earned.

A maximum of sixty two hours of work taken elsewhere will be credited to students transferring to Ursinus College.
PART-TIME STUDENTS
Non-resident students who are candidates for a degree and who wish to pursue fewer than twelve hours of work may be classified as part-time students.

NOTIFICATION OF ADMISSION
When a candidate for admission is notified of his acceptance by the College, he must make an advance payment of two hundred dollars in accordance with the provisions of the letter of acceptance. This payment is credited to his bill for the first term. If he fails to complete his matriculation, the payment is forfeited.

THE SUMMER SCHOOL
The curriculum of the Summer School is announced in the Spring, and information concerning course offerings is released. In the day sessions, courses are offered over a period of 12 weeks. A student carries only one course at a time but may enroll for a full program. The plan permits the completion of a three-semester-hour course in three weeks, two three-semester-hour courses in six weeks, four three-semester-hour courses in twelve weeks and two four-semester-hour courses in eight weeks. It is possible to carry two years of work in a language in twelve weeks for twelve semester credits.

In the evening sessions, three-semester-hour courses meet two evenings a week for $7\frac{1}{2}$ weeks. Two courses may be carried simultaneously. However, a student may not be enrolled in the evening session if he is also enrolled in either of the first two day sessions.

Student in science lab seeks answers and finds intellectual satisfaction.
Ursinus College Summer School (day sessions) is open to candidates who may be classified in the categories below upon approval of the College.

1. College Graduate (two-year and four-year).
2. Degree Candidates (Bachelor and Associate), including recent high school graduates accepted as freshmen by Ursinus or other accredited schools.
   Applicants from other institutions must have written permission from their respective institutions indicating that they will be given transfer credit for successful work in the courses selected.
3. Evening School students at Ursinus or elsewhere, with a high school diploma and with a minimum of 15 semester hours of work successfully completed (equivalent of 70 average).
   The Summer Evening School is open to students with all the above qualifications, and also to all other high school graduates.
   Applications of those whose qualifications do not fit the above categories must be acted upon by the Committee on Admissions.
   Admission to the Summer School does not carry with it an assurance of transfer to degree standing at Ursinus College. For information and application forms, address the Director, Summer School, Ursinus College, Collegeville, Pa., 19426.

CONTINUING EDUCATION
Ursinus College conducts a comprehensive educational program for students who are older than the traditional full-time Ursinus student. The Dean of Continuing Education is responsible for administering this program. Continuing Education at Ursinus, like the traditional program, has the general mission of liberally educating students for responsible leadership in our society. Because of the age and the professional orientation of continuing education students, the program has certain emphases, particularly in business, that are not found in the traditional program. There are two components of Continuing Education:
   Evening School: Founded in 1952, the Evening School is organized to make college work available to men and women employed in business, industry or teaching, and to others who may be interested. The degree programs generally emphasize courses in accounting, business administration and economics, but a strong liberal arts component is required. A considerable range of courses in English composition, English literature, history, mathematics, foreign languages and other disciplines is available.
   Full-time Ursinus students enrolled in the College may register for Evening School courses, with permission of their advisors and the Dean of the College, when class space is available. Evening School registration procedures must be followed.
   Special Programs: This area of the curriculum comprises credit and non-credit courses for students of non-traditional age. Administered by a Director, Special Programs offers new learning opportunities in short courses, workshops, and seminars, without credit, to community residents and to students on campus.
   Of equal importance, the Office of Special Programs provides counseling, support services, individualized academic advising and special tuition grants.
for qualified adult students seeking admission to day school programs, part-time or full-time. This opportunity is attractive to those who wish to re-enter college, make a beginning, change career direction or study for personal enrichment.

For information on both Evening School and Special Programs, address Dean of Continuing Education, Ursinus College, Collegeville, Pa. 19426.

CAREER OPPORTUNITIES
Ursinus College helps its students to relate their broad liberal education to the many opportunities for careers available to them. Through the advice of faculty members, the services of the Career Planning and Placement Office, and individualized career counseling by alumni of Ursinus, a student is guided toward his life's work. Among the many careers pursued by Ursinus graduates are the following.

ACOUNTING. Through a combination of courses in the day and evening, Ursinus College offers a complete series of courses in accounting and prepares students to sit for the examination for Certified Public Accountants. An increasing number of business-oriented students are preparing themselves for accounting careers.

BUSINESS. Graduates in Economics and Business Administration and other departments are employed by many types of industrial concerns, banking institutions, public utilities, transportation companies, department stores, chain stores, etc. By electing languages, students majoring in Economics and Business Administration may prepare for the growing opportunities in world trade.
CHEMICAL RESEARCH: INDUSTRIAL CHEMISTRY. The College provides opportunities for students desiring to major in Chemistry with a view to devoting their lives to some type of chemical research. Graduates find employment in the chemical industry doing pioneer work in the field of chemical research and development.

COMPUTER SCIENCE. An increasing number of Ursinus graduates are entering this rapidly growing field of employment. Majoring in Mathematical Sciences with emphasis on our Computer Science courses, is the usual path into computer work after graduation. But majors in the natural sciences and social sciences and sometimes the humanities also are entering the field.

DENTISTRY. Many graduates of the College have entered the field of dentistry. Ursinus provides the basic science program prescribed by the Council on Education of the American Dental Association.

EDUCATIONAL ADMINISTRATION. Basic courses in Education are provided which are prerequisite to the professional courses in Educational Administration offered in graduate schools of education of leading universities.

ENGINEERING. Students who wish to study Chemical, Civil, Electrical, Mechanical or Metallurgical Engineering may avail themselves of a program which is being offered at Ursinus College in cooperation with engineering schools. A student at Ursinus College may transfer to an engineering school after completing three years of prescribed work toward the B.A. degree at Ursinus.

Ursinus College will grant the B.A. degree after the student has satisfied the requirements for that degree. The engineering school will grant the engineering degree upon completion of the fifth year.

Under another program a student, after graduating from Ursinus with a major in chemistry or physics, may earn an M.S. from an engineering school in one to one and one-half years.

FOREIGN SERVICE. The American foreign service presents attractive opportunities to a limited number of young people who are willing to prepare themselves adequately for service abroad. The history and social science courses, together with offerings available in the modern languages, provide preparation for the examinations required of applicants for positions in foreign service. Upon graduation students are urged to pursue additional work at a recognized graduate school.

GRADUATE STUDY. One purpose of the curriculum of the modern liberal arts college is to prepare students for advanced study in various fields of knowledge. Preliminary study is done by the student at the undergraduate level in his chosen major field. Those intending to enter graduate schools should have a thorough grounding in their chosen field. As a reading knowledge of French and German is essential for most higher degrees, this knowledge should be acquired in the undergraduate school.

HEALTH AND PHYSICAL EDUCATION. It is possible to specialize in health and physical education and at the same time obtain a general cultural education. Health and physical education graduates meet the requirements for certification to teach in this field in Pennsylvania and other states.
JOURNALISM. A student interested in journalism should enroll in the departments of history, political science, or English and elect widely in other fields. A year at a professional school of journalism is recommended.

LAW. Leading law schools require a baccalaureate degree as one of the conditions for acceptance of candidates. A broad, cultural education is considered the best preparation for legal study. A major in such departments as history, psychology, or political science is recommended.

MEDICINE. Concentration in biology or chemistry is recommended in order to prepare students who are interested in the various aspects of medicine. Preparation for schools of osteopathy and of veterinary medicine, as well as for the regular medical schools, is provided. Students should also investigate the opportunities in the allied medical fields, such as occupational and physical therapy, in which many opportunities are being offered.

MILITARY SERVICE. Ursinus College does not have a Reserve Officer Training Corps program. However, most branches of military service send representatives to campus regularly. These military branches offer a variety of programs involving full time study at Ursinus combined with differing amounts of military leadership training during some summers. These programs lead to a commission as a junior grade officer upon graduation from Ursinus.

NURSING. Students who plan to enter the profession of nursing should register for courses in biology, chemistry, and liberal arts in order to qualify for consideration by schools of nursing. Ursinus does not give a degree in nursing but recommends transfer, after two years, to a university school of nursing.

PHYSICAL RESEARCH. A program of concentration in physics and mathematics is offered to students interested in physics as a career.

PSYCHOLOGY. Undergraduate work in psychology is designed for those who seek admission to graduate schools or who wish to enter personnel work in
industry. Undergraduate study in psychology is of assistance in the fields of teaching, guidance, law, clinical psychology, personnel and social work, nursing, and preparation for medicine.

SOCIAL WORK. A professional career in social work requires two years of graduate education in one of the approved schools of social work associated with a number of universities. There are, however, many opportunities for the untrained person holding a baccalaureate degree to find employment in both public welfare and voluntary social agencies; the former is entered through civil service examination. Positions are open in work with individuals and with groups. Many of these situations offer funded plans for graduate study upon satisfactory completion of a year of employment.

TEACHING. Secondary school teaching preparation which meets the requirements of the State Department of Education in Pennsylvania and of many other states is offered to those who look forward to a career in education. Ursinus offers programs for secondary school certification in English, French, Spanish, German, Latin, Mathematics, Mathematics-Physics, Biology, Chemistry, Physics, General Science and Social Studies. Students seeking certification in Social Studies will specialize in Economics and Business Administration, History and Political Science. Advisers should be consulted in each of these areas early in the student's college career. The program for certification for Health and Physical Education covers both the elementary and secondary fields. Students should follow the curricula which have been approved by the Pennsylvania Department of Education, a copy of which is in the hands of the advisers.

CHURCH VOCATIONS. Most leading theological schools have as a requirement for consideration for admission a degree in liberal arts. Students who are preparing for church vocations should plan a broad course of study which will include history, languages, literature, religion, and philosophy.

CAREER PLANNING AND PLACEMENT OFFICE
This office provides career counseling and placement services for all students and alumni. A vital part of this office is the Career Resources Center with its files of corporations, occupational references and careers materials. The Alumni Career Counseling Group of more than 250 alumni helps students and alumni clarify career directions and meet potential employers. Campus recruiting is conducted by business and industrial firms, by graduate and professional schools, and by governmental agencies. Career seminars and workshops are provided for students each year. This office maintains part-time and full-time employment listings, as well as placement files for students and alumni.

THE COLLEGE YEAR
The College year consists of two semesters of fifteen weeks each and a summer session of twelve weeks. Students are admitted to the College at the beginning of either semester or at the beginning of the summer session. Those who wish to accelerate their college program may attend the summer session in addition to the Fall and Spring semesters. The summer session is available to all students who wish to take advantage of it.
TUITION, BOARD, FEES

STUDENT CHARGES PER YEAR
Basic student charges at Ursinus College include tuition, room and board for resident students, activities fee and College Union fee. To meet these charges, a student is advised to consult the Financial Aid Office, which administers a comprehensive program of aid from federal, state, Ursinus College and other private sources. More than 84% of all students receive some form of assistance in paying tuition and fees. Students at Ursinus in 1980-81 received an average of $3,400 in annual financial aid.

For 1981-82, the following rates apply: Tuition, $4,450; room and board, $2,000; activities fee, $30; College Union fee, $25.

Payments are to be made as follows: New students, $200 advance payment as requested and $100 reserve deposit as indicated on bill; old students, $200 advance payment as requested. All students pay one-half annual charges in August less credit for advance payment, one-half activities and College Union fees. The second one-half payments are made in January.

Charges quoted are made on an annual basis. Billings are presented semi-annually and are due for payment no later than the date indicated on the billing. A $20 fee is charged for late payment.

When the student is a recipient of an Ursinus College scholarship award, credit will be applied in the amount of one-half the value of the annual award to each semester bill. THE COLLEGE HAS NO PLAN FOR INSTALLMENT PAYMENTS.

For those who prefer to pay tuition in monthly installments, the College offers special arrangements made with the Girard Bank of Philadelphia, the Insured Tuition Payment Plan of Boston and/or The Tuition Plan. For 1981-82 there will be a new federally supported Parent Loan Program. For additional information see page 35. These arrangements should be made early enough to assure payment of bills no later than the date indicated on the billing.

EXPLANATION OF CHARGES

APPLICATION FEE. A fee of $20 is paid by the candidate at the time he files his application. This fee is not refundable and is not applied toward the student's bill.

Special and Part-Time Students are charged at the rate of $145.00 per semester hour. If registered for twelve or more hours, full tuition will be charged.

ADVANCE PAYMENT. (a) Upon his acceptance by the College an applicant

Checks should be made payable to URSINUS COLLEGE
must make an advance payment of $200 by May 1. This payment is credited on his bill for the first term. If he fails to complete his matriculation, this payment is forfeited. (b) All regularly enrolled students must make an advance payment of $200 at such time as may be designated by the College. This payment is forfeited if the student fails to complete his registration.

FEE FOR TUITION covers classroom instruction, use of libraries, gymnasium, and the infirmary; ordinary medical attention; care by the resident nurse. Room and Board charges cover lodging for the period that classes are in session.

The College reserves the right to make reasonable adjustments in the comprehensive fee at the beginning of any term to cover possible unforeseen costs.

ACTIVITIES FEE is charged to all full-time students, and to all Special and Part-Time Students enrolled for nine or more semester hours of credit. This fee covers subscription to the Ursinus Grizzly, the Ursinus College Forum, admission without further charge to all athletic contests at the College, to College dances, and use of College athletic facilities as scheduled.

COLLEGE UNION FEE is charged to all full-time students and to all Special and Part-Time Students enrolled for nine or more semester hours of credit. This fee supports the operation of the College Union program and the maintenance of the College Union Building, and includes membership in the College Union for the period covered by the fee.

STUDENT ACCIDENT INSURANCE PLAN. A mandatory insurance plan for accidental injury is billed to each full-time student on the bill for the fall term, unless the student is first enrolled for the spring term, when a prorata billing will appear on the student's bill.

ROOM DRAWING. A previously enrolled student must pay $50 in order to qualify for drawing a room. Credit for this amount will be applied to the charge for Room and Board for the following term, and is forfeited if the student fails to complete his registration.

SCIENCE FEE. $100.00 per semester: All students majoring in Biology, Chemistry, Physics, Pre-Engineering and Freshmen who are enrolled in Undesignated Natural Science. $25.00 per semester: All Sophomores, Juniors and Seniors majoring in Psychology.

FINE ARTS FEE. A fee of $15 per semester is charged for students enrolled in Fine Arts 303 and 304.

RESERVE DEPOSIT. A deposit of $100 is required from all full-time students, and all Special and Part-Time Students enrolled for nine or more semester hours of credit. The deposit is required to defray expense incurred by damage to College property. This is included in the bill for the first term. Billings are rendered as assessments are made against the deposit balance. Any unexpended balance is returned upon graduation or withdrawal from the College.

STUDENT TEACHING. An additional fee of $125 is required of each student engaged in student teaching. This is payable upon presentation of the bill.

GRADUATION FEE. A graduation fee of $25 is charged each student on the last bill of his senior year. An additional deposit of $25 will be required for the use
of cap, gown, and hood. This deposit will be refunded upon return of the equipment.

TRANSCRIPT FEE. A charge of $2.00 is made for each transcript of a student's record after the first. Requests for transcripts should be made to the Office of the Dean. No grade reports or transcripts will be issued if there is an unpaid balance in a student's account.

ID CARD FEE. A charge of $1.00 is made for the issuance of an ID card. If the card is lost a charge of $5.00 will be made for its replacement.

CHANGE OF STATUS FEE. When a student changes his resident/day status, a new ID card must be issued. There is a $5.00 change of status fee.

PLACEMENT SERVICE FEES:
(a) Students until September 1 following their graduation: No charge.
(b) Alumni from September 1 following their graduation, using existing credentials: $1.00 per set of credentials.
(c) Alumni who newly register or re-register with changes in references resulting in a reorganized placement folder: $2.00 for registration or re-registration; $1.00 per set of new credentials.

REGULATIONS
Bills for student fees are issued approximately thirty days before the beginning of each term. A student's bill must be settled no later than the date indicated on the statement.

No student who is indebted to the College or to any of its departments or agencies will be permitted to register at the beginning of any term, and all items due the College from a candidate for graduation must be paid before the candidate may be presented for a degree.
A student who is absent from College because of sickness and retains his place in class pays student fees in full during his absence, except that when the absence is continuous over a period exceeding four weeks, resident students are allowed a prorata rebate for each full week of absence.

A student who voluntarily withdraws from College must notify the Dean of the College in writing and settle all bills within thirty days or be liable to dishonorable dismissal.

The possession or use of illegal drugs or firearms on the campus is forbidden.

Students who have attained an 80 cumulative average in the preceding year may operate a motor vehicle or maintain one on campus or in the College vicinity while in attendance at College. A vehicle may not be operated or maintained by students who hold financial grants or positions under the Bureau of Student Employment. This does not apply to students who are commuting.

Students who marry must notify the College of their change in status.

The College reserves the right to exclude at any time students whose conduct or academic standing renders them undesirable members of the College community, and in such cases the fees due or paid in advance to the College will be refunded according to the policy shown below. Other regulations and procedures of vital concern to students are contained in the pamphlets, Ursinus College Student Handbook and Financial Aid Brochure.

**REFUND POLICY**

Upon a student's dismissal, suspension or withdrawal from the College prior to the first day of class, the student will receive a full refund of monies paid, less $200.00 to cover application, enrollment and registration charges. Additionally, any student indebtedness to the College or to any of its departments or agencies will be deducted from any remainder due the student. There is no refund after the first half of an academic term because of a student's dismissal,
FINANCIAL INFORMATION

suspension or withdrawal from the College, and no refund is made of amounts paid for dormitory room. After the first day of class and until the end of the first half of an academic term, the prorata refund shall be as follows:

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Date of withdrawal shall be the date on which the student notifies the Dean of the College in writing of such action, or the date on which the College determines that the student has withdrawn, whichever is earlier. Date of dismissal or suspension shall be the date on which the College has notified the student of such action.

SCHOLARSHIPS AND FINANCIAL AID

STUDENT FINANCIAL ASSISTANCE
The primary mission of the Financial Aid Office at Ursinus is to provide counseling and assistance to those students who would be unable to attend college without such aid. An application for financial aid does not hinder a student's chance for admission to the College. Awards are made without reference to ethnic origin, religion, sex, handicap or marital status. The financial aid program assists full-time degree candidates in meeting college costs through institutional grants, scholarships, loans, and employment as well as aid through Federally supported campus-based programs. Ursinus also participates in the state grant and loan programs, Federally insured loan programs, Federal grant programs and recognizes outside merit awards. Financial aid may be offered singly or in a combination of grant, loan, and employment. The financial aid package is based on demonstrated need as determined through the uniform methodology as applied by the College Scholarship Service and approved by the U.S. Department of Education. Proven academic excellence and/or leadership abilities may also be considered.

APPLICATION PROCEDURE
All students wishing consideration for financial aid must submit a Financial Aid Form (FAF) and FAF Supplement to the College Scholarship Service no later than February 27. All late applications will be considered if funds are available. The FAF and FAF Supplement can be obtained from secondary school guidance offices, Ursinus College, or the College Scholarship Service, Box 176, Princeton, NJ 08540. The FAF and FAF Supplement should be completed in accordance with the instructions provided with the forms (Ursinus College Code: #2931). If it is filed before February 27, freshman and transfer students will
receive award notices by early April. Upperclass applicants should obtain a FAF and FAF Supplement before the end of the first semester and submit them to CSS before February 27. Upperclass award notices will be sent by early July. The College requires Federal income tax verification upon the acceptance of any aid offered by Ursinus College.

An independent (self-supporting) student must file an FAF and FAF Supplement with the CSS under the same guidelines as above. To be considered independent, a student must not be claimed as an exemption by either parent for income tax purposes for the calendar year in which aid is received as well as in the prior year. For example, a student applying for Fall, 1981, may not be listed as an exemption on the parents tax return for the years 1980, 1981, or 1982. In addition, a student may not receive assistance of more than $1,000, including room and board from parents or stepparents or guardian for the same period of time; nor can the student reside for more than six consecutive weeks with those persons during those periods. Substantiating documentation will be required to determine if a student is self-supporting.

All students should realize that financial aid is not automatic and requires formal application for each year that aid is expected. Foreign students must submit a special financial aid application available from the Office of Admissions.

**URSINUS COLLEGE AID PROGRAMS**

The College administers scholarship, loan and student employment funds totaling over three million dollars each year. Of the entire student body, more than 78% receive some form of financial aid whether it be through student employment, loans, or a college supported grant. Every student submitting a FAF and FAF Supplement will be considered automatically for all grant, loan and employment programs administered by the College.

**COLLEGE GRANTS:** Grants or scholarships which are awarded by the College do not have to be repaid. Recipients must have a demonstrated financial need as determined by the financial need analysis and are expected to remain in good academic and social standing. A yearly average of 70 must be maintained. If grant eligibility is forfeited for academic reasons at the end of a year, it will be forfeited for the following academic year.

**CENTENNIAL SCHOLARSHIPS:** Freshmen whose academic records and college board scores clearly indicate that they are outstanding students may be considered for a Centennial Scholarship. These scholarships are subject to yearly review and will be continued provided the student maintains a yearly average of 80 at the end of the freshman year and 85 each year thereafter.

**PRESIDENTIAL SCHOLARSHIPS:** Students who have demonstrated qualities of outstanding leadership and service to school or community during their secondary school years may be considered for a Presidential Scholarship. The award may be granted to freshmen or to upperclassmen in amounts which vary according to need, and may be renewed for continued service to the college. A yearly average of 70 must be maintained for renewal consideration.
SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANTS (SEOG): These grants are Federally funded and must be designated by the College to students with exceptional financial need. The average grant is $1000 for each academic year of undergraduate enrollment.

NATIONAL DIRECT STUDENT LOAN: These are Federally funded student loans which are awarded as part of the financial aid package each year. The loans are up to $1250 per year, not to exceed $7,500 for the four years of undergraduate study. The loans made prior to January 1, 1981, are repayable at three percent interest within ten years after a student graduates or leaves the college for other reasons. Payment begins twelve months after a student graduates or leaves college with the interest commencing after 9 months. New loans made after January 1, 1981, are repayable at four percent interest within ten years after a student graduates or leaves the College for other reasons. Payment (along with interest) on loans made after January 1, 1981, begins six months after a student graduates or leaves the College. If a student continues with graduate study, repayment is deferred as long as he is enrolled at least half-time. Upon graduation, repayment begins on a normal schedule.

GULF OIL LOAN PROGRAM: The Gulf Oil Student Loan Fund is available to upperclass students. Total loans may not exceed $1000. Recipients must be degree candidates and maintain a satisfactory academic average. The loans are at low interest with deferred repayment benefits, similar to the NDSL program. Need for the loan must be substantiated by a Financial Aid Form.

STUDENT EMPLOYMENT: The College provides students with an opportunity to earn part of their college expenses through campus employment in more than 400 positions on and off campus. The positions are standardized so as not to overburden a student or interfere with studies. Working just seven hours a week, a student can expect to earn more than five hundred dollars during the
academic year. Examples of the positions available are: waiting tables and floor managers in the dining hall; lab assistant in biology and chemistry; library assistants; house managers in the College Union; bookstore and snack shop clerks; departmental typists; administrative clerks; student aid interns; maintenance workers; and resident assistants in the dormitories. Students are employed on a contractual basis and should contact the various campus employers upon arriving on campus in the Fall. Earnings may be applied directly to student accounts at the end of each semester or paid in cash on the bi-weekly payroll. Depending on demonstrated financial need, students are paid either with federal work-study funds or college funds.

Ursinus also participates in the PHEAA Summer Work-Study Program which is designed to provide Pennsylvania residents with work experience coordinated with their academic field of study. The program must be limited to financial aid recipients due to the nature of its funding by the Federal government. Applications are available in early Spring from the Financial Aid Office.

When off-campus openings are made available by private employers, these positions are listed in the campus Daily Bulletin and are posted on the Student Information Board in the Financial Aid Office. Requests for student employment applications for campus employment should be addressed to the Financial Aid Office.

**FEDERAL AND STATE PROGRAMS**

**BASIC EDUCATIONAL OPPORTUNITY GRANT (BEOG/PELL GRANTS):** This is a Federal grant made available to students with exceptional financial need. Applications are available in high school guidance offices and should be completed by Spring of the senior year. The new combined PHEAA/BEOG application allows Pennsylvania residents to apply for both the Basic Grant and the Pennsylvania State Grant with the same form. Students who are not residents of Pennsylvania may also use the PHEAA/BEOG form to apply for BEOG only. Four to six weeks after filing, students receive a Student Eligibility Report with an index number. All three copies of the SER should be sent to the Financial Aid Office for validation and determination of the grant award. The BEOG application must be renewed each Spring for the following year.
STATE GRANT AND LOAN PROGRAM: Students should consult their secondary school counselors to determine the extent of grant and loan support available in each state. For example, residents of Pennsylvania may qualify for up to $1500 per year in grant funds from the Pennsylvania Higher Education Assistance Agency (PHEAA). New Jersey, Massachusetts, Connecticut, Rhode Island, Ohio and other states have similar programs. Applications are available in the high school guidance offices. Filing deadlines are important! Be sure to file early in the Spring each year. Most states also support their own student guaranteed loan program, allowing students to borrow up to $2500 annually at low interest and providing for deferred repayments. Applications are available at participating banks and other lending institutions and must be renewed annually.

SOURCES OF ASSISTANCE NOT BASED ON NEED

NATIONAL MERIT SCHOLARSHIPS: Ursinus sponsors four National Merit Scholarships each year. These scholarships are awarded through the National Merit Scholarship Corporation and are open to any National Merit Finalist who has selected Ursinus College as his first choice. The awards do not limit in any way the number of finalists who may be sponsored by other contributing organizations. Application should be made to the National Merit Scholarship Corporation through the secondary school.

PARENT LOAN PROGRAM: A federally supported program of loans to parents for dependent undergraduate students has been established by federal law, effective for the 1981-82 academic year. The maximum amount a parent may borrow for any one student in any academic year is $3,000. The aggregate loan limit for each dependent student is $15,000. Please note that repayment is required to begin within 60 days after the loan disbursement. There is no federal interest subsidy on parent loans. The interest rate for the Parent Loan Program will be nine per cent. Loan applications will be available at local banks and other lending institutions and will most likely be subject to standard commercial credit checks. Additional information will be available during the spring of 1981 at the lending institutions and the College.

TUITION EXCHANGE: Ursinus College is a member of the Tuition Exchange. Requests of children of faculty members of other member institutions for tuition remission will be considered upon application. Those who receive aid through the Tuition Exchange Program are not eligible for additional Ursinus College grants.

OTHER SOURCES OF AID: In addition to the programs described above, students should investigate other grant and scholarship programs sponsored by a variety of private organizations including business corporations, foundations, civic clubs, etc. High school guidance counselors usually maintain lists of the local organizations sponsoring awards for college bound students. The Ursinus College Financial Aid Brochure provides detailed information on all programs and is available in the Financial Aid Office.
EDUCATIONAL PROGRAM

The departmental system is employed in the organization and administration of instruction. By this system, the majors are offered in fourteen departments: Biology, Chemistry, Classical Studies, English, Economics and Business Administration, German, Health and Physical Education, History, Mathematics, Philosophy and Religion, Physics, Political Science, Psychology, Romance Languages. In addition, there are three interdisciplinary majors: American Public Policy, Applied Mathematics/Economics, and International Relations. The adviser is the medium of communication between the Faculty and students of his department. The approval of the adviser is necessary before a student may register for or enter upon any course of study, or discontinue any work.

CHOICE OF STUDIES

A student, at matriculation, chooses the subject of major concentration he wants to pursue, and with the advice and consent of the adviser selects his studies for the year and reports his selection to the Dean on a blank provided for the purpose. A student who is uncertain of his future plans, and therefore undecided about his major field, may choose to be registered in an "Undesignated major" for the first year; but he must designate the broad choice of Humanities, Social Sciences, or Natural and Physical Sciences.

It has become necessary to limit the number of students in scientific programs. In order to follow a curriculum in Science, a candidate must indicate his intention to do so upon application for admission to the College. If the student applies for and is admitted to a program in the Humanities, Social Sciences, or Languages, he may subsequently transfer to a program in the Sciences only upon approval of the Committee on Standing. Request for such a change in major should be addressed to the Dean of the College.

SERVICE ACTIVITIES

The College, through many of its departmental major programs as well as through student organizations, strongly encourages students to participate in community activities and projects. Many students volunteer their services as tutors or as part-time aides at nearby hospitals, schools, and welfare organizations. These services provide valuable field experience to supplement classroom work.

REGISTRATION

First year students register, in consultation with their advisers, at the beginning of the Fall Term for the work of the Fall and Spring Terms. Other students register during the Spring Term for the work of the next academic year. Changes in course of study may be made during the first week of a term with the written approval of the adviser. After the first week, courses may be added or dropped only by joint permission of the Dean, the adviser, and the instructors involved.
A student who withdraws from a course without such permission will receive the grade of F. A fee is charged for the adding or dropping of courses at times other than those appointed in the College Calendar.

In registering, students must present to their department adviser a complete list of studies, both prescribed and elective, for the whole year. Courses prescribed as degree or departmental requirements or to satisfy conditions must take precedence over and be scheduled before elective courses. When students change to another major department, they must fulfill the requirements of that department in order to be graduated.

Students wishing credit for courses taken elsewhere while they are an Ursinus student must make prior application for permission through the Office of the Dean to the Committee on Academic Standing of the College. Such application must be accompanied by the official catalogue entry from the other institution.

WITHDRAWAL
Students who seek to withdraw from the College must notify the Dean of the College in writing of this intention and its effective date, and must satisfy all obligations (including bills, the return of keys, equipment, and other College property). Failure to meet any such obligations will render the student liable to dishonorable dismissal.

REQUIREMENTS FOR GRADUATION
The requirement for the degree of Bachelor of Arts or Bachelor of Science is the completion of one hundred and twenty-two semester hours which must include all the courses required by the Faculty of all students for graduation and the courses required by the department to which the student belongs. At least sixty semester hours of this work must be completed at Ursinus College, and this

Students enjoy mingling in a crowd of friends on the steps of the College Union.
must include the work of the senior year. To qualify for the degree of Bachelor of Arts or Bachelor of Science and to receive a diploma from the College, not the Evening School, a student must be registered for a minimum of 60 semester hours of credit at Ursinus and must have spent a minimum of the two terms of the senior year as a full-time student in the day sessions, taking at least 12 credits during each of the last two semesters before graduation.

A regular student may not take in any one term fewer than twelve semester hours of work. The normal maximum for a term is five courses or fifteen semester hours. Two semester hours above the normal maximum may be scheduled with the approval of the adviser. Three semester hours above the normal maximum may be scheduled with the approval of the adviser and the Dean of the College, provided the student's average for the preceding term is eighty-five or higher (Exception: Engineering and Physical Education majors are permitted to schedule in each term three hours more than the normal maximum). All fourth-year students shall enroll as full-time students.

All requirements for graduation must be satisfied before the end of the last day of examination week preceding commencement. Each student must bear responsibility for fulfilling the requirements for graduation.

**USE OF LANGUAGE LABORATORIES**
The language laboratory is used regularly in either or both of the first two years in languages according to a schedule posted early in each academic year. The laboratory hours are required in addition to the regularly-scheduled class meetings. There is no semester-hour credit for language laboratory.

**CLASS ATTENDANCE**
Ursinus College is committed to the principle that class attendance is a vital part of its academic program, making possible that dialogue between student and teacher which is the foundation of the educational process. Students should therefore recognize that absence from class denies them access to the full measure of college education. While urging regular class attendance, the College at the same time wishes to allow students an opportunity to develop a personal responsibility toward academic work. In keeping with these convictions, the following policies govern class attendance:

Each student is expected to exercise reasonable judgment regarding class attendance. Every student is accountable for all work missed because of class absence. Instructors, however, are under no obligation to make special arrangements for students who are absent.

A student for whom an academic warning is issued in a course must limit his future absences in that course to the number of times that the course meets per week. If the student then exceeds the allowed number of absences, he will be dropped from the course and be assigned a grade of F unless the Dean, after consultation with the instructor, permits the student to be reinstated. A reinstatement fee of $10.00 will be charged.

A first-year student who is not on the Dean's List and who is absent from a course for a total of more than two weeks' meetings may be excluded from the course with a grade of F.
Benches on Freeland walkway offer a place to study or talk.

GRADES OF SCHOLARSHIP

When a course has been completed, the standing of the student is expressed, according to his or her proficiency, by one of the following grades: A+, A, A-, B+, B, B-, C+, C, C-, D+, D, D-, F. Letter grades have the following percentage equivalence assigned:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A+</td>
<td>98.33</td>
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<tr>
<td>A</td>
<td>95.00</td>
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<tr>
<td>A-</td>
<td>91.67</td>
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<tr>
<td>B+</td>
<td>88.33</td>
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<tr>
<td>B</td>
<td>85.00</td>
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<tr>
<td>B-</td>
<td>81.67</td>
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<tr>
<td>C+</td>
<td>78.33</td>
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<tr>
<td>C</td>
<td>75.00</td>
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<tr>
<td>C-</td>
<td>71.67</td>
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<tr>
<td>D+</td>
<td>68.33</td>
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<tr>
<td>D</td>
<td>65.00</td>
</tr>
<tr>
<td>D-</td>
<td>61.67</td>
</tr>
<tr>
<td>F</td>
<td>45.00</td>
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</table>

A grade of F denotes a failure in the course. Students who have received passing grades are not permitted to take re-examinations for the purpose of raising their grades.

The mark I, which may be given only with the written permission of the Dean, is reserved for cases of incomplete work or of failure under extenuating circumstances. When the removal of the mark I requires an examination, a fee of ten dollars ($10.00) will be charged. If the mark of I is not removed within one month after the beginning of the following regular term, the grade F will be assigned for the course.

A student is required to have an average of 70% at the end of each term in College. A student who fails to do so may be restricted in his extra-curricular activities, and will be reported to the Faculty.

A student whose average at the end of the first term or second term is below 65%, whose cumulative average is below 65% at the end of the first year, or
The excitement of an idea makes its mark in the classroom.

whose cumulative average is below 70% at the end of the third term or thereafter will be dropped from the College unless, as a result of mitigating circumstances, the Faculty votes that such student be permitted to continue. The action of the Faculty in all such cases is final.

A student who is dropped from the College for academic reasons may be considered for readmission. Unless there are unusual circumstances, one academic year must pass before such a student is readmitted. During this time the student should take courses at another institution or engage in some activity that will demonstrate to the Faculty that the student is prepared to return to the College for serious academic work.

On-campus Employment is not allowed to a student whose average for the preceding year is below 70%. A student under discipline may be barred by the Judiciary Board from all extracurricular activities.

Through correspondence and conferences, the cooperation of parents is sought in the endeavor to obtain the best possible results in the work of students.

Any student may be dismissed from the College for cause by the Faculty, regardless of the student’s academic average.

DEGREES

Ursinus College confers three degrees in course: Bachelor of Arts, Bachelor of Science, and Bachelor of Business Administration (Evening School only). For specific requirements of the curricula leading to each of these degrees, see Departmental Requirements and the catalog of the Evening School. Degrees are conferred only at convocations and candidates must present themselves in person.

A student in good standing who has earned a minimum of ninety semester hours of credit and who withdraws from the College to enter an accredited graduate or professional school may, with the approval of the Faculty, receive a baccalaureate degree from Ursinus after earning any doctoral degree from an accredited institution.
The College may confer the honorary degrees of Doctor of Divinity, Doctor of Humane Letters, Doctor of Pedagogy, Doctor of Science, Doctor of Letters, and Doctor of Laws on persons whose distinguished ability and service have been deemed worthy of such recognition by the Faculty and the Board of Directors.

HONORS

COMMENCEMENT

Two Commencement honors are assigned: one, the Valedictory, to the person attaining the highest standing in the graduating class; the other, the Salutatory, to the person attaining the next highest standing.

GRADUATION WITH DISTINCTION

Members of the graduating class who have shown great proficiency in their first seven semesters may be graduated with distinction if, in the opinion of the Faculty, their attainments warrant such honors. These distinctions, Summa Cum Laude, a cumulative average of 94.50 or above; Magna Cum Laude, 92.50 to 94.49; and Cum Laude, 89.50 to 92.49, are given only for unusual excellence in all the subjects pursued by the candidate. Graduation Honors will be based on the student's cumulative average at the end of the first seven (7) terms of college studies.

DEAN'S HONOR LIST

All regular or full-time students achieving an average of 87.50 for a semester are announced at the end of that semester as members of the Dean's Honor List. It is an Ursinus tradition to publish at the Founders' Day Convocation the names of those students who have been carried on the Dean's Honor List for the preceding two semesters.

THE CHAPTER

The Chapter, a society of faculty members with Phi Beta Kappa membership, is especially concerned with cultivating the arts and sciences at Ursinus College.

Each year The Chapter designates certain seniors as "Chapter Scholars" on the basis of the quality and range of their intellectual interests and attainments.

SOCIETY OF THE SIGMA XI

The Society of the Sigma Xi, national honorary fraternity for the recognition and encouragement of scientific research, was founded at Cornell University in 1886. The Society was incorporated in 1942. The Ursinus College Sigma Xi Club was installed on October 27, 1966. Election to the Club is based on achievement in original research, and limited to Juniors, Seniors, and Faculty. Election is held once a year, the nominations coming from faculty members.

PI GAMMA MU

Pi Gamma Mu, the national Social Science Honorary Society for the recognition of scholarship in the social sciences, was founded in 1924. It is affiliated with the American Association for the Advancement of Science. The Ursinus Chapter, Pennsylvania Sigma, was installed January 1, 1950. Election to
the society is based on academic achievement in the social sciences. Election of eligible Juniors and Seniors is held once a year, the nominations coming from faculty members.

**JUNIOR YEAR ABROAD**

Ursinus College Students may spend the Junior Year at a foreign university, provided that they have maintained an average of 85 at Ursinus College and, in the opinion of the Dean and the Faculty, will be worthy representatives of the College and will profit from this experience. The course of study abroad must be approved at the time that permission is given. An examination covering the year's work may be required by the department chairman upon the student's return. Upon evidence of successful completion of the program, a maximum of fifteen (15) credits per term will be given for studies pursued in a program abroad. Information may be obtained from the Chairman of the Romance Languages Department.

The College sponsors its own program of travel and study in France and Spain for a limited number of students during the summer. Information may be obtained from the Chairman of the Romance Languages Department.

**FOREIGN STUDENTS**

Foreign Students, under guidance of the Foreign Student Adviser, are usually classified by the College as a Special Student, at least for the first year. They may then be admitted to degree candidacy for subsequent years. Although facility in understanding spoken English will be a requisite for admission, foreign students would do well to arrive in the United States before the opening of the college year in order to become familiar with American English. A “homestay” of one month as arranged through the Experiment in International Living, Putney, Vermont, U.S.A., is highly recommended to anyone whose native tongue is not English. Further information can be obtained directly from the organization. At the discretion of the Dean of the College and of the language departments, residents of foreign countries fluent in the language of that country are exempt from the foreign language requirement.

Foreign students should make sure that their visa is valid for more than a single entry into the United States, since on vacation trips they may wish to cross the borders into Canada or Mexico.

All foreign students who wish to apply to Ursinus College are required to take the Test of English as a Foreign Language (TOEFL). For information, write to TOEFL, Box 899, Princeton, New Jersey, USA, 08540.

No foreign student should arrive at the Ursinus campus until all credentials are complete and a formal letter of acceptance has been received.

Dormitories and dining halls are not in operation during college holidays. Transportation should be arranged via Philadelphia to Collegeville. Foreign students may telephone the Foreign Student Adviser at 215-489-4111 if they need assistance.
## THE UR SINUS PLAN 1981

<table>
<thead>
<tr>
<th>TIERS</th>
<th>CURRICULAR GOALS</th>
</tr>
</thead>
<tbody>
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<td><strong>TIER I</strong></td>
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</tr>
<tr>
<td>Basic Intellectual Skills</td>
<td><em>First</em> Development of effective writing skills</td>
</tr>
<tr>
<td></td>
<td><em>Second</em> Development of effective speaking skills</td>
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<td></td>
<td><em>Third</em> Development of ability to think and communicate in mathematics and other quantitative analyses</td>
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<td></td>
<td><em>Fourth</em> Knowledge of a foreign language</td>
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<td></td>
<td><em>Fifth</em> Introduction to methods and insights of the humanities, natural sciences and social sciences</td>
</tr>
<tr>
<td></td>
<td><em>Sixth</em> Physical education for lifetime health and recreation</td>
</tr>
<tr>
<td><strong>TIER II</strong></td>
<td></td>
</tr>
<tr>
<td>The Major Specialization</td>
<td><em>Seventh</em> Intensive study in a single discipline</td>
</tr>
<tr>
<td></td>
<td><em>Eighth</em> Research and problem solving skills including the ability to pose significant questions, to collect appropriate data, to subject it to critical analysis, and to reach logical conclusions</td>
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<tr>
<td><strong>TIER III</strong></td>
<td></td>
</tr>
<tr>
<td>The Minor Concentration</td>
<td><em>(Optional development of student’s special or vocational interests)</em></td>
</tr>
<tr>
<td><strong>TIER IV</strong></td>
<td></td>
</tr>
<tr>
<td>Electives-</td>
<td><em>Ninth</em> Knowledge of the diverse cultures and value systems of our society and the contemporary world, and the development of a capacity for making independent and responsible value judgments.</td>
</tr>
<tr>
<td>Individual Choice</td>
<td><em>Tenth</em> Knowledge of the fine arts</td>
</tr>
<tr>
<td>Effective: 1979-80</td>
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</tbody>
</table>
A CURRICULUM OF LIBERAL EDUCATION RELEVANT TO THE WORLD TODAY

The curriculum of Ursinus is central in meeting the mission of the College—to develop independent and responsible individuals who are prepared for a creative and productive role in a changing world. To support this mission, the College created The Ursinus Plan, effective with the 1979-80 academic year. (Students enrolled before 1979-80 are not bound by the requirements of this Plan.)

The structure and content of The Ursinus Plan are shown on the accompanying table. The Plan builds a student’s education in four related tiers. Within these tiers are the ten goals toward which the faculty feels that liberally educated persons should strive.

After explaining the four Tiers and the curricular Goals, the following section shows the course requirements and options for meeting each goal.

***THE FOUR TIERS OF LEARNING***

TIER I

Basic Intellectual Skills
This portion of the curriculum promotes the intellectual skills fundamental to a liberal education and supplies the foundation for advanced academic work. All students must meet the TIER I requirements.

TIER II

The Major Specialization
Drawing upon skills and insights gained in TIER I, the student undertakes an intensive study in a single discipline, supported by courses in related disciplines. Recognizing that student needs and goals are not uniform, the individual departments offer two or more specializations designed to meet various student needs. In general, these specializations are of two types:

- The Core Specialization consists of a group of courses central to the field. Students will ordinarily elect this specialization when they wish to elect a minor concentration in another academic department or a special interest minor concentration related to specific career goals.

- The Advanced Specialization consists of the core specialization in the major and additional advanced study in the major itself. It is offered in departments in which intensive preparation is deemed advisable for students wishing to pursue graduate study or to apply to professional schools. Students should see departmental advisers for details.

TIER III

The Minor Concentration
Students have the opportunity in TIER III to develop a secondary academic specialty, amplify basic skills or acquire additional knowledge related to their vocational goals or career plans. Although The Minor Concentration is not required, students who elect The Core Specialization in their major discipline are strongly urged to elect The Minor Concentration appropriate to their interests. Three types are available:

- Minor Concentration In An Academic Discipline. Students may elect to
follow a prescribed course of study outside their major discipline, thus achieving depth in a second discipline.

- **Special Interest Minor Concentration.** The student may elect a Special Interest Minor Concentration approved by the faculty. Whether departmental or interdisciplinary, such minor concentrations are designed to help prepare students to extend their liberal arts training specifically to incorporate their vocational or educational goals.

- **Interdisciplinary Minor Concentration.** Students who have interests spanning several departments may design individual minor concentrations in consultation with the heads of the involved departments. The following Minor Concentrations have been approved by the faculty:

<table>
<thead>
<tr>
<th>Athletic Training</th>
<th>Human Behavioral Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthropology</td>
<td>Latin</td>
</tr>
<tr>
<td>Biology</td>
<td>Latin America Studies</td>
</tr>
<tr>
<td>Business Administration</td>
<td>Management Science</td>
</tr>
<tr>
<td>Chemistry</td>
<td>Mathematics</td>
</tr>
<tr>
<td>Classical Studies</td>
<td>Neurosciences</td>
</tr>
<tr>
<td>Coaching</td>
<td>Pennsylvania German Studies</td>
</tr>
<tr>
<td>Communication Arts</td>
<td>Philosophy</td>
</tr>
<tr>
<td>Computer Science</td>
<td>Physics</td>
</tr>
<tr>
<td>Creative and Performing Arts</td>
<td>Political Science</td>
</tr>
<tr>
<td>Drama</td>
<td>Quantitative Methods</td>
</tr>
<tr>
<td>Economics</td>
<td>Recreation</td>
</tr>
<tr>
<td>English</td>
<td>Religion</td>
</tr>
<tr>
<td>Finance</td>
<td>Romance Languages</td>
</tr>
<tr>
<td>French</td>
<td>Secondary Education</td>
</tr>
<tr>
<td>General Psychology</td>
<td>Secondary School Teaching</td>
</tr>
<tr>
<td>German</td>
<td>Sociology</td>
</tr>
<tr>
<td>Greek</td>
<td>Spanish</td>
</tr>
<tr>
<td>History</td>
<td>Statistics</td>
</tr>
</tbody>
</table>

Please refer to appropriate departments under "Course Requirements" for prescribed courses in each approved Minor Concentration.

**TIER IV**

**Electives: Individual Choice**

In TIER IV students have the opportunity to explore unfamiliar subjects, to deepen understanding of material previously introduced, and in general to broaden their intellectual horizons. This is accomplished by giving students freedom to choose courses of greatest interest to them. A number of special courses are provided within TIER IV, including College Scholars, Senior Symposium, Interdivisional Studies, and Departmental Honors. These offerings are described elsewhere in the Catalog. Most departments offer a number of courses which do not have prerequisites. All students are urged to read the Catalog carefully and take advantage of the variety of possible electives. Students are also urged to consult with their advisers regarding their selection of electives in order to insure their thoughtful progress toward their educational goals.
THE CURRICULAR GOALS

In most instances, the curricular goals may be achieved in a number of ways, and provision is made in some cases for the student who is competent in an area to exempt that curricular goal. Together these goals provide for the development and growth of basic intellectual skills vital for effectiveness and competence in any adult endeavor.

Many students may wish to develop more specific vocationally-related skills, or to take courses related to specific career interests. The College's course offerings provide many such opportunities. For the guidance of the student some of these opportunities are brought together systematically in the form of the special interest minor concentrations. Although not required to do so, students who do not plan to continue their formal education beyond the Ursinus degree are strongly urged to elect a special interest minor concentration in TIER III.

COURSE REQUIREMENTS AND OPTIONS

The requirements and options for working toward each goal are shown below. The available choices should make an Ursinus education flexible enough to meet the needs of all students.

First Goal: Development of effective writing skills—
(a) Two semesters of First Year Composition 101, 102, including a term paper each semester; or
(b) one semester of First Year Composition, plus recommendation to another English course such as journalism (not yet offered), Critical Theory and Practice 327, or a College Scholars project, or the equivalent; or
(c) placement out of First Year Composition 101, 102 at the discretion of the English Department, plus one writing course.

Second Goal: Development of effective speaking skills—
(a) One semester of work in Communication Arts; or
(b) placement out at the discretion of the Communication Arts Department upon satisfactory demonstration of speaking ability.

Third Goal: Development of the ability to think and communicate in mathematics and other quantitative analyses—
(a) Mathematics 102; or
(b) Statistics; or
(c) Computer Science; or
(d) any Mathematics course numbered higher than 102; or
(e) Philosophy 106.

Fourth Goal: Knowledge of a foreign language—
(a) Two semesters of language at the 203, 204 level; or
(b) two semesters of advanced language study; or
(c) at the discretion of the Dean of the College and the language departments, residents of foreign countries fluent in the language of that country are exempt from this requirement.

Fifth Goal: An introduction to the methods and insights of the humanities
(including an introduction to the history of Western civilization), natural sciences and social sciences—

(a) Humanities, including an introduction to the history of Western civilization: (1) History 101, 102; or (2) Philosophy 101, 102; or (3) World Literature 201, 202.

(b) Natural sciences: (1) Major in the department of Biology, Chemistry, Mathematics or Physics; or (2) an introductory sequence of two semesters in Astronomy, Biology, Chemistry, Physics or Geology; or (3) Integrated Mathematics-Physics; or (4) six semester hours of advanced work in a natural science.

(c) Social sciences: (1) Major in the department of Economics and Business Administration, Political Science or Psychology; or (2) six semester hours of work in Political Science, Psychology, Anthropology, Sociology or Economics 101, 102.

Sixth Goal: Physical Education for lifetime health and recreation—

(a) Four half-semester units are required of all students. One unit concerns concepts of health and physical education and is a prerequisite to the remaining units. The other units consist of a number of fitness and lifetime recreation activities from which the student must choose three; or

(b) Major in Health and Physical Education.

Seventh Goal: Intensive study in a single discipline—

See departmental requirements for each major discipline.

Eighth Goal: Research and problem solving skills, including the ability to pose significant questions, to collect the appropriate data, to subject it to critical analysis, and to reach logical conclusions—

Each department provides training in these skills for all departmental majors.

Ninth Goal: Knowledge of the diverse cultures and value systems of our society and the contemporary world, and the development of a capacity for making independent and responsible value judgments—

(a) It is strongly recommended that when choosing electives, each student include at least one course which deals with non-Western perspectives on human experience. Ursinus offers regular courses in non-Western (i.e. societies other than English-speaking North America, Great Britain, and Continental Europe) history, cultural anthropology, government, literature, philosophy and religion. Students may also schedule independent work in non-Western languages and cultures.

(b) It is also strongly recommended that when choosing electives, each student select at least one course which includes an analysis of values and their role in making decisions. Appropriate electives currently offered are Interdivisional Studies, Senior Symposium, and courses in philosophy and religion.

Tenth Goal: A knowledge of the fine arts—

It is strongly recommended that students select at least one course in music, literature, or the fine arts as part of their electives. All Ursinus students have the opportunity to attend concerts, lectures, exhibits, plays, and films both at the College and in the Philadelphia area.
COLLEGE SCHOLARS' PROGRAM

Qualified Freshmen in their second term, Sophomores, Juniors and Seniors may earn up to nine credits (not more than three per semester) by pursuing guided independent research as Research Scholars or by working in subjects not in the regular college curriculum as Independent Students.

1. To qualify for either section of the College Scholars' Program, the candidate must have achieved a semester average of 85 during the semester immediately preceding.

2. Each semester of passing work in the programs will carry three semester credits.

3. A student may work for no more than one semester in the Department of his Academic Major.

4. The Divisions of the Program are Natural Sciences, Languages, Social Sciences, and Humanities.

5. In the Research Scholars' Program, the candidate must prepare a brief prospectus outlining his research project which meets the approval of his Academic Adviser and of the College Scholars' Committee of the faculty. He must then prepare his research paper under the supervision of a Tutor and must participate in two seminar meetings per semester, designed to bring him into contact with the other Scholars working in the same Division of the Program. His work will be graded by the College Scholars' Committee, which will assess the merits of his research paper and his performance at an oral examination, which will be attended by his Tutor and when feasible by an outside authority in the student's field. His Academic Adviser will also be invited to attend.

6. In the Independent Study Program, the candidate must prepare a prospectus stating what subject he wishes to study and what materials he hopes to use. This prospectus must be approved by his Academic Adviser and by the College Scholars' Committee of the faculty, which may consult the head of any Department logically concerned. The student must submit to the College Scholars' Committee a course outline approved by his Tutor before the end of the second full week of the semester. The student, his Tutor, and the Committee will then meet to determine an appropriate format for his final report and examination. Independent Students will also be required to participate in the seminar meetings of the Program. The Independent Student will be graded by the Committee on the basis of the course plan agreed upon at the outset, with the Tutor devising and administering the final examination, oral or written, as in any regular course.

DEPARTMENTAL HONORS

Students with high overall academic standing who have demonstrated an exceptional competence, the capacity for independent, original research and disciplined scholarship may be awarded Departmental Honors in the department of their major or minor field of concentration, subject to the following regulations:

1. To be eligible for Departmental Honors, a student must have (a) a cumulative average of 85 and an average of 88 in all courses taken in the department in which he seeks honors, based on the work of six semesters, or (b)
a cumulative average of 88 and an average of 88 in the department in which he seeks honors, based on the work of the last four semesters. Students who have attended Ursinus less than four semesters must have the grade averages as in (b) above, and must obtain approval of the Dean of the College.

2. To be admitted to candidacy for Departmental Honors, a student must obtain written consent of a faculty member who will serve as his project adviser, have his candidacy certified by the chairman of the department in which he wishes to pursue honors, and have his Research/Individual Project approved by the department.

3. Students register during the Spring pre-registration period of their junior year for the two semester sequence of Research/Independent Work (491-492).

4. The Honors Project, completed in the Research/Independent Work courses, must demonstrate disciplined, independent and original scholarship or creativity. If the candidate receives a passing grade, he will earn credit hours toward graduation, even though his work may not be recommended for Departmental Honors.

5. Departmental Honors will be awarded on the recommendation of the Department and the approval of the Faculty.

6. Departments specify the date for the candidate to submit his completed thesis. In order that the Faculty may consider the awarding of Honors, the candidate must deposit his completed thesis in bound form following the format established by the Myrin Library, the written recommendation of his Project Adviser and approval of the department in the Office of the Dean of the College by the Monday of the last full week of classes.

STUDENT-INITIATED MAJORS

Students who complete the freshman year and whose major interests span two or more recognized academic fields, if they have a cumulative B average (83.33 or above), may arrange a specialized major which combines these fields, such as Biophysics, Biopsychology, Chemical Biology, American History and Literature, Comparative Literature.

In order to set up such a specialized major, the student and the appropriate department heads, in consultation with other department members, must draw up a written statement of all courses and additional major requirements, which may include a comprehensive or an oral examination by members of both departments at the end of the program of studies. This proposed course of studies must then be submitted to the Dean of the College, with whose approval it may be signed and filed in his office.

Upon successful completion of the major requirements so specified, the student will graduate in the subject field specified on his program proposal.

COMBINED MAJORS

In addition to the basic fourteen departmental majors, students may elect one of a number of combined majors that have been approved by the faculty. Such combined majors are prescribed courses of study involving required and/or elective courses in two or more academic departments. Each has its own faculty advisor. In the 1981-82 academic year, the following combined majors are available: American Public Policy, International Relations, Applied
Mathematics/Economics. See page 120 for course requirements in these combined majors.

SENIOR SYMPOSIUM

The Senior Symposium is a cooperative teaching enterprise with an emphasis on discussion and dialogue among students and faculty from different disciplines. The work consists entirely of independent reading, periodic conferences with a tutor and a final oral examination.

COMMUNITY AND CIVILIZATION

This course challenges students to discover how our values have shaped our society and to examine the forces of conservation and innovation. There are weekly lectures and tutorials, with independent research and discussion of case studies.

COMPLEMENTARY PROGRAM

COMPLEMENTARY CULTURAL ACTIVITIES

Every full-time student is required to participate in cultural activities at Ursinus College. The activities are planned in a four-year cycle of emphasis. They include the FORUM series, academic CONVOCATIONS, and related activities such as FIELD TRIPS to museums, and other complementary activities.

COMPLEMENTARY STUDENT ACTIVITIES

Every student is encouraged to participate in those student activities which provide opportunities for integrating perspectives and content of several disciplines and courses within the major divisions of learning. While students are not restricted to participation in activities related to their divisional or departmental fields, the following listing will assist students in seeing those relationships:

Language Division:  
French Club  
German Club  
Spanish Club  
Debating Team  

Humanities Division:  
Meistersingers  
Ursinus College Choir  
Ursinus College Pep Band  
Protheatre  
Ursinus WeeklyStaff  
LanternStaff  
Ruby Staff  
Photography Club

Social Science Division  
Economics Club  
International Relations Club  
Intercollegiate Conference on Government  
Psychology Club  
G. Leslie Omwake Education Club  
Ursinus Student Government Association  
College Union Program Board

Science and Mathematics Division:  
Beardwood Chemical Society  
Brownback-Anders Pre-Medical Society  
Mathematics Club  
Biology Club

COMPLEMENTARY PHYSICAL ACTIVITIES

All students are required to take PHYSICAL EDUCATION unless they are a Physical Education Major or otherwise excused. In addition, every student is encouraged to participate in the activities of organizations such as the Outing Club, and to engage in intramural as well as varsity sports.
COURSES OF INSTRUCTION

The system used in numbering courses reflects in general the year of the college in which many students schedule a course. Thus a course taken in the first year normally will begin with the numeral 1, in the second year with a 2, and so on. Numbers do not indicate the year in which a course must or should be taken. Any specific prerequisites or other considerations for enrolling are stated in the course description.

In designating courses of study, odd numerals are employed to indicate the courses normally offered during the Fall Term and even numerals the work of the Spring Term. Exceptions to this regulation are noted. Summer Term offerings are not announced in this catalog, but so far as possible, courses will be offered to meet the needs of students who register for the Summer Term.

The credit value of each course, expressed in semester hours, is printed in italics. The hours per week are given in the definition of the course.

AMERICAN PUBLIC POLICY
See under Combined Majors

003—ANTHROPOLOGY
MR. GALLAGHER

Anthropology is by definition and scope an interdisciplinary subject which addresses itself holistically to the study of man from many places and many periods of time. Anthropology encompasses four distinct but interconnected fields of study: physical or biological anthropology; social and cultural anthropology; prehistoric archaeology; and linguistic anthropology. The goal of the department is to help the student to understand what it means to be human and to understand our own value system through an exposure to the value systems of others.

The department of anthropology offers courses leading to a minor concentration in anthropology. The requirements for the minor are a minimum of 15 semester hours in anthropology. The minor must include at least two 200 level courses and one 400 level course.

003—101. INTRODUCTION TO SOCIOCULTURAL AND LINGUISTIC ANTHROPOLOGY MR. GALLAGHER

This course provides a survey of alternative ways of dealing with human needs while viewing people as social beings. The emphasis is on family patterns, kinship relationships, political organization, economic systems, religion, and language as a cultural system. This course is offered in the fall semester of each year. Three hours per week. Three semester hours.

003—102. INTRODUCTION TO PHYSICAL ANTHROPOLOGY AND PREHISTORIC ARCHAEOLOGY MR. GALLAGHER

This course surveys anthropological analysis of human biological nature and human prehistory. Attention will be given to human evolution, issues of race, primate studies, and the reconstruction of life styles of extinct, non-literate populations. This course is offered in the spring semester of each year. Three hours per week. Three semester hours.

*003—211. PEOPLES OF LATIN AMERICA MR. GALLAGHER

This course presents an overview of the cultures and institutions of the prehistoric, historic, and contemporary populations of Latin America. Special consideration will be given to the relationship between indigenous and immigrant populations. This course is offered in the fall semester of even numbered years. Prerequisite, Anthropology 101 or consent of the instructor. Three hours per week. Three semester hours.

* This course is not offered in 1981-1982.
003—222. NORTH AMERICAN INDIANS  
MR. GALLAGHER  
In an examination of various American Indian cultures north of Mexico, emphasis will be placed upon social and political organization, religion and value systems, and acculturation. This course is offered in the spring semester of even numbered years. Prerequisite, Anthropology 101. Three hours per week. Three semester hours.

*003—232. PEOPLES OF THE PACIFIC  
MR. GALLAGHER  
A study of the indigenous societies of Australia, Melanesia, Micronesia, and Polynesia focuses on social and political organization, religion, art, and the changes resulting from European contact and colonization. This course is offered in the spring semester of odd numbered years. Prerequisite, Anthropology 101. Three hours per week. Three semester hours.

003—451. RESEARCH  
MR. GALLAGHER  
This course comprises directed reading and research on a specific anthropological topic. Students wishing to register in this course must present to the advisor for this research a proposal outlining the research to be completed. The proposal must be approved by the advisor. At regular intervals during the semester, students must submit progress outlines and meet with the advisor to discuss them. A final paper will be required. Prerequisites, Anthropology 101 and two 200 level anthropology courses. Three semester hours.  

Seminars will be offered when sufficient interest is shown.

003—461. SEMINAR IN ANTHROPOLOGY  
MR. GALLAGHER  
Seminars will deal with special topics in anthropology. The topics may be either a concentrated look at a major subdiscipline within anthropology (e.g., economic anthropology, linguistic anthropology, or archaeology), or an analysis of various theoretical perspectives. Prerequisite, Anthropology 101 and one 200 level anthropology course. Three hours per week. Three semester hours.

APPLIED MATHEMATICS/ECONOMICS  
See under Combined Majors

ART  
see under Fine Arts

005—BIOLOGY  
ASSOCIATE PROFESSOR ALLEN  
ASSOCIATE PROFESSOR KRUSE  
ASSOCIATE PROFESSOR SMALL  
ASSISTANT PROFESSOR SHINEHOUSE  
ASSISTANT PROFESSOR FIELDS  
ASSISTANT PROFESSOR PHILLIPS  
MRS. WHITTAKER

The Department aims, through study of the fundamental aspects of Biology as a science, to foster in its students a scientific attitude, and to provide for its majors a firm foundation of knowledge for various biologically-related occupations, for graduate work in biology or for admission to professional schools in the several fields of medicine and related health services. The Department also participates in a program leading to teacher certification in secondary schools as described below.

All students majoring in Biology must accumulate a minimum of 32 semester hours of biology which includes the core curriculum. Except as specified in the teacher certification program (see below), the core curriculum consists of Biology 111, 112; 215 and one course from each of the following divisions: Cellular Biology (Biology 216, 418, 422, 425) Animal Biology (Biology 312, 315, 317, 318, 323, 335, 426); Plant

*This course is not offered in 1981-82.
COURSES OF INSTRUCTION

Biology (Biology 333, 334, 428). Chemistry 111, 112, and 207, 208, Physics 111, 112 and Mathematics 111, 112 are also required of all majors. Successful completion of Chemistry 314 (Biochemistry) may be substituted for four semester hours of biology electives.

A minor concentration in Biology consists of Biology 111, 112 (or Biology 101, 102 and satisfactory performance on a competency examination) and at least nine additional credits (excluding one credit courses) in Biology above the 100 level.

See Psychology (075) for the minor in Neuroscience.

SPECIAL CAREER INTERESTS

I. Students seeking admission to schools of medicine, dentistry, veterinary medicine, optometry and podiatry should note the following:
   1. At least one additional course in chemistry (e.g. Chemistry 203, 314, 316) is strongly recommended.
   2. Biology electives should be chosen in accordance with professional objectives.

II. Students seeking admission to graduate programs in biologically-related fields should note the following:
   1. At least one additional course in chemistry is recommended, to be selected in accordance with graduate objectives.
   2. Mathematical Sciences 241, 242 is recommended.
   3. Computer Science 171 is recommended.
   4. Biology electives should be chosen in accordance with the major area of interest.

III. Prospective secondary school teachers whose principal interest is biology and who wish to be certified in Biological Science should note the following:
   1. One of the following courses is required from the division of Animal Biology: Biology 312, Biology 317 or Biology 318.
   2. The required course from the division of Plant Biology must be Biology 334 or 428.
   3. Biology 415 is required.
   4. Simultaneous certification in General Science (see General Science Certification at the back of the catalog) is highly recommended.
   5. It is highly recommended that prospective teachers serve at least one semester as departmental teaching assistants.
   6. The curriculum beyond the first year must be arranged in consultation with the Chairman of the Department of Education.

IV. Students who plan to terminate their formal education at the baccalaureate level should note the following:
   1. Mathematical Sciences 241, 242 is strongly recommended.
   2. Economics and Business Administration 101, 102 and 111, 112 are recommended.
   3. TIER III and TIER IV courses should be selected in accordance with occupational interests.

005—101. INTRODUCTION TO BIOLOGICAL SCIENCE

DR. KRUSE

An introduction to the principles of structure, function and development of living organisms. Major topics of discussion include the chemical and cellular basis of life, organismal systems, and the interrelationship of living organisms. Two hours of lecture; two hours of laboratory per week. Three semester hours.
005—102. **INTRODUCTION TO BIOLOGICAL SCIENCE**  
**DR. SMALL**

An introduction to the principles of structure, function and development of living organisms. Major topics of discussion include genetics, the plant kingdom, behavior, evolution and ecology. Two hours of lecture; two hours of laboratory per week. **Three semester hours.**

005—111. **GENERAL BIOLOGY**  
**DR. PHILLIPS**

An introduction to biology stressing structure and function. Topics include cell structure, cell energetics, the animal kingdom, digestion, respiration, circulation, hormones and reproduction. Laboratory includes a study of representative organisms and experimentation. Three hours of lecture; three hours of laboratory per week. **Four semester hours.**

005—112. **GENERAL BIOLOGY**  
**DR. PHILLIPS**

A continuation of Biology III. Topics include genetics, development, the plant kingdom, the nervous system, muscular contraction, animal behavior, ecology and evolution. Laboratory includes a study of representative organisms and experimentation. Prerequisite, Biology 111. Three hours of lecture; three hours of laboratory per week. **Four semester hours.**

Courses 005—111, 112 are the basic introductory courses prescribed for all Biology majors and for any others who are planning to meet the various pre-professional requirements in the health sciences.

005—215. **GENETICS**  
**DR. FIELDS**

A survey of the basic principles of classical, biochemical and population genetics using a variety of organisms to illustrate the experimental rationale of the genetic problem. Prerequisite, Biology 112; or permission of the instructor. Two hours of lecture; two hours of laboratory per week. **Three semester hours.**

005—216. **CYTOLOGY**  
**DR. FIELDS**

A study of the fine structure of prokaryotic and eukaryotic cells and the molecular and supemolecular organization and function of cell organelles. Prerequisite, Biology 112 or permission of the instructor. Three hours of lecture per week. **Three semester hours.**

005—222. **EVOLUTION**  
**DR. FIELDS**

Lectures, assigned readings and papers explaining the history of living things in space and time. Prerequisite, Biology 102 or 112. Two hours per week. **Two semester hours.**

005—312. **VERTEBRATE ANATOMY**  
**DR. ALLEN**

A comparative study of body structure and its evolution in the major groups of vertebrate animals. Laboratory dissection of the bony fish, shark, bird and mammal. Prerequisite, Biology 112. Two hours of lecture; six hours of laboratory per week. **Four semester hours.**

005—315. **VERTEBRATE EMBRYOLOGY**  
**DR. ALLEN**

An integrated comparative study of development in all major vertebrate classes. Laboratory includes embryology of the amphibian, bird and mammal. Prerequisite, Biology 112. Two hours of lecture; six hours of laboratory per week. **Four semester hours.**

005—317. **HUMAN ANATOMY AND PHYSIOLOGY**  
**MRS. SHINEHOUSE**

A study of the characteristics of cells and tissues, and of the muscular, skeletal and nervous systems. Emphasis is placed on the integration of structure and function. Prerequisite, Biology 101 or 111; or permission of the instructor. Two hours of lecture; two hours of laboratory per week. **Three semester hours.**
COURSES OF INSTRUCTION

005—318. HUMAN ANATOMY AND PHYSIOLOGY  
MRS. SHINEHOUSE
A study of the structure and function of the sense organs, and of the circulatory, respiratory, urinary, digestive, endocrine and reproductive systems. Prerequisite, Biology 317; or permission of the instructor. Two hours of lecture; two hours of laboratory per week. Three semester hours.

005—323. INVERTEBRATE ZOOLOGY  
DR. PHILLIPS
An introduction to the study of invertebrate animals and their life processes. Prerequisite, Biology 112. Two hours of lecture; three hours of laboratory per week. Three semester hours.

005—333. BIOLOGY OF THE NON-VASCULAR PLANTS  
DR. SMALL
A phylogenetic survey of the non-vascular plants, with emphasis on identification, morphological and evolutionary trends, and isolation and culture techniques. Prerequisite, Biology 112. Two hours of lecture; three hours of laboratory per week. Three semester hours.

NOTE: Limitations in space or laboratory facilities preclude the enrollment of more than 20 students in Biology 333.

005—334. BIOLOGY OF THE VASCULAR PLANTS  
DR. SMALL
A survey of the morphology and evolution of the vascular plants, including the principles, theory and methodology underlying modern taxonomic systems. Available field time centers upon the morphology and taxonomy of the local vascular flora. Prerequisite, Biology 112. Two hours of lecture; three hours of laboratory per week. Three semester hours.

NOTE: Limitations in space or laboratory facilities preclude the enrollment of more than 20 students in Biology 334.

005—335. ANALYSIS OF DEVELOPMENT  
DR. ALLEN
Investigation of the mechanisms that bring about the differentiation of cells and their subsequent organization into tissues, organs and organ systems. Laboratory work stresses the development of vertebrate morphology. Prerequisite, Biology 215. Two hours of lecture; six hours of laboratory per week. Four semester hours.

005—341. RESEARCH  
STAFF
Scientific literature research with the preparation of a final report concerning some biological phenomenon of interest to the student. Prerequisites, Biology 112 and written consent of a staff member who will serve as research adviser, presented at the time of preregistration. One semester hour.

005—342. RESEARCH  
STAFF
Content and prerequisites as in Biology 341, but offered in the spring term. One semester hour.

*This course is not offered in 1981-1982.
005-415. ECOLOGY
DR. SMALL
Studies of the interrelationships between organisms and their environment, with emphasis on field investigations. The following principles and concepts are stressed: energy relations, population dynamics, the community, succession and environmental effects. Prerequisite, Biology 102 or 112. Two hours of lecture; three hours of laboratory per week. Three semester hours.
NOTE: Limitations in space or laboratory facilities preclude the enrollment of more than 40 students in Biology 415.

005-418. MICROBIOLOGY
DR. KRUSE
The structural, cultural, and physiological characteristics of microorganisms and their role in the economy of nature. The principles of immunology, serology and virology are also considered. Prerequisite, Biology 112; or permission of the instructor. Two hours of lecture; three hours of laboratory per week. Three semester hours.

005-422. HISTOLOGY
MRS. SHINEHOUSE
A study of the structure of vertebrate tissues and their integration into organs and organ systems. An introduction to histological technique. Prerequisite, Biology 112; or permission of the instructor. Two hours of lecture; five hours of laboratory per week. Four semester hours.
NOTE: Limitations in space or laboratory facilities preclude the enrollment of more than 40 students in Biology 422.

005-425. CELLULAR PHYSIOLOGY
DR. KRUSE
A study of the phenomena involved in cell growth, maintenance, self-regulation and in the general behavior of protoplasm. Prerequisites, Biology 112; Chemistry 208. Two hours of lecture; four hours of laboratory per week. Four semester hours.
NOTE: Limitations in space or laboratory facilities preclude the enrollment of more than 16 students in Biology 425.

005-426. VERTEBRATE PHYSIOLOGY
DR. KRUSE
A study of the general principles of the functional mechanisms that underlie the life processes of vertebrates. Prerequisites, Biology 112; Chemistry 208. Two hours of lecture; four hours of laboratory per week. Four semester hours.
NOTE: Limitations in space or laboratory facilities preclude the enrollment of more than 20 students in Biology 426.

005-428. PLANT PHYSIOLOGY
DR. FIELDS
A study of the life processes of green plants and the environmental factors that regulate them. Experiments will illustrate physiological concepts. Prerequisites, Biology 112; Chemistry 208. Two hours of lecture; three hours of laboratory per week. Three semester hours.
NOTE: Limitations in space or laboratory facilities preclude the enrollment of more than 12 students in Biology 428.

005-433. SEMINAR
STAFF
Papers, reports, discussions and/or independent research concerned with selected phases of biological knowledge. Topics to be chosen by the instructor in charge. Prerequisites, Senior standing; Biology 215, 312, 315, 316; Chemistry 208; or permission of the instructor. One hour per week. One semester hour.

005-434. SEMINAR
STAFF
Comparable to Biology 433, but using different material. Prerequisites as in Biology 433. One hour per week. One semester hour.
005—451. RESEARCH  
Library and laboratory research with the preparation of a final thesis. An original laboratory analysis of some biological phenomenon and presentation of results in a student-staff seminar. Prerequisites, Biology 112 and written consent of a staff member who will serve as research adviser, presented at the time of preregistration. **Three semester hours.**

005—452. RESEARCH  
Content and prerequisites as in Biology 451, but offered in the spring term. **Three semester hours.**

005—491. RESEARCH/INDEPENDENT WORK  
Open only to candidates for departmental honors. **Three semester hours.**

005—492. RESEARCH/INDEPENDENT WORK  
Open only to candidates for departmental honors. **Three semester hours.**

**NOTE:** A normal maximum of three semester hours of credit will be applied to any combination of research courses. Students who wish to add additional hours of research credit must obtain special permission from the research adviser and from the Chairman of the Department.

**BUSINESS ADMINISTRATION**  
see under Economics and Business Administration

**010—CHEMISTRY**

**PROFESSOR STAIGER**  
**ASSOCIATE PROFESSOR SCHULTZ**  
**ASSOCIATE PROFESSOR BARTH**  

**ASSOCIATE PROFESSOR HESS**  
**MRS. SHAW**

The courses of study offered by the Chemistry Department are (1) to provide a course in general chemistry which will satisfy the requirements of the College for a laboratory science; (2) to provide training in chemistry for students planning to teach; (3) to provide more than the minimum training for students planning to become technicians in medical laboratories, and for pre-dental and pre-medical students; (4) to offer sufficient specialized training in chemistry beyond the basic courses that will enable a graduate to enter a career as a professional chemist; and (5) to prepare students for graduate training.

Students whose principal interest is Chemistry will select a degree of concentration consistent with their vocational objective.

One of the following programs should be chosen that corresponds with the student's educational objectives:

1. **American Chemical Society — Accredited Chemistry Major**

All students planning to become professional chemists should enroll in the following program, which is approved by the American Chemical Society for undergraduate professional training in Chemistry. The following courses are prescribed:

- **1st year** — Chemistry 111, 112; Physics 111, 112; Mathematics 111, 112; English Composition; Language (German is recommended).
- **2nd year** — Chemistry 203, 207, 208; Mathematics 211, 212; Physics 204; and selected non-science courses fulfilling graduation requirements.
- **3rd year** — Chemistry 309, 309a, 310, 310a, 306, 306a, 311.
- **4th year** recommended for selection as electives; Chemistry 304, 321, 312, 314, 405, 413, 491, 492; Physics 207, 208; German 312; Mathematics 232.
II. Concentration in Chemistry for Graduate School and Medical School

This program is designed for degree seeking students planning for graduate work or admission to professional schools in the healing arts (Medicine, Dentistry, etc.). In this and the following programs another language may be substituted for the German recommended in Program I.

1st and 2nd year identical with Program I except Biology 111, 112 is substituted for Physics 204 in the second year.

3rd year — Chemistry 309, 309a, 310, 310a. The following are recommended for selection as electives, Chemistry 306, 306a, 314, 321, 405, 413.

III. Concentration in Chemistry for Allied Fields of Science

This program is suggested for students wishing a sound preparation in Chemistry to be combined with further study in areas such as Pharmacology, Clinical Chemistry, Physical Therapy, and Environmental Science, or students wishing to combine a Chemistry background with a concentration in Economics, Business Administration, Biology or Psychology.

1st and 2nd year identical with Program I except Biology 111, 112 is substituted for Chemistry 203 and Physics 204 and Mathematics 241 (Statistics) is substituted for Mathematics 211 (Intermediate Calculus).

3rd year — Chemistry 203, 316, and selected courses fulfilling graduation requirements.

4th year — Chemistry 321, 314; Electives consistent with objectives.

IV. Teaching

This program (major in Science, concentration in Chemistry) is designed for prospective secondary school teachers whose principal interest is Chemistry. The following courses are prescribed by the Department of Chemistry: Chemistry 111, 112, 203, 207, 208; Chemistry electives 6 credits: Biology 101, 102; Physics 111, 112, 204; Mathematics 111, 112. A student presenting six credits in general chemistry may satisfy the prerequisite for an advanced course by passing a written examination set by the faculty of the Department.

A minor concentration in Chemistry consists of the following: Chemistry 111, 112; 203; 207, 208; 306 and 306a or 316 or 309 and 310 or 413 and 413a.

010—101. GENERAL CHEMISTRY MRS. SHAW
Basic chemical principles such as atomic structures, bonding, and oxidation-reduction are developed with emphasis on how these principles relate to daily life. Related laboratory work complements the classroom topics. Chemistry 101 is designed for the non-science major and does not satisfy the prerequisite for advanced Chemistry courses. Two hours of lecture and three hours of laboratory per week. Three semester hours.

010—102. GENERAL CHEMISTRY MRS. SHAW
A continuation of Chemistry 101. Prerequisite, Chemistry 101. The principles developed in Chemistry 101 are used in discussion of pertinent, current topics such as energy and food production, air and water pollution, drugs and medicines. Related laboratory work complements the classroom topics. Chemistry 102 is designed for the non-science major, and does not satisfy the prerequisite for advanced Chemistry courses. Two hours of lecture and three hours of laboratory per week. Three semester hours.

Courses 010—101 and 010—102 are not open to Chemistry majors but may be taken by other students who satisfy college graduation requirements.
010-111. GENERAL COLLEGE CHEMISTRY  
DR. STAIGER, MRS. SHAW  
A study of the basic theories and laws of chemistry, concerning the common elements of the periodic system, their structures, interactions and energy relationships. This course is accompanied by work in the mathematical solution of chemical problems and is the prerequisite to advanced chemistry courses. Three hours of lecture and three hours of laboratory per week. *Four semester hours.*  
Chemistry 111, 112 are coordinated with Mathematics 111, 112 and Physics 111, 112 in such a way as to demonstrate their relationships and interdependence.

010-112. GENERAL COLLEGE CHEMISTRY  
DR. STAIGER, MRS. SHAW  
A continuation of Course 010-111. Prerequisite course 010-111. A study of the oxidation states of the common elements, chemical equilibrium, solubility product and pH. The laboratory experimentation deals with the qualitative separation and characterization of the common cations and anions. Three hours of lecture and three hours of laboratory per week. *Four semester hours.*

010-203. QUANTITATIVE ANALYSIS  
MISS BARTH  
A study of commonly used methods of gravimetric and volumetric analysis. Emphasis is placed on the theory of equilibrium. Prerequisites, Chemistry, 111, 112; Mathematics 111, 112 and Physics, 111, 112, previously or concurrently. Three hours lecture and three hours of laboratory per week. *Four semester hours.*

010-207. ORGANIC CHEMISTRY  
DR. HESS  
The study of the properties, synthesis, and the structure of the most important classes of the carbon compounds. Prerequisites, Chemistry 111, 112; Three hours of lecture and three hours of laboratory per week. *Four semester hours.*

010-208. ORGANIC CHEMISTRY  
DR. HESS, DR. STAIGER  
A continuation of Chemistry 207. Prerequisite, Chemistry 207. Three hours of lecture and three hours of laboratory per week. *Four semester hours.*

010-304. INORGANIC CHEMISTRY  
MISS BARTH  
Selected topics in the descriptive chemistry of the elements in terms of modern bonding theory. The laboratory work involves the application of special techniques to the synthesis of representative inorganic compounds. Three hours of lecture and three hours of laboratory per week. Prerequisite, Chemistry 309. *Four semester hours.*

010-306. INSTRUMENTAL ANALYSIS  
MISS BARTH  
A study of the theory and applications of modern instrumental analysis; electrochemistry, spectroscopy and chromatography. Prerequisites Chemistry 203 and 309. Three hours of lecture per week. *Three semester hours.*

010-306a. LABORATORY IN INSTRUMENTAL ANALYSIS  
MISS BARTH  
Laboratory work related to course 306. This course must be taken concurrently with course 306. Three hours per week. *One semester hour.*

010-309. PHYSICAL CHEMISTRY  
DR. SCHULTZ  
A study of the fundamental laws of thermodynamics as applied to chemical systems. Areas emphasized include chemical equilibrium, surface chemistry and phase diagrams. Prerequisites, Chemistry 203 and Mathematics 231. Three hours of lecture per week. *Three semester hours.*

010-309a. LABORATORY IN PHYSICAL CHEMISTRY  
DR. SCHULTZ  
Laboratory work related to course 309. For Chemistry majors this course must be taken concurrently with course 309. Three hours per week. *One semester hour.*
010—310. **PHYSICAL CHEMISTRY**

A continuation of Chemistry 309. A study of quantum mechanics and its application to chemical properties. Areas emphasized include chemical kinetics and molecular structure determinations. Prerequisite, Chemistry 309. Mathematics 232 is recommended as a corequisite. Three hours of lecture per week. *Three semester hours.*

010—310a. **LABORATORY IN PHYSICAL CHEMISTRY**

Laboratory work related to course 310. For Chemistry majors this course must be taken concurrently with course 310. Three hours per week. *One semester hour.*

010—311. **THE IDENTIFICATION OF ORGANIC COMPOUNDS**

The classification and identification of organic compounds based on physical and chemical properties; the chemical analysis of organic functional groups and the preparation of characteristic derivatives. Two hours of lecture and six hours of laboratory per week. Prerequisite, Chemistry 208. *Four semester hours.*

010—312. **ADVANCED ORGANIC CHEMISTRY**

A study of the structures of organic molecules and their relation to the mechanism of organic reactions. Prerequisite, Chemistry 208 and permission of the instructor. Three hours of lecture per week. *Three semester hours.*

010—314. **BIOCHEMISTRY**

The study of the properties, structure, synthesis, and metabolism of carbohydrates, proteins, lipids, and nucleic acids; biological oxidations; enzyme catalysis; the chemistry of selected physiological processes. Prerequisites, Chemistry 207, 208. Three hours of lecture; three hours of laboratory per week. *Four semester hours.*

**NOTE:** Limitations in space and laboratory facilities preclude the enrollment of more than 24 students.

010—316. **PHYSICAL CHEMISTRY FOR THE LIFE SCIENCES**

A study of the fundamental laws of thermodynamics as applied to biological systems. The areas emphasized are macromolecular solutions, electro-chemistry, surface chemistry and enzyme kinetics. Prerequisite, Chemistry 208, Biology 112. Three hours of lecture and three hours of laboratory per week. *Four semester hours.*

010—321. **THE LITERATURE OF CHEMISTRY**

The use of books, journals, and reports in the field of Chemistry and the presentation of a seminar paper. This course is prerequisite to the Chemical Research courses. Two hours per week. *Two semester hours.*

*010—405. **ANALYTICAL CHEMISTRY**

An advanced course in analytical chemistry. Primary emphasis is placed on separation methods—extraction, distillation and chromatography. Prerequisites Chemistry 203 and 310. Two hours of lecture per week. *Two semester hours.*

*010—405a. **LABORATORY IN ANALYTICAL CHEMISTRY**

Laboratory work (optional) related to course 405. Corequisite 405 or permission of instructor. Three hours per week. *One semester hour.*

010—413. **POLYMER CHEMISTRY**

A study of the synthesis, structure and properties of polymers. Topics include polymerization methods and kinetics, determination of molecular weight and its distribution, mechanical properties, and polymer processing. Prerequisites, Chemistry 208 and 310 or 316, or permission of the instructor. Three hours of lecture per week. *Three semester hours.*

*This course is not offered in 1981-1982.*
010-413a. LABORATORY IN POLYMER CHEMISTRY
DR. SCHULTZ
Laboratory work (optional) related to course 413. Corequisite or prerequisite Chemistry 413 or equivalent. Three hours per week. One semester hour.

010-491. RESEARCH/INDEPENDENT WORK
STAFF
Library and laboratory research with oral progress reports and a final thesis. Prerequisite 321 and written consent of a staff member who will serve as research advisor, presented at the time of preregistration. Students who have been admitted to the course and who have fulfilled its requirements may be awarded Departmental Honors, but no additional semester hours of credit, if they have qualified in other ways for admission to the Honor program. Three semester hours.

010-492. RESEARCH/INDEPENDENT WORK
STAFF
Prerequisite, Chemistry 491. Three semester hours.

CLASSICAL STUDIES
ASSOCIATE PROFESSOR WICKERSHAM
Courses in the Department of Classical Studies are intended to develop reading ability in ancient Greek and Latin, and to introduce the student to the major forms of ancient literary expression; they enhance general linguistic facility and give the student direct access to the original documents of Western civilization.

Majors must take at least 12 semester hours of Greek, and 12 semester hours of Latin above Latin 102. Latin 301 is required. Majors must also include among their electives History 101, 102 and elect at least 9 semester hours from the following major-related courses: English 320-326 (Classics in Translation), 214 (Linguistics); Anthropology 101, 102 (Introduction to Social and Physical Anthropology); History 319 (Ancient Near East & Greece), 320 (Rome), 321 (Byzantium), 327, 238 (History of Art); Philosophy 101, 102 (History of Philosophy), 103 (General Problems of Philosophy), 105, 106 (Logic), 108 (Aesthetics); World Literature 201, 202 (Western Literature). Other courses not mentioned may be counted as major-related with the approval of the Department.

Those intending to teach Greek or Latin in the public schools are urged to acquire State certification through the Department of Education.

A minor concentration in Classical Studies consists of a minimum of 12 credits in Greek and Latin courses to, at least, the 204 level; six credits either in Classics in Translation (Literature 320, 322, 324, or 326), or in ancient history (History 319 and 320).

A minor concentration in Greek consists of 15 credits in Greek, and three credits in Classics in Translation (Literature 320, 322, 324, or 326).

A minor concentration in Latin consists of 15 credits in Latin; and three credits in Classics in Translation (Literature 320, 322, 324, or 326).

016—GREEK

016-101. ELEMENTARY GREEK
DR. WICKERSHAM
Thorough study of ancient Greek grammar and syntax. Practice in reading and composition. Emphasis on development of reading ability. Forms a unit with Greek 102. Three hours per week. Three semester hours.

016-102. ELEMENTARY GREEK
DR. WICKERSHAM
Continuation of Greek 101. Study of grammar completed and replaced by reading of a whole work, such as a play of Euripides, Xenophon's Anabasis I, or a book of the New Testament. Three hours per week. Three semester hours.
016—203. **ATTIC PROSE**

Plato's *Apology* and other texts concerning Socrates. Prerequisites: Greek 102 or equivalent. Three hours per week. *Three semester hours.*

016—204. **THE EPIC**

Large excerpts from the *Iliad* or *Odyssey*. Study of Homer's poetry and thought. Introduction to history of the Greek language, with special attention to phonology. Foundations of Western literature. Prerequisites: Greek 203 or equivalent. Three hours per week. *Three semester hours.*

The following advanced courses will be given according to students' needs and interests; consult with the instructor concerning available offerings.

016—208. **NEW TESTAMENT**

At least one book of this important record. Three hours per week. *Three semester hours.*

016—301. **DRAMA**

Reading and study of Sophocles' *Oedipus the King*, plus one other tragedy by Sophocles, Aeschylus, or Euripides, or a comedy by Aristophanes or Menander. Three hours per week. *Three semester hours.*

016—302. **HISTORICAL WRITERS**

Large excerpts from Herodotus' *Persian Wars*, Thucydides' *Peloponnesian War*, or Xenophon's *Greek History*. Three hours per week. *Three semester hours.*

016—401. **SEMINAR**

Seminars of varying content, concentrating on a topic, author, or genre. Three hours per week. *Three semester hours.*

016—402. **SEMINAR**

Seminars of varying content, concentrating on a topic, author, or genre. Three hours per week. *Three semester hours.*

016—491. **RESEARCH/INDEPENDENT WORK**

This course is open to candidates for departmental honors and to other students with the permission of the department chairman. *Three semester hours.*

016—492. **RESEARCH/INDEPENDENT WORK**

A continuation of course 491. Prerequisite, course 491. *Three semester hours.*

**017—LATIN**

017—101. **ELEMENTARY LATIN**

Instant production of reading ability, with ever-growing development of vocabulary and style. Forms unit with Latin 102. Three hours per week. *Three semester hours.*

017—102. **ELEMENTARY LATIN**

Continuation of Latin 101. All aspects of classical Latin are covered; readings depict wide variety of Roman life. Three hours per week. *Three semester hours.*

017—203. **INTERMEDIATE LATIN**

Review of elementary Latin. Carefully programmed readings cover topography of Rome, and early Roman legends and history down through the first Punic War. Three hours per week. *Three semester hours.*

017—204. **INTERMEDIATE LATIN**

Continues Latin 203. Practice and review, and transition to readings from original sources taking Roman history through the growth of the empire. Three hours per week. *Three semester hours.*
The sequence Latin 101—204 is recommended for fulfilling the foreign language requirement. The following advanced courses will be offered as suits the needs and interests of students; consult with the instructor concerning available offerings.

**017—301. THE LATIN LANGUAGE**  
DR. WICKERSHAM  
Detailed study of Latin vocabulary, morphology and syntax. Introduction to comparative linguistics. Survey of documents and literature from the origins to the present. Required for Classical Studies majors. Prerequisite, Latin 204, equivalent or permission. Three hours per week. *Three semester hours.*

**017—302. INTRODUCTION TO LATIN POETRY**  
DR. WICKERSHAM  
Poems of Catullus, Ovid, Tibullus, Propertius. Stress on developing sensitivity and canons of appreciation. Three hours per week. *Three semester hours.*

**017—303. HISTORICAL WRITERS**  
DR. WICKERSHAM  
Caesar, Suetonius, or Tacitus. Three hours per week. *Three semester hours.*

**017—304. THE ROMAN REVOLUTION**  
DR. WICKERSHAM  
Speeches and letters of Cicero, and other contemporary documents. Three hours per week. *Three semester hours.*

**017—305. VERGIL'S AENEID**  
DR. WICKERSHAM  
Paganism transcended. Three hours per week. *Three semester hours.*

**017—401. SEMINAR**  
DR. WICKERSHAM  
Seminars of changing content, for study of special topics, authors, genres. Three hours per week. *Three semester hours.*

**017—402. SEMINAR**  
DR. WICKERSHAM  
Seminars of changing content, for study of special topics, authors, genres. Three hours per week. *Three semester hours.*

**017—491. RESEARCH/INDEPENDENT WORK**  
DR. WICKERSHAM  
This course is open to candidates for departmental honors and to other students with the permission of the department chairman. *Three semester hours.*

**017—492. RESEARCH/INDEPENDENT WORK**  
DR. WICKERSHAM  
A continuation of course 491. Prerequisite, course 491.

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**077—COMMUNICATION ARTS**

**ASSOCIATE PROFESSOR HENRY**  
**MISS SHOLAR**

A minor concentration in Communication Arts consists of 15 credits from the following, with a maximum of nine credits from English: Communication Arts 202, 301, 302, 401, 401A, 402, 402A, 411, 412; English Composition 205, 207, 308; English Literature 327.

A minor concentration in Drama consists of Communication Arts 401, 401A, 402, 402A; English Literature 320 or 324 or 331; 6 credits chosen from Communication Arts 202, 301, 302; English Literature 210, 335, 336.

**077—201. PUBLIC SPEAKING**  
STAFF  
The composition and presentation of speeches that inform, teach and persuade, with group analysis and criticism. Three hours per week. *Three semester hours.* Enrollment limited to twenty students per section.

**077—202. TELEVISION PRODUCTION**  
STAFF  
An introduction to television techniques and organization, with student participation in the production of newscast, panel discussions, and interview programs. Three hours per week. Prerequisite, Communication Arts 201. *Three semester hours.* Enrollment limited to twenty students per section.
077—301. THEATRE WORKSHOP
An introduction to the theatre, with an emphasis upon acting techniques. Students will participate in acting exercises, scene study, and stagecraft, and will gain practical experience in campus productions. Three hours per week. Three semester hours.

Communication Arts 301 alternates with English 335.

077—302. THEATRE WORKSHOP
A continuation of Theatre Workshop 301 with an emphasis upon directing and management. Prerequisite, Communication Arts 301. Three hours per week. Three semester hours.

Communication Arts 302 alternatives with English 336.

077—401, 402. PROJECTS IN THEATRE ARTS
Advanced individual work on special projects related to the theatre, such as the preparation and execution of a major role, or the direction of a major production. A project proposal and written consent of the instructor who will serve as adviser are required prior to registration. Prerequisites: Communication Arts 201, 202; courses 301 and 302 are recommended. Two semester hours.

077—401A, 402A. RESEARCH PAPER IN THEATRE ARTS
Can only be elected in combination with 077—401 and 402. Permission of instructor required. One semester hour.

077—411, 412. PROJECTS IN TELEVISION PRODUCTION
Advanced independent work in television production, such as planning, writing, directing and taping of a weekly campus production. A project proposal and written consent of the instructor who will serve as adviser are required prior to registration. Prerequisites: Communication Arts 201, 202. Two semester hours.

018—COMPUTER SCIENCE
see under Mathematical Sciences

020—ECONOMICS AND BUSINESS ADMINISTRATION
ASSOCIATE PROFESSOR PILGRIM
ASSOCIATE PROFESSOR SYMONS
ASSISTANT PROFESSOR BOWERS
ASSISTANT PROFESSOR MEYER
ASSISTANT PROFESSOR PETT
ASSISTANT PROFESSOR ARNOLD
VISITING PROFESSOR FULTON
MR. McCARTHY

The work in the Economics and Business Administration Department is designed to give (1) a knowledge of the structure and functioning of our economy; (2) a knowledge of the philosophy and methods of economics as a policy science; (3) a suitable background in economics and business administration for those who wish to enter accounting, business, law, government, or graduate school.

REQUIREMENTS FOR MAJORS
All students majoring in the department must take a minimum of thirty semester hours of work in the department including Economics and Business Administration 101, 102, 325, 326; either 242 or a course in computer science; and either 435 or 437. In addition, they must take Mathematics 101, 102, 241, and one introductory sequence other than Economics and Business Administration 101, 102 from the Social Science Division. Mathematics 111 may be substituted for Mathematics 101, 102 upon the basis of adequate previous preparation. Selection of electives will depend on the students vocational objective. Recommended electives for different objectives are as follows:
I. Economics Emphasis

This program is recommended for students planning to pursue graduate study in economics or who are interested in economics as a social science. Electives should be chosen from Economics and Business Administration 321, 328, 408, 434, 435, and 436. An introductory course in computer science is also recommended. Students planning on graduate study in economics should also take at least one year of calculus.

II. Business Administration Emphasis

This emphasis is recommended for students preparing for a career in business. It is also recommended for students planning to attend graduate school in management. Electives should be chosen from Economics and Business Administration 111, 112, 215, 306, 307, 313, 315, 316, 318, 408, 436, and 437. It is also recommended that students take an introductory course in computer science. Students planning on graduate study in economics should also take at least one semester of calculus.

III. Accounting Emphasis

This program is designed for students interested in entering the field of Accounting and seeking the CPA designation. In addition to thirty semester hours of economics (including Accounting Principles) students should elect Intermediate Accounting and a minimum of eighteen additional semester hours of Accounting courses offered in the Ursinus Evening School. Although Accounting courses beyond Accounting Principles do not count toward the Economics and Business Administration major, they do receive credit toward graduation.

IV. Secondary School Teaching Certification

This program satisfies the Pennsylvania state requirements for secondary school certification in social science—economics emphasis. The required courses in Economics and Business Administration are 101, 102, 325, 326, and 435. Electives should be selected from Economics and Business Administration 215, 306, 307, 313, 316, 318, 328, 408, and 434.

Students majoring in the department are also encouraged to elect a minor concentration in another area. Students may elect a business-related minor concentration such as computer science, statistics, or quantitative methods. Alternatively, students may elect one or more of the special interest minors currently offered by other departments or may prepare their own minor. Students majoring in Economics and Business Administration may not also elect minors in the department.

INTERDISCIPLINARY MAJORS

The Economics and Business Administration Department participates in interdisciplinary majors in Applied Mathematics—Economics, Public Policy, and International Relations. For additional information and course requirements, see the listings in the Mathematical Sciences and Political Science Departments.

MINOR CONCENTRATIONS

A minor concentration in Accounting consists of Economics and Business Administration 111, 112, 201, 202, and any introductory course in Computer Science.


A minor concentration in Economics consists of Economics and Business Administration 101, 102, 325, 326 and 435.

A minor concentration in Management Science consists of Economics and Business Administration 315, 318, 436; Mathematics 215; and six credits of Computer Science.

020—101. ECONOMIC PRINCIPLES—MACROECONOMICS
Basic economic concepts, national income and its fluctuations, the money and banking system, and the role of government. Three hours per week. Three semester hours.

020—102. ECONOMIC PRINCIPLES—MICROECONOMICS
Price theory, income distribution, international trade, and current economic problems. Three hours per week. Three semester hours.

020—111. ACCOUNTING PRINCIPLES
Introduction to principles and procedures underlying the periodic determination of income and financial positions; emphasis is directed toward the interrelationship between statements and their use in decision making. Three hours per week. Three semester hours.

020—112. ACCOUNTING PRINCIPLES
Partnership, corporate, manufacturing cost, and departmental accounting. Analysis of financial statements and the impact of accounting methods and policies on financial reports. Prerequisite, Economics and Business Administration 111. Three hours per week. Three semester hours.

020—201. INTERMEDIATE ACCOUNTING
A study of advanced accounting principles and their applications to the construction and analysis of corporate financial statements, together with the basics of the financial mathematics involved. The course includes problems dealing with the presentation in financial statements of corporate financial position, changes in financial position and operating results. Special attention is given to the FASB's current developments. Prerequisite, EcBA 112. Three hours per week. Three semester hours.

020—202. INTERMEDIATE ACCOUNTING
A continuation of Economics and Business Administration 201. Prerequisite, Economics and Business Administration 201. Three hours per week. Three semester hours.

NOTE: EcBA 201, 202 will not be counted toward the 30 semester hours required for a major in Economics and Business Administration.

020—215. BUSINESS LAW
The fundamental procedures governing contracts. Lectures, and study of cases and problems. Three hours per week. Three semester hours.

028—242. STATISTICAL APPLICATIONS IN ECONOMICS AND BUSINESS
A study of the use of statistics in the analysis of economic theory and as a tool for business decision-making. Topics include the simple and multiple regression models, the design and testing of hypotheses, data sources, and the use of computers in data analysis. Prerequisites: EcBA 101, 102; Mathematical Sciences 241. Three hours per week. Three semester hours.

NOTE: EcBA 242 will not be counted toward the 30 semester hours required for a major in Economics and Business Administration.

020—306. CORPORATION FINANCE
Basic principles underlying the financing of the corporate structure. Short and long-term financing instruments. Expansion, failure, and reorganization of the corporation. Prerequisite, Economics and Business Administration 101. Three hours per week. Three semester hours.

020—307. MARKETING
Basic principles and practices involved in the physical distribution of goods and services between producers and consumers. Methods used to create place, time,
and possession utility. Prerequisite, Economics and Business Administration 102. Three hours per week. Three semester hours.

020—313. PUBLIC FINANCE AND TAXATION  
MR. SYMONS  

020—315. QUANTITATIVE METHODS FOR BUSINESS  
DR. PILGRIM  
An introductory course in operations research. Topics include linear programming, decision theory, PERT/CPM analysis, and simulation methods. Emphasis on problem-solving and case studies. Prerequisite Mathematics 215 or equivalent. Three hours per week. Three semester hours.

020—316. MONEY AND BANKING  
MR. SYMONS  
Monetary theory and practice with reference to commercial banking in the United States. Governmental monetary and fiscal policies. International balance of payments. Prerequisites, Economics and Business Administration 101, 102. Three hours per week. Three semester hours.

020—318. ECONOMICS OF MANAGEMENT AND LABOR  
MR. ARNOLD, MR. MEYER  
Theory and practice in the organization and management of the firm for effective use of capital and labor. Three hours per week. Three semester hours.

020—321. HISTORY OF ECONOMIC THOUGHT  
MR. MEYER  
An examination of the development of systematic economic thought from ancient to modern times. Ideas are considered in the light of their initial and continuing relevance. Three hours per week. Three semester hours.

020—325. MICROECONOMIC THEORY  
DR. PILGRIM, DR. PETT  
Advanced study of price theory and income distribution. Prerequisite, Economics and Business Administration 101, 102. Three hours per week. Three semester hours.

020—326. MACROECONOMIC THEORY  
DR. PILGRIM, DR. PETT  
Development of alternative theoretical models of output, employment, and price level determination and the impact of governmental stabilization policies. Prerequisite, Economics and Business Administration 101, 102. Three hours per week. Three semester hours.

020—328. COMPARATIVE ECONOMIC SYSTEMS  
MR. MEYER  
Analysis of National economic systems in theory and practice. The development of economic policy and problems is discussed and compared. Two year cycle of topics; each topic may be elected for credit. Prerequisite, Economics and Business Administration 101, 102.

020—328a. ECONOMIC SYSTEMS IN DEVELOPED COUNTRIES  
Three hours per week. Three semester hours.

020—328b. ECONOMIC SYSTEMS IN UNDERDEVELOPED COUNTRIES  
Three hours per week. Three semester hours.

020—408. INTERNATIONAL ECONOMICS  
DR. PETT  
An introduction to the world economy with particular emphasis on the U.S. role in international goods and money markets. Specific topics include the causes of trade, tariffs and quotas, exchange rate systems, balance of payments and the effects of national economic policy on the international economy. Prerequisite. Economics and Business Administration 101, 102. Three hours per week. Three semester hours.

* This course is not offered in 1981-1982.
020—434. ECONOMIC DEVELOPMENT

MR. MEYER

Examination of the theories of economic growth, and of the social, economic and political factors that seem to affect the rate of growth. Two year cycle of topics; each topic may be elected for credit. Prerequisite, Economics and Business Administration 101, 102.

020—434a. PROCESS AND PROBLEMS OF DEVELOPMENT IN THE MODERN WORLD

Three hours per week. Three semester hours.

020—434b. PROCESS AND PROBLEMS OF ECONOMIC DEVELOPMENT IN EUROPE AND THE U.S.

Three hours per week. Three semester hours.

020—435. SEMINAR IN CURRENT ECONOMICS PROBLEMS

MR. MEYER, DR. PILGRIM

Review of contemporary economic problems in a setting of policy actions and theoretical analysis. Preparation and discussion of research papers. Open to senior economics majors or to others with permission of instructor. Three hours per week. Three semester hours.

020—436. ECONOMETRICS

DR. PETT

Topics include simple and multiple regression analysis, forecasting, time series analysis, and the construction of economic models. Development and presentation of research papers. Prerequisites, Mathematical Sciences 101, 102, 241 or their equivalent; and Economics and Business Administration 242. Three hours per week. Three semester hours.

020—437. SEMINAR IN BUSINESS POLICY

MR. FULTON AND STAFF

Examination of business policy problems and their solution. The case study method is used, combining written and oral presentations. Prerequisites, senior standing; EcBA 101, 102, 111, 112, 306, 307 and 318. Three hours per week. Three semester hours.

020—440. INTERDISCIPLINARY SEMINAR IN AMERICAN PUBLIC POLICY

STAFF

Selected topics in American public policy. Preparation and discussion of research papers. Open to fourth-year students majoring in American Public Policy. (The same course as 440 under Political Science.) Three hours per week. Three semester hours.

020—464. SEMINAR IN MATHEMATICAL ECONOMICS

STAFF

Topics in Mathematics of particular importance in Economics, with applications. Offered jointly by the Department of Mathematical Sciences and the Department of Economics and Business Administration. A research paper will be required. Prerequisites, Mathematical Sciences 211; Linear Algebra; and Economics and Business Administration, 325, 326 (the latter may be taken concurrently.) Three hours per week. Three semester hours.

020—491. RESEARCH/INDEPENDENT WORK

STAFF

Preparation of independent research paper. Open to candidates for departmental honors. Three semester hours.

020—492. RESEARCH/INDEPENDENT WORK

STAFF

A continuation of course 491. Prerequisite, course 491. Three semester hours.

* This course is not offered in 1981-1982.
025—EDUCATION

PROFESSOR COGGER
PROFESSOR FLETCHER
ASSOCIATE PROFESSOR FAGO

VISITING PROFESSOR KRUG
ASSISTANT PROFESSOR CHAMBLISS
ASSISTANT PROFESSOR DUNGAN
ASSISTANT PROFESSOR RIDEOUT

The Department of Education aims (1) to increase the students' awareness of the function of the school in modern society; (2) to understand forces which cause change in society and to develop a philosophy of education which will be suitable to these changes; (3) to increase the students' understanding of the nature of growth and the development of individuals; (4) to acquaint the students with modern theories of learning; (5) to provide opportunities for future teachers to become acquainted with acceptable practices in the schools; (6) to develop the skills necessary for beginning teachers. The preparation of teachers is a function of the college as a whole.

The Department of Education provides the professional courses required for certification of secondary school teachers in Pennsylvania, New Jersey, Delaware and Maryland, as well as in Ohio, New York and Massachusetts. Teacher certification through Ursinus has been accepted in other states throughout this country, and it is available in most subject areas of the curriculum. Copies of these approved programs are in the hands of the department advisers and should be referred to when planning your yearly registration. Students preparing for requirements of other states should consult the Chairman of the Education Department for information concerning specific requirements of those states. Students preparing for teaching must complete Psychology 101 prior to taking courses in Education. As a prerequisite to student teaching, second-year students are required to observe classes in secondary schools for ten hours, and third-year students in areas other than Physical Education are required to observe classes in secondary schools for twenty hours. For Physical Education majors, at least eight hours of the third-year observation should be in elementary schools. The remainder of the twenty hours for Physical Education majors will be in secondary schools. Information regarding this observation may be obtained in the office of the Department of Education.

Those students who elect student teaching in the fall semester of the senior year have a full semester of professional courses. The following courses will be given in that semester: Education 405, 441, 443, 444.

The following program of studies is required for all students seeking certification in secondary school teaching:

Second year, 2nd semester, Education 202; Third year, Education 223, 224; Fourth year, 1st semester: Education 405, 441, 443 and 444. Education 443 will be satisfied for students who major in Health and Physical Education upon the successful completion of Physical Education 355 and 356.

A minor concentration in Secondary Education consists of Psychology 101 or 102, 223, 224; Education 202, 444, and 434 or 446.

A minor concentration in Secondary School Teaching consists of the same requirements as those for certification in secondary school teaching.

025—202. INTRODUCTION TO SECONDARY SCHOOL TEACHING

DR. COGGER, DR. DUNGAN

An introductory course for those who plan to enter teaching. It deals with the organization, personnel, agencies and characteristics of the American school system, and sketches briefly the characteristics of teaching as a profession and the details of the teacher's responsibility in the classroom and in the school. Open only to sophomores and juniors, not to seniors. Three hours per week. Three semester hours.
025—223. **EDUCATIONAL PSYCHOLOGY — LEARNING** DR. FAGG, DR. RIDEOUT
Contemporary learning theory for teachers. The course takes an information-processing approach to cognition, and includes such topics as concept formation, problem solving, memory, and attention. Educational applications will be stressed. (The same course as 223 under Psychology.) Prerequisite 101 or 102. Three hours per week. Three semester hours.

025—224. **EDUCATIONAL PSYCHOLOGY — GROWTH AND DEVELOPMENT**
DR. FLETCHER, DR. CHAMBLISS
The nature and development of the psychological processes from the prenatal period through adolescence. (The same course as 224 under Psychology.) Prerequisite, Psychology 101 or 102. Three hours per week. Three semester hours.

025—405. **STUDENT TEACHING AND PRACTICUM** DR. COGGER, DR. DUNCAN
A laboratory course consisting of observation and student teaching. Supervision is provided by the Department of Education in cooperation with cooperating teachers from the selected schools. Where possible, supervision will also be provided by members of the college faculty whose interests are those of the subjects which the students teach. Conferences and critiques are held between the college supervisors and student teachers. A practicum is held bi-weekly while the student teaching program is in progress, dealing with the analysis of classroom instructional practice and the responsibilities of a beginning teacher. This course is open only to fourth-year students who meet personality and academic requirements. A student who has not acquired an accumulative average of at least 70 by the end of the first term of his junior year will not normally be approved for student teaching. Fall semester. Prerequisites, Education 202, 223, 224, 441, 443, 444. Ten semester hours for Health and Physical Education majors. Nine semester hours for all others.

025—409. **EDUCATIONAL AND PSYCHOLOGICAL TESTS AND MEASUREMENTS**
DR. FLETCHER
An introductory survey of the field of measurement in psychology and education; main features of the technique of testing and test construction; types of tests and scales; evaluation; interpretation; use. (The same course as 409 under Psychology.) Prerequisites, Psychology 101, 210. Two hours of lecture. Two hours of laboratory per week. Three semester hours.

025—434. **SEMINAR IN SECONDARY EDUCATION**
STAFF
A study of selected topics, drawn from curriculum, which are relevant to secondary education. Two hours per week. Two semester hours.

025—441. **ORIENTATION TO EDUCATIONAL PRACTICE AND METHODOLOGY**
DR. COGGER, DR. DUNGAN
Principles of secondary school teaching; general methods of instruction; problems of the beginning teacher; inter-group sensitivity; the teaching of reading in the content areas; instruction and practice in the utilization of audiovisual methods and materials. Two hours per week. Two semester hours.

025—443. **SPECIAL METHODS OF TEACHING IN THE SECONDARY SCHOOL**
STAFF
Instruction in the techniques appropriate to the teaching of secondary school subjects; units on reading where appropriate. Sections will be formed in the following areas and noted with the designated suffixes on the college records.
COURSES OF INSTRUCTION

(C)—Classical Studies  (R)—Romance Languages
(E)—English  (S)—Science
(G)—Germanic Languages  (X)—Social Science
(M)—Mathematics

Prerequisite, Education 441. One hour per week. One semester hour.

025—444. FOUNDATIONS OF EDUCATION  DR. COGGER, DR. DUNGAN
A study of the philosophical and historical foundations of education and the problems of contemporary education, emphasizing the potential implications not only for the secondary school teacher, but for society in general. A requirement for those preparing to teach, it attempts to synthesize all their preliminary study and practice in their teacher education. It can be a valuable liberalizing course for those who do not prepare for teaching. Three hours per week. Three semester hours.

025—446. ISSUES AND TRENDS IN CONTEMPORARY EDUCATION  DR. COGGER
A study of major educational problems and trends, including teaching of values, humanism in education, open education and alternative programs, equalizing educational opportunity, accountability, and relevance in education. Societal factors and values related to these problems will be stressed. Three hours per week. Three semester hours.

ENGLISH

PROFESSOR STOREY  ASSOCIATE PROFESSOR HENRY
PROFESSOR BOZORTH  ASSOCIATE PROFESSOR WICKERSHAM
PROFESSOR DOLMAN  ASSISTANT PROFESSOR PERRETEN
ASSOCIATE PROFESSOR JONES  ASSISTANT PROFESSOR RICHTER
ASSOCIATE PROFESSOR BYERLY  MRS. EDWARDS
ASSOCIATE PROFESSOR De CATUR  MR. HILL

Majors must take at least thirty semester hours in English beyond Composition 101, 102. To complete departmental requirements, in their senior year majors must pass a comprehensive examination in English and American Literature. Most students majoring in English will be strongly urged to take the following courses: History 101, 102; History 309, 310 or 311, 312; Literature 203, 204; and Literature 219, 220. Students preparing for graduate study in English should elect French and German as their modern languages. Study in classical languages is also recommended for such students as is Literature 213. Required of students who want to be certified to teach English is Literature 214.

Students will be guided in selecting courses that will help prepare them for the comprehensive examination as well as for their careers.

A minor concentration in English consists of 18 credits in English, excluding Composition 101, 102. Either Literature 203 and 204, or 219 and 220 are strongly recommended.

031—Composition

031—101. FIRST-YEAR COMPOSITION  STAFF
Practice in the writing of exposition; readings in narrative and expository prose. Three hours per week. Three semester hours.

031—102. FIRST-YEAR COMPOSITION  STAFF
Continuation of Composition 101; readings in poetry and drama. Prerequisite, Composition 101. Three hours per week. Three semester hours.
031—205. ADVANCED COMPOSITION MR. DOLMAN
Discussion of and practice in current types of fictional writing, with emphasis on the short story. Prerequisite, Composition 101, 102. Two hours per week. Two semester hours.

031—207. INTRODUCTION TO JOURNALISM STAFF
An introduction to journalistic writing and interpretive reporting. Work on college publications is recommended to provide practical experience. Prerequisite, Composition 101, 102 or its equivalent. Three hours per week. Three semester hours.

031—234. SECOND-YEAR COMPOSITION: ADVANCED EXPOSITORY WRITING MR. DOLMAN
Practice, on an advanced level, in the writing of non-fictional prose, with special emphasis on types of exposition. Prerequisite, Composition 101, 102 or its equivalent. Three hours per week. Three semester hours.

031—308. ADVANCED COMPOSITION MR. DOLMAN
A conference course in creative writing offering the student opportunity to practice his favorite type of composition. Enrollment is limited to twelve qualified students by arrangement with the instructor. Prerequisite, Composition 101, 102. Individually scheduled. Two semester hours.
Composition 308 is offered in both the fall and the spring semesters.

032—Literature

032—203. SURVEY OF ENGLISH LITERATURE STAFF
The history of English Literature from its beginnings to the end of the neoclassical era. Special attention is given to the social background. Three hours per week. Three semester hours.

032—204. SURVEY OF ENGLISH LITERATURE STAFF
A continuation of course 203 to the present. Three hours per week. Three semester hours.

032—209. SHAKESPEARE DR. DECATUR, DR. HENRY
The reading of Shakespeare’s principal plays and the study of their background. Three hours per week. Three semester hours.

032—210. SHAKESPEARE DR. DECATUR, DR. HENRY
Continuation of Literature 209. Literature 209 is not a prerequisite for Literature 210. Three hours per week. Three semester hours. Literature 209 and 210 are elective for second-year, third-year and fourth-year students.

032—213. HISTORY OF THE ENGLISH LANGUAGE DR. BYERLY
A survey of the development of the English language from Old English to modern American and British English. Close analysis of samples of English in at least three stages of its history. Three hours per week. Three semester hours.

032—214. LINGUISTICS AND MODERN GRAMMAR DR. BYERLY
This course prepares future teachers to utilize a variety of current approaches to English grammar. Although transformational-generative theory is emphasized, traditional and structural grammars are also discussed. Three hours per week. Three semester hours.
032—219. **AMERICAN LITERATURE**

Dr. Byerly, Dr. Bozorth

A survey of American literature from its beginning to the Civil War. Three hours per week. *Three semester hours.*

032—220. **AMERICAN LITERATURE**

Dr. Byerly, Dr. Bozorth

American literature from the Civil War to the present. Prerequisite, Literature 219. Three hours per week. *Three semester hours.*

*Literature 219 and 220 are elective for second-year, third-year and fourth-year students.*

*032—305. **ENGLISH LITERATURE FROM 1660 TO 1740**

Dr. Perretten

The literature of the Restoration and the early decades of the eighteenth century. Three hours per week. *Three semester hours.*

*Literature 305 is elective for third-year and fourth-year students.*

*032—306. **ENGLISH LITERATURE FROM 1740 TO 1795**

Dr. Perretten

The literature of the neo-classical age and of pre-romanticism. Three hours per week. *Three semester hours.*

*Literature 306 is elective for third-year and fourth-year students.*

032—307. **ENGLISH POETRY, 1790-1824**

Dr. Perretten

A study of the English Romantic poets from 1790 to the death of Byron. Three hours per week. *Three semester hours.*

*Literature 307 is elective for third-year and fourth-year students.*

032—308. **ENGLISH POETRY, 1824-1890**

Mr. Jones

A study of the poetry of Tennyson and his contemporaries. Three hours per week. *Three semester hours.*

*Literature 308 is elective for third-year and fourth-year students.*

032—315. **TWENTIETH CENTURY POETRY**

Dr. Bozorth

A study of modern poetry written in Britain and America. Three hours per week. *Three semester hours.*

032—320 through 326. **CLASSICS IN TRANSLATION**

Dr. Wickersham

Each course in this series gives a thorough study of one area of ancient Greek or Roman experience, thought and literature.

*032—320. **COMEDY.** Three hours per week. *Three semester hours.*

*032—322. **EPIC.** Three hours per week. *Three semester hours.*

*032—324. **TRAGEDY.** Three hours per week. *Three semester hours.*

*032—326. **MYTHOLOGY.** Three hours per week. *Three semester hours.*

*032—327. **CRITICAL THEORY AND PRACTICE**

Dr. Byerly

A survey of critical approaches to literature from Sir Philip Sidney’s *The Defense of Poesy* to the present, emphasizing the practical application of critical principles in the student’s own writing. Alternates with Literature 329. Three hours per week. *Three semester hours.*

032—329. **CHAUCER**

Dr. Byerly

A study of Chaucer’s poetry in its historical context, including *Troilus and Criseyde, The Canterbury Tales,* and some of the short poems. Alternates with Literature 327. Three hours per week. *Three semester hours.*

*This course is not offered in 1981-1982.*
032—330. **ENGLISH NON-DRAMATIC LITERATURE, 1485-1660**  
DR. DeCATUR  
A study of the non-dramatic poetry and prose of the English Renaissance, with 
concentration upon the works of Malory, More, Sidney, Spenser, Browne, and the 
metaphysical poets. Prerequisite, Literature 203 or History 303, 304. Three hours per 
week. *Three semester hours.*  
Literature 330 alternates with Literature 331.

*032—331. **ENGLISH DRAMA, BEGINNINGS TO 1642**  
DR. DeCATUR  
A study of the development of English drama (excluding Shakespeare) through the 
Medieval and Renaissance periods up to the closing of the theaters. Prerequisites, 
Literature 203 and Literature 209 or 210. Three hours per week. *Three semester hours.* 
Literature 331 alternates with Literature 330.

*032—332. **MILTON**  
DR. STOREY  
The reading of Milton's poetry and most important prose works and the study of 
their background. Prerequisite, Literature 203 or History 303, 304. Three hours per 
week. *Three semester hours.*

*032—334. **THE NOVEL IN ENGLAND SINCE THE BEGINNING 
OF THE TWENTIETH CENTURY**  
DR. BOZORTH  
A study of British fiction of the twentieth century. Three hours per week. *Three 
semester hours.*  
Literature 334 alternates with Literature 434.

*032—335. **MODERN DRAMA**  
DR. HENRY  
A reading and discussion course in significant European and American dramatists, 
from Ibsen to O'Neill, with emphasis on influences of earlier playwrights on modern 
writers. Prerequisite, English Composition 101. Three hours per week. *Three semester hours.*

*032—336. **CONTEMPORARY DRAMA**  
DR. HENRY  
A reading and discussion course in significant contemporary European and American 
dramatists, since World War II. Prerequisite, English Composition 101. Three hours per 
week. *Three semester hours.*  
Literature 335 and 336 alternate with Communication Arts 301, 302.

032—337. **THE NOVEL IN ENGLAND AND AMERICA— 
THE BEGINNINGS TO 1820**  
MR. JONES  
A study of the origins and development of the novel in England and America before 
Dickens and Cooper. Prerequisite, English Composition 101. Three hours per week. 
*Three semester hours.*  
Literature 337 alternates with Literature 339.

*032—339. **THE NOVEL IN ENGLAND AND AMERICA DURING THE 
VICTORIAN ERA**  
MR. JONES  
A study of the development of the novel in England and America from 1820 to 1900. 
Prerequisite, English Composition 101. Three hours per week. *Three semester hours.* 
Literature 339 alternates with Literature 337.

032—434. **THE NOVEL IN AMERICA SINCE THE BEGINNING 
OF THE TWENTIETH CENTURY**  
DR. BOZORTH  
A study of American fiction of the twentieth century. Three hours per week. *Three 
semester hours.*  
Literature 434 alternates with Literature 334.

* This course is not offered in 1981-1982.
032—440. SENIOR SEMINAR
DR. BYERLY
A study of key works and major trends in English and American literature. Open only to senior English majors. Three hours per week. Three semester hours.

032—441. SEMINAR IN ADVANCED STUDIES IN LITERATURE
STAFF
A study of genre. Prerequisite, junior or senior standing. Three hours per week. Three semester hours.

032—442. SEMINAR IN ADVANCED STUDIES IN LITERATURE
STAFF
A study of a major author. Prerequisite, junior or senior standing. Three hours per week. Three semester hours.

*032—443. SEMINAR IN ADVANCED STUDIES IN LITERATURE
STAFF
A study of a major author. Prerequisite, junior or senior standing. Three hours per week. Three semester hours.

032—491. RESEARCH/INDEPENDENT WORK
STAFF
This course is open to candidates for departmental honors and to other students with the permission of the department chairman. Three semester hours.

032—492. RESEARCH/INDEPENDENT WORK
STAFF
A continuation of course 491. Prerequisite, course 491. Three semester hours.

080—FINE ARTS
ASSISTANT PROFESSOR XARAS

To earn a minor concentration in Creative and Performing Arts, a student must not only demonstrate a broad knowledge of the visual arts, music, and theatre, but must also pursue a specific study in one of the creative disciplines. A Creative and Performing Arts Minor Concentration shall consist of 22 to 24 credits in History 327, 328; Music 215, 216; Communication Arts 301, 302; one sequence of Fine Arts 303, 304 or Communication Arts 401, 402 or 411, 412; Fine Arts 400.

080—201. APPRECIATION OF THE FINE ARTS
MR. XARAS
An integrated study of the visual, audio and performing arts. Three hours per week. Three semester hours. Enrollment limited to 60.

080—202. APPRECIATION OF THE FINE ARTS
MR. XARAS
A continuation of Fine Arts 201. Prerequisite, Fine Arts 201. Three hours per week. Three semester hours. Enrollment limited to 60.

080—303. PAINTING AND THE PLASTIC ARTS
MR. XARAS
Theory of painting and the plastic arts. Three hours per week. Three semester hours. Enrollment limited to 18 per section.

080—304. PAINTING AND THE PLASTIC ARTS
MR. XARAS
A continuation of Fine Arts 303. Prerequisite, Fine Arts 303. Three hours per week. Three semester hours. Enrollment limited to 18 per section. See also History 327, 328.

080—400. SPECIAL PROJECT IN THE CREATIVE AND PERFORMING ARTS
STAFF
A creative project to be supervised and approved by the faculty of music, communication arts and fine arts. Two semester hours.

* This course is not offered in 1981-1982.
034—GEOGRAPHY

034—102. GEOGRAPHY STAFF
Extensive study of the major regions of the world. The purpose is to analyze each from the standpoint of climate, natural resources, and economic problems, and to give the student a fairly detailed knowledge of the physical geography of the regions. Three hours per week. Three semester hours.

033—GEOLOGY

VISITING PROFESSOR BOGERT
The science of geology presents to the student the fundamental concepts of the earth and its relationship to the economic and cultural worlds of man.

033—101. PHYSICAL GEOLOGY MR. BOGERT
The analysis of earth materials, structures, and processes that form the earth's surface. Two hours of lecture and two hours of laboratory work per week. Three semester hours.

033—102. HISTORICAL GEOLOGY MR. BOGERT
A systematic study of the earth's historic events as recorded by geologic processes and organic evolution. Two hours of lecture and two hours of laboratory work per week. Three semester hours.

035—GERMAN

ASSISTANT PROFESSOR CLOUSER VISITING PROFESSOR GLASS
ASSISTANT PROFESSOR LLOYD VISITING PROFESSOR THELEN
The goals of the Department of German are the development of linguistic skills in German and instruction in aesthetic and critical appreciation of German Literature. Majors are required to take at least thirty semester hours in German beyond German 203-204, and twelve hours of study in another language. German 305, 306, 309, and 310 are required courses. At least eighteen semester hours must be taken on the 300-level (not including 312). In the senior year, majors must pass a comprehensive departmental examination. It is recommended that students preparing for graduate study in German elect French and/or Latin as supplemental languages, and the following complementary courses from other departments: History 101, 102, 301, 302, 303, 305, 320, 321, 328; English 203, 204, 209, 210, 322, 324, 326; Philosophy 101, 102.
A minor concentration in German consists of German 305 and 306, and 12 credits from the following: German 307, 308, 309, 310, 413, 414, 415, 416, 419, 420. German 312 may be included if it is not used to fulfill the College language requirement for graduation.

035—101. ELEMENTARY GERMAN STAFF
Introduction to grammar, conversation and culture. Three hours in class per week. One hour per week in the language laboratory. Three semester hours.

035—102. ELEMENTARY GERMAN STAFF
Continuation of 101. Should not be taken separately. Three hours in class per week. One hour per week in the language laboratory. Three semester hours.

035—203. INTERMEDIATE GERMAN STAFF
Grammar review, composition and conversation, and an introduction to the Germanic literary and cultural heritage. Prerequisite German 102 or equivalent. Three hours per week in class. One hour per week in the language laboratory. Three semester hours.
035—204. **INTERMEDIATE GERMAN**

Continuation of 203. Prerequisite, German 203. Three hours in class per week. One hour per week in the language laboratory. *Three semester hours.*

035—305. **SURVEY OF GERMAN LITERATURE: BEGINNINGS TO 1750**

Representative literature from the Old High German Period to the Age of Enlightenment. Prerequisite, 204 or equivalent. Three hours per week. *Three semester hours.*

035—306. **SURVEY OF GERMAN LITERATURE: 1750 TO PRESENT**

Representative literature from the Age of Enlightenment to the Modern Period. Prerequisite, 204 or equivalent. Three hours per week. *Three semester hours.*

035—307. **STUDIES IN GERMAN LITERATURE**

A study of Hartmann von Aue’s masterpiece, *Der arme Heinrich,* with concentration upon the ideals and values presented in the legend as compared with those found in other medieval works. Prerequisite, German 306 or equivalent. Three hours per week. *Three semester hours.*

035—308. **STUDIES IN GERMAN LITERATURE**

A study of representative medieval German love lyricists with special emphasis given to Walther von der Vogelweide. Prerequisite, German 306 or equivalent. Three hours per week. *Three semester hours.*

035—309. **CONVERSATION AND COMPOSITION**

Practice in oral elements of the language, written composition, and advanced grammar. Prerequisite, 204 or equivalent. Three hours per week. *Three semester hours.*

035—310. **CONVERSATION AND COMPOSITION**

Continuation of 309. Prerequisite, German 305 or 309. Three hours per week. *Three semester hours.*

035—311. **RESEARCH AND INDEPENDENT STUDY**

Prerequisite: A minimum of three semester hours of courses in German at the 300 level or higher and approval of the Chairman of the German Department. *Three semester hours.*

035—312. **SCIENTIFIC GERMAN**

Reading of scientific texts and contemporary scientific literature (completion of grammar review for intermediate students). German 203—312 fulfills the language requirement for graduation for majors in physical and natural sciences. Prerequisite, 203 or equivalent. Three hours per week. *Three semester hours.*

*035—413. **SEMINAR IN THE LITERATURE OF THE EIGHTEENTH CENTURY: GOETHE**

A study of the poetic, dramatic and prose masterpieces of Goethe. Prerequisites, 305 and 306. Three hours per week. *Three semester hours.*

*035—414. **SEMINAR IN THE LITERATURE OF THE EIGHTEENTH CENTURY: SCHILLER**

A study of the poetic, dramatic, and prose masterpieces of Schiller. Prerequisites, 305 and 306. Three hours per week. *Three semester hours.*

*035—415. **SEMINAR IN THE LITERATURE OF THE NINETEENTH CENTURY: FICTION**

Authors studied include the Romantics, Kleist, Stifter, Heine, Keller, Meyer, and others. Prerequisites, 305 and 306. Three hours per week. *Three semester hours.*

* This course is not offered in 1981-1982.
035-416. **SEMINAR IN THE LITERATURE OF THE NINETEENTH CENTURY: DRAMA**

Authors studied include Kleist, Grabbe, Ludwig, Büchner, Hebbel, and Grillparzer. Prerequisites, 305 and 306. Three hours per week. **Three semester hours.**

035-419. **SEMINAR IN GERMAN LITERATURE**

A comprehensive study of a genre, the works of a major writer, or of a literary movement or motif. Prerequisites, 305 and 306. Three hours per week. **Three semester hours.**

035-420. **SEMINAR IN THE LITERATURE OF THE TWENTIETH CENTURY**

A study of the major dramatists of naturalism, Impressionism, Neo-Romanticism, and Expressionism. Prerequisites, 305 and 306. Three hours per week. **Three semester hours.**

035-421. **RESEARCH AND INDEPENDENT STUDY**

Prerequisite: A minimum of six semester hours of courses in German at the 300 level or higher and approval of the Chairman of the German Department. **Three semester hours.**

035-491. **RESEARCH/INDEPENDENT WORK**

This course is open to candidates for departmental honors and to other students with the permission of the department chairman. **Three semester hours.**

035-492. **RESEARCH/INDEPENDENT WORK**

A continuation of course 491. Prerequisite, course 491. **Three semester hours.**

**GREEK**

See under Classical Languages

**040—HEALTH AND PHYSICAL EDUCATION**

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<th>Position</th>
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<td>Assistant Professor Davidson</td>
<td>Mr. Cash</td>
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<tr>
<td>Professor Gurzynski</td>
<td>Miss Chlad</td>
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<tr>
<td>Associate Professor Whatley</td>
<td>Mrs. Poley</td>
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<td>Associate Professor Boyd</td>
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<td>Assistant Professor Karas</td>
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<td>Assistant Professor Morrison</td>
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The Health and Physical Education Department serves dual functions: (1) to provide for all students a diversified Service Program of activities, and (2) to offer to those students interested in majoring in the field, a comprehensive Professional Program in Health and Physical Education leading to teaching certification in these areas.

Included in the Service Program are the required two-hour freshman classes in basic activities, the optional organized intramural programs for men and women, and the provision of recreational facilities for use of all students in their leisure time.

The Professional Program is a four-year course, offering, within the framework of a broad Liberal Arts education, the opportunity to receive specific training in the field of Health and Physical Education. Implicit in its objectives are the development of the total individual in knowledge, skills, habits and attitudes, the development of social and professional competencies, the growth of insight, independent thought, initiative and leadership, and the evolution of a dynamic ethical philosophy.

*This course is not offered in 1981-1982.*
Students majoring in Health and Physical Education must take the following courses: Physical Education 131, 132, 241 or 243, 244, 351, 352, 355, 356, 361, 368, 462, 464; Activities 100, 103, 104, 105, 106, 107, 108, 109, 200, 201, 202, 205, 206, 207, 208, 209, 210, 300, 301, 302, 303, 304, 307, 308, 309; Biology 101, 102, 317, 318; Psychology 101 or 102. Students preparing for teaching must also take prescribed education courses.

A minor concentration in Athletic Training consists of Health and Physical Education 365, 368, 468, 307 and 3½ credits in team sports activities; and Physics 101 and 102 or 111 and 112 or Health and Physical Education 351 and 352; and Biology 317, 318. Recommended courses are Psychology 101, 102; Chemistry 101, 102, or 111, 112.

A minor concentration in Coaching consists of Health and Physical Education 351, 365, 368, 468, four credits of activities courses including 307; Psychology 224; and Biology 317, 318. Recommended courses are Health and Physical Education 363 and 364.

A minor concentration in Recreation consists of Health and Physical Education 241, 242, 243, 462, four credits of activities courses; and Economics 111. Recommended courses are Economics 101, 102, 112; and Health and Physical Education 368.

**Required Activities Courses**

040—110. **INTRODUCTION TO PHYSICAL EDUCATION**  
_STAFF_

This course is designed to acquaint the students with the concepts of total fitness, provide the opportunity for self testing, self evaluation, and the development of corrective programs. This course is required of all students except those majoring in physical education and should be completed in the first year. This course will be offered in both fall and spring semesters. Lecture-Laboratory. _One-half semester hour._

In addition to 040—110, all students except those majoring in physical education will be required to elect a total of 1½ semester hours of activities from the following: Physical Education 010, 014, 017, 019, 022, 027, 031, 032, 033, 034, 037, 039. The intent of these courses will be to develop basic skills, improve fitness, provide enjoyment and develop recreational and social competence through participation in life-time sports.

**Professional Courses**

**Health and Physical Education**

Professional courses offered by the Department of Health and Physical Education are designed for students majoring in Health and Physical Education. Students in other majors may elect such courses, but, except for H & PE 131, 132, 241, 242, 243, 351, 352, 361, 368 or 464, academic credit will be withheld until the student has completed the general college requirements, departmental requirements, and has earned a total of one hundred twenty semester hours credit. An exception will be made in the case of a student who wishes to have Health and Physical Education upon his teaching certificate in addition to another subject matter certification. In such a case, academic credit will be given within the one hundred twenty hour limit. Students should consult the Education Department to learn the exact certification requirements of a particular state.
040—131. *PRINCIPLES AND HISTORY OF PHYSICAL EDUCATION*  
Mr. Davidson  
An orientation course designed to give the student an understanding of the meaning, basic philosophies, principles, and problems of physical education; an analysis of its historical background from the era of primitive man to modern times. Three hours per week. *Three semester hours.*

040—132. *PERSONAL AND COMMUNITY HEALTH*  
Miss Boyd, Mr. Karas  
A study of factors affecting the physical, mental, and social well-being of the individual and the community. Major emphasis is placed upon problems of personal health including disease prevention and the understanding of the functioning of the human body. Three hours per week. *Three semester hours.*

040—242. *LEADERSHIP IN CAMP AND CLUB ACTIVITIES*  
Mr. Whatley  
Discussion of the principles, characteristics, and processes of leadership in light of their significance to directors of camp and club activities. Three hours per week. *Three semester hours.*

040—241. *OUTDOOR EDUCATION*  
Mr. Cash  
The course is designed to provide the student with an insight into the history, philosophy and trends in outdoor education. Emphasis is placed on administrative processes and program development as they relate to the public and private sectors of the community. Three hours per week. *Three semester hours.*

040—243. *FOUNDATIONS OF RECREATION*  
Mr. Cash  
A comprehensive analysis of the leisure-time problem. An examination of the nature, scope, needs and function of recreation programs, and of the social and economic forces affecting them. Three hours per week. *Three semester hours.*

040—244. *PROBLEMS AND MATERIALS OF HEALTH AND SAFETY EDUCATION IN SCHOOL PROGRAMS*  
Miss Boyd  
The scope, responsibility, and function of the health education program in the school with particular stress upon the phases of healthful school living, health service, and safety education. Resource materials are studied and compiled. Two hours per week. *Two semester hours.*

040—351. *KINESIOLOGY*  
Mr. Gurzynski  
An anatomical analysis of the mechanics of body movement and position. A study of the fundamental anatomical concepts in relation to the development of physical education skills. Prerequisite, Biology 317, 318. Two hours per week. *Two semester hours.*

040—352. *PHYSIOLOGY OF ACTIVITY*  
Mr. Gurzynski  
The physiological phenomena underlying physical activity. The anticipatory, immediate, and after effects of exercise on the different organs and the organism as a whole. Class discussion and laboratory demonstration. Prerequisite, Biology 317, 318. Two hours per week. *Two semester hours.*

040—355. *METHODS OF HEALTH INSTRUCTION.*  
Mr. Karas  
Analysis of the principles, materials, and methods involved in the teaching of health at different age levels. Lesson plans and units construction. Open only to physical education majors or students who have completed six hours in Education. Three hours per week. *Two semester hours.*

040—356. *PRINCIPLES AND METHODS OF TEACHING PHYSICAL EDUCATION*  
Miss Morrison  
Principles, methods, and problems of teaching physical educational activities at the elementary and secondary school levels, lesson planning, unit and curriculum construction. Open only to physical education majors or students who have completed six hours in Education. Two hours per week. *Two semester hours.*
COURSES OF INSTRUCTION

040—361. TESTS AND MEASUREMENTS IN PHYSICAL EDUCATION
MISS MORRISON

This course aims to familiarize the student with the nature, function and history of measurement in the field of physical education and to give him working knowledge and practical experience in the use of testing procedures. Three hours per week. Three semester hours.

040—363. OFFICIATING
The course in officiating is designed with particular reference to the needs of prospective coaches and officials. Emphasis will be placed on football (men), field hockey (women), basketball and volleyball (men and women). Three semester hours.

040—364. OFFICIATING
Continuation of 363. Emphasis will be placed on track & field (men), cross country (men), baseball (men), lacrosse (women), softball (women), swimming (men and women). Three semester hours.

040—365. PHILOSOPHY AND PRINCIPLES OF COACHING
This course is designed with reference to the needs of prospective coaches and will center on the principles and philosophies of coaches as well as the developing role of psychology in athletics. Three hours per week. Three semester hours.

040—368. FIRST AID CARE AND PERSONAL SAFETY
MISS CHLAD

The course deals with the causes, preventive procedures and emergency treatment for all types of common injuries. Course work meets the requirements for the Red Cross Standard First Aid and C.P.R. certificates. Two hours per week. Two semester hours.

040—462. ADMINISTRATION OF HEALTH, PHYSICAL EDUCATION, AND RECREATION
MR. DAVIDSON
A study of the administrative problems in health education and physical education. Two hours per week. Two semester hours.

040—464. CORRECTIVE AND ADAPTIVE PHYSICAL EDUCATION
MR. GURZYNSKI
An analysis of conditions affecting the development of atypical children; methods for selecting and classifying such individuals, with particular attention to the adaption of activities to meet their needs. Prerequisite, Biology 317, 318 or permission of instructor. Three hours per week. Three semester hours.

040—466. HEALTH AND PHYSICAL EDUCATION SEMINAR
STAFF
Consideration of current trends and emphasis in the fields of health, physical education and recreation. Lecture, discussion, papers, reports, and guest speakers. Limited to second semester seniors in physical education curriculum. Two hours per week. Two semester hours.

040—468. CARE AND PREVENTION OF ATHLETIC INJURIES
MISS CHLAD
Conditioning exercises, diet, and various therapeutic aids are studies. Laboratory practice includes bandaging, taping, massage, and the clinical use of Physical Therapy equipment. Lecture Lab. Four hours per week. Three semester hours.

Activities Courses—Non-majors

040—010. SOCIAL, FOLK AND SQUARE DANCING
STAFF
One-half semester hour.

040—014. VOLLEYBALL
STAFF
One-half semester hour.

81
040—017. BADMINTON, SQUASH, RACQUETBALL
One-half semester hour.

040—019. JUDO—SELF DEFENSE AND TUMBLING
One-half semester hour.

040—022. MODERN DANCE
One-half semester hour.

040—027. BASIC SWIMMING
One-half semester hour.

040—031. GOLF
One-half semester hour.

040—032. LIFE SAVING
One-half semester hour.

040—033. ARCHERY AND BOWLING
One-half semester hour.

040—034. WATER SAFETY INSTRUCTOR
One semester hour.

040—037. WEIGHT TRAINING AND CONDITIONING
One-half semester hour.

040—039. TENNIS
One-half semester hour.

Activities Courses—Majors

040—100. SOCIAL, FOLK AND SQUARE DANCING
One semester hour.

040—103. SOCCER
One-half semester hour.

040—104. VOLLEYBALL
One-half semester hour.

040—105. WRESTLING
One-half semester hour.

040—106. LACROSSE
One-half semester hour.

040—107. BADMINTON-SQUASH-RACQUETBALL
One-half semester hour.

040—108. MISCELLANEOUS ACTIVITIES — SACKETBALL, WATER POLO, BOX LA CROSSE
One-half semester hour.

040—109. JUDO—SELF DEFENSE AND TUMBLING
One-half semester hour.

040—200. FIELD HOCKEY
One-half semester hour.

040—201. MISCELLANEOUS ACTIVITIES — SPEEDBALL, TEAM HANDBALL, FOOTBALL VARIATIONS
One-half semester hour.

040—202. MODERN DANCE
One-half semester hour.

040—205. FOOTBALL
One-half semester hour.
040—206. BASEBALL
One-half semester hour.

040—207. BASIC SWIMMING
One-half semester hour.

040—208. SOFTBALL
One-half semester hour.

040—209. BASKETBALL
One-half semester hour.

040—210. TRACK AND FIELD
One-half semester hour.

040—300. GYMNASTICS
One semester hour.

040—301. GOLF
One-half semester hour.

040—302. LIFE SAVING
One-half semester hour.

040—303. ARCHERY AND BOWLING
One-half semester hour.

040—304. WATER SAFETY INSTRUCTOR (WSI)
One semester hour.

040—307. WEIGHT TRAINING AND CONDITIONING
One-half semester hour.

040—308. ELEMENTARY ACTIVITIES
One-half semester hour.

040—309. TENNIS
One-half semester hour.

040—401. SYNCHRONIZED SWIMMING
One-half semester hour.

040—402. SKIING AND WINTER SPORTS
One-half semester hour.

040—491. RESEARCH/INDEPENDENT WORK
This course is open to candidates for departmental honors and to other students with the permission of the department chairman. Three semester hours.

040—492. RESEARCH/INDEPENDENT WORK
A continuation of course 491. Prerequisite, course 491. Three semester hours.

045—HISTORY

ASSISTANT PROFESSOR DOUGHTY  PROFESSOR VISSER
PROFESSOR DAVIS  PROFESSOR AKIN
PROFESSOR E. H. MILLER  ASSISTANT PROFESSOR XARAS
PROFESSOR PARSONS  DR. MURPHY

The objectives of the History Department are as follows: to provide an opportunity for students to gain an understanding of western culture and its relationship to other cultures through a knowledge of pertinent historical material; to provide the historical background necessary to the understanding of contemporary world affairs; and, to instruct students in methods of historical research and analysis which can be applied in many different fields of endeavor.
Major in History

Students selecting a major in history must fulfill the basic academic requirements for
the College as they have been established in Tier I of the Ursinus Plan, with the
stipulation that History 101-102 be taken as the required Humanities course. In addition,
the following departmental requirements (Tier II) must be met: History 213-214;
six semester hours of European history from courses numbered 301 through 308;
twelve semester hours in elective history courses, including one history seminar; six
semester hours in American, English, or World Literature; and fifteen additional hours
in the social sciences or philosophy (to be allocated as follows: six semester hours
in each of two different social science disciplines, and three hours in philosophy or
a third social science). To complete departmental requirements for graduation, students
must pass a comprehensive examination in history. (NOTE: history majors preparing
for secondary school teaching certification in social studies should include Sociology
201-202 and Geography 102 in their course of study. History 433-434 and
other courses dealing with the contributions of minority groups are also strongly
recommended.)

Tier III of the Ursinus Plan allows students several options for designing their own
course of study. The History Department encourages all history majors to select a
minor concentration in another academic discipline or in one of the several pre-
professional programs offered by the College (the Pre-Law program or the Department
of Education's Professional Semester, for example). Alternatively, history majors may
select an area of concentration from those offered within the department. These areas
include American History, American Society, Asian and Russian Studies, European
History, European Studies, and Latin American Studies. In order to meet the require-
ments for an area-concentration, a student (in consultation with his or her advisor)
must plan and complete a course of study including no fewer than eighteen semester
hours of history or related courses in that area, in addition to all departmental re-
quirements. (NOTE: no history major is required to select a minor or an area of
concentration, but if the decision is made to do so, the student's course of study
must be planned in consultation with his or her advisor.)

The History Department encourages students from other academic disciplines who
are interested in the study of History for professional purposes or for their own en-
richment to choose an academic minor in the department.

A minor concentration in History consists of a minimum of 18 credits in History,
including one seminar course (History 429, 430, 431, 432) and one course at the 300
or 400 level devoted primarily to the period before 1800. Students may follow a
general course of study or elect to concentrate in European History, United States
History or World History. Students minoring in History are NOT required to take the
comprehensive examination, but may elect to do so, if they choose. (NOTE: Students
intending to minor in History must register with the department and plan their course
of study in consultation with a member of the History Department.)

045—101. EUROPEAN CIVILIZATION

An introductory history of ideas and institutions in European Civilization for the
purpose of providing a general historical background for other courses and for an
understanding of contemporary world affairs. Two lectures and one section meeting
per week. Three semester hours.

045—102. EUROPEAN CIVILIZATION

Continuation of Course 101. Two lectures and one section meeting per week. Three
semester hours.
COURSES OF INSTRUCTION

045—213. **THE UNITED STATES OF AMERICA** DR. PARSONS, DR. MURPHY
Political and cultural history from colonial status to World Power with special emphasis on Pennsylvania. This course is prescribed for all students majoring in history and for any others who are preparing to teach social studies. Three hours per week. **Three semester hours.**

045—214. **THE UNITED STATES OF AMERICA** DR. PARSONS, DR. MURPHY
A continuation of Course 213. Prescribed for all students majoring in history and for any others preparing to teach social studies. Three hours per week. **Three semester hours.**

*045—301. STUDIES IN MEDIEVAL HISTORY* DR. VISSE
An examination of the development of the institutions controlling medieval society, *i.e.* the Church and the nobility. Selected writings from ecclesiastical authors and secular poets and from German and French epics will be read in translation. Three hours per week. **Three semester hours.** (Alternates with 303 and 319.)

*045—302. STUDIES IN MEDIEVAL HISTORY* DR. VISSE
An examination of the forces which changed medieval society; *e.g.* the rise of cities, the emergence of universities, and the monetization of the economy. Selected contemporary writings will be read in translation. Three hours per week. **Three semester hours.** (Alternates with 304 and 320.)

*045—303. STUDIES IN THE RENAISSANCE ERA* DR. VISSE
An examination of the cultural, economic, and social aspects of the Renaissance and their interdependence. Contemporary writings will be used in translation. Three hours per week. **Three semester hours.** (Alternates with 319 and 301.)

*045—304. SIXTEENTH CENTURY STUDIES* DR. VISSE
An examination of the revolution in Christianity and its impact on the social, economic, and political institutions of the age. Contemporary writings will be used in translation. Three hours per week. **Three semester hours.** (Alternates with 320 and 302.)

045—305. **STATE AND SOCIETY IN EARLY MODERN EUROPE** DR. DOUGHTY
A study of the development of absolute monarchy and the modern state in their social, economic, and intellectual context. Three hours per week. **Three semester hours.**

045—306. **THE AGE OF REVOLUTION** DR. DOUGHTY
A study of the "Dual Revolution"—Industrial and political—of the period 1780-1880 and its impact upon European society. Three hours per week. **Three semester hours.**

045—307. **THE TWENTIETH CENTURY** DR. VISSE
A study of the impact of industrialization, neo-imperialism, and nationalism upon the European peoples and their overseas empires in the years leading up to and directly following the first World War. Not open to first-year students. Three hours per week. **Three semester hours.** (Alternates with 341.)

045—308. **THE TWENTIETH CENTURY** DR. VISSE
A continuation of History 307 covering the events leading up to and following the second World War and the problems of contemporary world history. Not open to first-year students. Three hours per week. **Three semester hours.** (Alternates with 342.)

* This course is not offered in 1981-1982.
045—309. **THE MAKING OF BRITAIN**  
DR. DOUGHTY  
A survey of British history from the Anglo-Saxon period to 1688, with emphasis on political and constitutional developments. Three hours per week. *Three semester hours.* (Alternates with 311.)

045—310. **BRITAIN AND THE BRITISH EMPIRE**  
DR. DOUGHTY  
The history of Britain and the British Empire and Commonwealth from 1689 to the present, with emphasis on political and constitutional developments. Three hours per week. *Three semester hours.* (Alternates with 312.)

045—311. **PRE-INDUSTRIAL BRITAIN**  
DR. DOUGHTY  
A study of selected topics in the social and economic history of the British Isles from the earliest Celtic settlements to the seventeenth century. Three hours per week. *Three semester hours.* (Alternates with 309.)

045—312. **BRITAIN: THE FIRST INDUSTRIAL NATION**  
DR. DOUGHTY  
British social and economic history from the beginnings of the Industrial Revolution to the present, with emphasis on the social effects of Britain's rise and eventual decline as an industrial power. Three hours per week. *Three semester hours.* (Alternates with 310.)

045—315. **HISTORY OF UNITED STATES FOREIGN RELATIONS**  
MR. DAVIS  
A study of United States foreign relations from revolutionary era to the present. Three hours per week. *Three semester hours.* (Given in the fall semester, alternate years.)

045—316. **WAR AND DIPLOMACY IN EUROPE**  
DR. DOUGHTY  
A study of the evolution of modern statecraft and warfare from the Renaissance to the 20th century. Diplomacy, foreign policy, military organization and strategy will be examined against the background of intellectual, social, and technological change. Three hours per week. *Three semester hours.* (Given in the spring semester, alternate years.)

045—317. **LATIN AMERICA**  
DR. MILLER  
Political and cultural backgrounds of South and Central American nations and their relation to the interests and policy of the United States. Three hours per week. *Three semester hours.* (Alternates with 323.)

045—318. **LATIN AMERICA**  
DR. MILLER  
A continuation of History 317. Three hours per week. *Three semester hours.* (Alternates with 324.)

045—319. **STUDIES IN ANCIENT HISTORY**  
DR. VISSE  
An examination of the emergence of religious and intellectual concepts in the Ancient Near East, with an emphasis on their definition by the Hebrews. Contemporary writings will be used in translation. Three hours per week. *Three semester hours.* (Alternates with 301 and 303.)

045—320. **STUDIES IN ANCIENT HISTORY**  
DR. VISSE  
An examination of the emergence of intellectual, legal, and social concepts, with emphasis on their formulation as the roots of Western Civilization. Contemporary writings will be read in translation. Three hours per week. *Three semester hours.* (Alternates with 302 and 304.)

045—321. **MIDDLE EAST**  
MR. DAVIS  
A study of the Byzantine, Persian, and Moslem empires in the middle ages. Three hours per week. *Three semester hours.* (Alternates with 325.)

*This course is not offered in 1981-1982.*
045-322. MIDDLE EAST  
MR. DAVIS  
The Moslem World and the Middle East under the Ottoman Empire and in modern times. Three hours per week. Three semester hours. (Alternates with 326.)

045-323. EAST, SOUTHEAST AND SOUTH ASIA  
DR. MILLER  
History of the Asiatic Mainland and the Pacific Islands. Three hours per week. Three semester hours. (Alternates with 317.)

045-324. EAST, SOUTHEAST AND SOUTH ASIA  
DR. MILLER  
A continuation of History 323. Three hours per week. Three semester hours. (Alternates with 318.)

045-325. POLITICAL AND SOCIAL HISTORY OF RUSSIA  
MR. DAVIS  
An examination of the political, social, economic, and cultural conditions of the medieval and modern periods of Russian development through the imperial era to the end of the nineteenth century. Three hours per week. Three semester hours. (Alternates with 321.)

045-326. POLITICAL AND SOCIAL HISTORY OF RUSSIA  
MR. DAVIS  
An examination of the history of the Soviet Union, the sources of its institutions, and its role in the contemporary world. Three hours per week. Three semester hours. (Alternates with 322.)

045-327. HISTORY OF ART  
MR. XARAS  
An introduction to the history of architecture, sculpture and painting, both Occidental and Oriental, presented by means of illustrated lectures and museum trips. Prerequisite, History 101, 102 or Philosophy 101, 102 Three hours per week. Three semester hours.

045-328. HISTORY OF ART  
MR. XARAS  
A continuation of History 327. Prerequisite, History 327. Three hours per week. Three semester hours.

045-335. COLONIAL AMERICA  
DR. PARSONS  
Economic and social beginnings of colonial settlements in North America through the achievement of independence in 1783. Special attention to demographic change. Three hours per week. Three semester hours. (Given in alternate years, fall semester.)

045-336. CIVIL WAR AND RECONSTRUCTION  
DR. PARSONS  
Social and economic background; sectionalism and war, with emphasis upon logistical and demographic problems and results. Three hours per week. Three semester hours. (Alternates with 340.)

045-337. THE EMERGENCE OF MODERN AMERICA  
DR. AKIN  
An examination of social and economic change in the United States from the 1880's to the 1920's. Three hours per week. Three semester hours.

045-338. RECENT UNITED STATES HISTORY  
DR. AKIN  
An examination of social and economic change in the United States from the 1920's to the contemporary era. Three hours per week. Three semester hours.

045-339. MINORITIES IN AMERICA  
STAFF  
A study of minority groups in American history and society with particular attention to migration patterns, problems of identity and adjustment, and minority contributions to American life. Three hours per week. Three semester hours.

* This course is not offered in 1981-1982.
URSINUS COLLEGE BULLETIN

*045—340. WESTWARD MOVEMENT DR. PARSONS
Lure of the West and the ensuing settlement and development, to the closing of the Frontier. Social and economic implications and problems. Three hours per week. Three semester hours. (Alternates with 336.)

*045—341. THE EMERGENCE OF MODERN BUSINESS SOCIETY DR. VISSER
This course concentrates on the development of modern business institutions and their social and political impact on society in the pre-industrial era. Three hours per week. Three semester hours. (Alternates with 307.)

*045—342. THE EMERGENCE OF MODERN BUSINESS SOCIETY DR. VISSER
A continuation of 045—341. By means of a comparative study of Germany and the United States, this course will examine the nature and consequences, of the establishment of "Big Business"—e.g. trusts, cartels and international corporations—in the 19th and 20th centuries. Three hours per week. Three semester hours. (Alternates with 301.)

*045—409. SEMINAR TOPICS IN THE HISTORY OF THE CITY DR. VISSER
Students will explore the emergence of the city as a force of social, economic and cultural change by means of a comparative study of representative cities in the Ancient, Medieval, and Modern worlds. Three hours per week. Three semester hours. (Alternates with 411.)

045—411. SEMINAR: TOPICS IN THE HISTORY OF SCIENTIFIC IDEAS DR. VISSER
Students will explore the relationship between socio-cultural ideologies and the development of scientific ideas by means of a comparative study of several outstanding scientists from successive periods in history. Three hours per week. Three semester hours. (Alternates with 409.)

045—429. SEMINAR IN THE HISTORY OF EUROPE, OR ASIA, OR AFRICA STAFF
Preparation and discussion of research papers. Open to third-year and fourth-year students with the permission of the instructor. Three hours per week. Three semester hours.
The requirement of History 429 may be met by students who complete a special summer course of European travel and research conducted by a member of the Department of History of Ursinus College.

045—430. SEMINAR IN THE HISTORY OF ASIA, OR AFRICA, OR EUROPE STAFF
Preparation and discussion of research papers. Open to third-year and fourth-year students with the permission of the instructor. Three hours per week. Three semester hours.

045—431. SEMINAR IN THE HISTORY OF AMERICA DR. AKIN
Preparation and discussion of research papers. Open to third-year and fourth-year students with the permission of the instructor. Three hours per week. Three semester hours.

045—432. SEMINAR IN THE HISTORY OF AMERICA DR. PARSONS
Preparation and discussion of research papers. Open to third-year students with the permission of the instructor. Three hours per week. Three semester hours.

* This course is not offered in 1981-1982.
045-449. RESEARCH STAFF
Independent research, under the guidance of an advisor, directed toward the production of an historical project or paper. Open only to fourth-year students with the permission of the Chairman of the Department of History. Three semester hours.

045-491. RESEARCH/INDEPENDENT WORK STAFF
This course is open to candidates for departmental honors and to other students with the permission of the department chairman. Three semester hours.

045-492. RESEARCH/INDEPENDENT WORK STAFF
A continuation of course 491. Prerequisite, course 491. Three semester hours.

INTERNATIONAL RELATIONS
See under Combined Majors

050—MATHEMATICAL SCIENCES

ASSOCIATE PROFESSOR JESSUP
PROFESSOR SCHULTZ
ASSOCIATE PROFESSOR BREMILLER

ASSISTANT PROFESSOR SHUCK
ASSISTANT PROFESSOR HAGELGANS
ASSISTANT PROFESSOR COLEMAN

The general aims of the Department of Mathematical Sciences are (1) to give the students a grasp of the ideas and methods of mathematics; (2) to develop an understanding and appreciation of mathematics as an abstract deductive system; (3) to give the students an appreciation of the historical importance of mathematics in the progress of civilization, both past and present; and (4) to provide the students with sufficient skills to enable them to apply their knowledge to related fields of study.

For mathematics majors, the Department aims to provide stimulation and preparation for (1) continued study at the graduate level; or (2) effective teaching in the secondary schools; or (3) employment in industrial research, statistics, computing, or actuarial positions. For other majors, it seeks to provide the mathematical competence required by the increasing quantitative emphasis in many of these disciplines.

Beginning in 1980-81 courses in the Mathematical Sciences were renumbered as follows. Old numbers appear in parenthesis, if different.

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### REQUIREMENTS FOR MAJORS

A student majoring in the Mathematical Sciences is required to take Physics 111 (Int.), 112 (Int.) and Mathematical Sciences 111 (Int.), 112 (Int.), 211, 235, 236, 311 and 335. (*) Each major also is required to complete at least one of the following four area concentrations.

**I. Abstract Mathematics**
This program is recommended for those planning to do post-graduate work in mathematics. The required courses are Mathematical Sciences 312, 321, 336, 411.

**II. Applications**
This program is recommended for those planning to seek jobs in industry. The required courses are Mathematical Sciences 212, 461, 462 and at least one of 341, 342, 411.

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COURSES OF INSTRUCTION

III. Secondary Teaching (*)
This program is recommended for those preparing to be teachers. The required courses are Mathematical Sciences 322, 341 and at least two of 271, 321, 342, 434, 461.

IV. Computer Science
This program is recommended for those preparing for work in the computing field. The required courses are Mathematical Sciences 271, 272, 371, 372 and at least one of 471, 472.

(*) Those students choosing the secondary teaching concentration may substitute Mathematical Sciences 336 for 311, or 312 for 335.

Advanced Concentration in the Mathematical Sciences
Mathematical Sciences majors not minoring in another discipline are urged strongly to take an advanced concentration in the mathematical sciences. Such a program consists of an additional fifteen semester hours of Mathematical Sciences courses above Mathematical Sciences 211, but excluding 241-242.

For example, the student may elect to satisfy the requirements of a second area concentration from the list of four above. Alternatively, courses from several areas of the mathematical sciences may be selected to achieve breadth. In any case, the program must be approved by the student’s advisor.

INTERDISCIPLINARY MAJOR
The Mathematical Sciences Department participates in an interdisciplinary major in Applied Mathematics/Economics. For additional information and course requirements, see the listings under Combined Majors.

MINOR CONCENTRATIONS
A minor concentration in Computer Science consists of Mathematical Sciences 102 or 111; 271, 272, 241 or 341; and six credits chosen from 371, 372, 471, 472. Students are urged to select 371, 372, if possible. The Mathematical Sciences 102 or 111 requirement may be waived by the department chairman.


050—101. FUNDAMENTALS OF MODERN MATHEMATICS
MR. BREMILLER
A treatment of the ideas that are especially pervasive in modern mathematics: sets, functions, operations, and relations; with emphasis on topics from algebra that are needed to pursue successfully courses in calculus with analytic geometry and statistics. Mathematical Sciences 101 and 102 are not open to mathematics majors. Three hours per week. Three semester hours.

050—102. FUNDAMENTALS OF MODERN MATHEMATICS
MR. BREMILLER, DR. JESSUP
A further development of modern mathematics with a greater emphasis on analysis and the study of integral and differential calculus. Mathematical Sciences 101 and 102 are not open to mathematics majors. Prerequisite, Mathematical Sciences 101 or equivalent. Three hours per week. Three semester hours.
050—111. (Int.) **CALCULUS AND ANALYTIC GEOMETRY I**  
MISS SCHULTZ  
A study of the calculus of functions of one variable, with analytic geometry and applications to physics. This course is integrated with and therefore must be taken concurrently with Physics 111 (Int.) or with permission of the instructor. Three hours per week. **Three semester hours.**

050—112. (Int.) **CALCULUS AND ANALYTIC GEOMETRY II**  
MISS SCHULTZ  
A continuation of Mathematical Sciences 111 (Int.). This course must be taken concurrently with Physics 112 (Int.) or with permission of the instructor. Prerequisite, Mathematics 111 (Int.). Three hours per week. **Three semester hours.**

050—111. **CALCULUS AND ANALYTIC GEOMETRY I**  
DR. SHUCK  
A study of the calculus of functions of one variable, with analytic geometry and applications. Three hours per week. **Three semester hours.**

050—112. **CALCULUS AND ANALYTIC GEOMETRY II**  
DR. SHUCK  
A continuation of Mathematical Sciences 111. Prerequisite, Mathematical Science 111. Three hours per week. **Three semester hours.**

050—171. **INTRODUCTION TO COMPUTER SCIENCE**  
DR. JESSUP  
The computer as a problem-solving tool, with emphasis on problems in the social sciences and humanities. Instruction in BASIC, with heavy emphasis on data and string manipulation. Three hours per week. **Three semester hours.** Mathematical Sciences 171 is offered in both fall and spring semesters.

050—211. **INTERMEDIATE CALCULUS**  
DR. HAGELGANS  
A continuation of Mathematical Sciences 112, with emphasis on functions of more than one variable, including three-dimensional geometry, partial differentiation, and multiple integration; introduction to vector calculus; study of infinite series; applications. Prerequisite, Mathematical Sciences 112 (Int.) or 112. Three hours per week. **Three semester hours.**

050—212. **DIFFERENTIAL EQUATIONS**  
DR. HAGELGANS  
Solutions of ordinary differential equations of first and second order, with applications to problems in the physical sciences. Additional topics chosen from power series solutions, systems of linear equations, numerical methods, Laplace transforms. Prerequisite, Mathematical Sciences 211. Three hours per week. **Three semester hours.**

050—235. **LINEAR ALGEBRA**  
DR. JESSUP  
Systems of linear equations, matrix theory, linear transformations, eigenvectors and eigenvalues, inner product, orthogonal transformations, quadratic forms, applications. Prerequisite: Mathematical Sciences 112 or permission of the instructor. Three hours per week. **Three semester hours.** (This course replaces Mathematics 233-234.)

050—236. **INTRODUCTION TO ABSTRACT MATHEMATICS**  
DR. JESSUP  
This course is designed to bridge the gap between problem-solving, computation-oriented introductory courses, and abstract, proof-oriented advanced courses. Emphasis will be placed on the language of contemporary mathematics (including the proper way to write mathematics), and on the nature of mathematical reasoning. Topics studied may include axiomatic systems, logic, set theory and number systems. Prerequisite, Mathematical Sciences 235. Three hours per week. **Three semester hours.**

050—241. **STATISTICS I**  
DR. COLEMAN  
Statistical methods of studying data, measures of central tendency and dispersion, probability, distributions including: binomial, normal, student-t, and chi-square; hypothesis testing. Three hours per week. **Three semester hours.**
COURSES OF INSTRUCTION

050—242. STATISTICS II  DR. COLEMAN
A continued study of basic statistical techniques including basic concepts of experimental design, techniques of analysis of variance, methods of regression analysis, linear models and non-parametric statistics. Prerequisite, Mathematical Sciences 241. Three hours per week. Three semester hours.

050—271. COMPUTER PROGRAMMING I  DR. SHUCK
Computer programming with a high-level language. The computer as a tool for solving numerical and non-numerical problems. Emphasis on scientific programming. Prerequisite, Mathematical Sciences 111 or Mathematical Sciences 171. Three hours per week. Three semester hours.

050—272. COMPUTER PROGRAMMING II  DR. SHUCK
A continuation of Mathematical Sciences 271 with more advanced algorithms and programming techniques. Prerequisite, Mathematical Sciences 271. Three hours per week. Three semester hours.

050—311. INTRODUCTION TO ANALYSIS I  MR. BREMILLER
A theoretical treatment of the concepts of limits, continuity, indeterminate forms, sequences, series, definite integrals, multiple integrals. Includes an introduction to the topology of Euclidean space, uniform continuity and uniform convergence, power series and Taylor's theorem. Prerequisite, Mathematical Sciences 211. Three hours per week. Three semester hours.

050—312. INTRODUCTION TO ANALYSIS II  MR. BREMILLER
A continuation of Mathematical Sciences 311, with extensions to partial derivatives, differentials, chain rules, inverse and implicit function theorems, change of variables in multiple integrals, arc length, surface area, extremal properties of functions of several variables. Prerequisite, Mathematical Sciences 311. Three hours per week. Three semester hours.

050—321. INTRODUCTION TO TOPOLOGY  DR. HAGELGANS
Elementary point set topology; metric spaces; topological spaces, separation axioms, compactness, connectedness. Prerequisite, consent of the Instructor. Three hours per week. Three semester hours. (Not scheduled for 1982-1983).

050—322. FUNDAMENTALS OF GEOMETRY  STAFF
Axiomatic development, introduction to non-Euclidean geometry, projective geometry and modern geometry. Prerequisite, consent of the Instructor. Three hours per week. Three semester hours.

050—335. MODERN ALGEBRA I  DR. SHUCK
An introduction to algebraic structures, with emphasis in the first semester on groups. Subgroups, quotient groups, homomorphisms, isomorphism theorems, Cayley's theorem, permutation groups. Prerequisite, Linear Algebra. Three hours per week. Three semester hours.

050—336. MODERN ALGEBRA II  DR. SHUCK
A continuation of Mathematical Sciences 335. Rings, unique factorization domains, vector spaces, fields. Applications to Fermat's last theorem, constructions with straight-edge and compass, solution of equations by radicals. Classical origins of modern abstract algebra. Prerequisite, Mathematical Sciences 335. Three hours per week. Three semester hours.

* This course is not offered in 1981-1982.
050—341. **PROBABILITY**  
**DR. COLEMAN**
An introduction to probability theory; discrete and continuous probability distributions; moments and moment generating functions; functions of random variables. Prerequisite, Mathematical Sciences 211. Three hours per week. *Three semester hours.*

050—342. **MATHEMATICAL STATISTICS**  
**DR. COLEMAN**
The mathematical background of modern statistics, including the development of sampling distributions, the theory and application of estimation, tests of hypotheses, regression and correlation, and analysis of variance. Prerequisite, Mathematical Sciences 341. Three hours per week. *Three semester hours.*

*050—371. **DATA STRUCTURES AND ALGORITHMS**  
**DR. HAGELGANS**
Data structures used in computers, including strings, linear lists, linked lists, arrays and tree structures. Algorithms for sorting, searching and other manipulations of data. Prerequisite, Mathematical Sciences 171 or Mathematical Sciences 271. Three hours per week. *Three semester hours.*

050—372. **COMPUTER ORGANIZATION**  
**DR. HAGELGANS**
Architecture of a digital computer, number systems, arithmetic operations, codes, switching algebra and logic gates. Prerequisite, Mathematical Sciences 171 or Mathematical Sciences 271. Three hours per week. *Three semester hours.* (Not scheduled for 1982-1983).

*050—411. **FUNCTIONS OF A COMPLEX VARIABLE**  
**STAFF**
An introduction to the theory of analytic functions, integrals of complex functions, conformal mapping, harmonic functions. Taylor’s and Laurent’s series, residue theory, geometry of elementary functions. Prerequisite, Mathematical Sciences 211. Three hours per week. *Three semester hours.*

*050—434. **THEORY OF NUMBERS**  
**DR. SHUCK**
Divisibility; unique factorization; congruences; theorems of Fermat, Euler, and Wilson; primitive roots; quadratic reciprocity; Diophantine equations; Fermat’s conjecture; sums of squares; distribution of primes. Three hours per week. *Three semester hours.*

*050—451. **SEMINAR IN ADVANCED MATHEMATICS**  
**STAFF**
A course designed to acquaint the student with modern trends in advanced topics in mathematics and its applications. The course will be adapted to the students’ preferences and needs. Prerequisite, consent of the Instructor. Three hours per week. *Three semester hours.*

050—452. **SEMINAR IN ADVANCED MATHEMATICS**  
**DR. HAGELGANS**
A course designed to acquaint the student with modern trends in advanced topics in mathematics and its applications. The course will be adapted to the students’ preferences and needs. Prerequisite, consent of the Instructor. Three hours per week. *Three semester hours.* (Not scheduled for 1982-1983).

050—461. **MATHEMATICAL MODELS**  
**DR. JESSUP**
Mathematical methods are used to develop models for use in fields outside of Mathematics with emphasis on the social and biological sciences. Topics such as Digraphs, Graphs, Markov Chains and Game Theory will be studied. Prerequisite, Mathematical Sciences 212 and an ability to program. Three hours per week. *Three semester hours.* (Not scheduled for 1982-1983).

* This course is not offered in 1981-1982.
050-462. **NUMERICAL ANALYSIS**

Selected topics from Numerical Analysis are presented. These may include solving systems of linear equations, linear and nonlinear differential equations, numerical integration and differentiation, eigenvalue problems, error analysis, interpolation and approximation. The computer will be used. Prerequisites, Mathematical Sciences 212 and an ability to program. Three hours per week. *Three semester hours.* (Not scheduled for 1982-1983.)

050-464. **SEMINAR IN MATHEMATICAL ECONOMICS**

Topics in mathematics of particular importance in economics, with applications. Offered jointly by the Department of Mathematical Sciences and the Department of Economics and Business Administration. A research paper will be required. Prerequisites, Mathematical Sciences 211, Linear Algebra, and Economics and Business Administration 325, 326 (the latter may be taken concurrently). *Three semester hours.*

050-471. **TOPICS IN COMPUTING**

A detailed study of some advanced topics in computer science such as file and database management, operating systems, compiler design and formal languages. Prerequisite, Mathematical Sciences 271 or permission of the instructor. Three hours per week. *Three semester hours.* (Not scheduled for 1982-1983.)

050-472. **TOPICS IN COMPUTING**

A spring semester course which will cover topics similar to those listed in Mathematical Sciences 471. Prerequisites, Mathematical Sciences 271 or permission of the instructor. Three hours per week. *Three semester hours.*

050-491. **RESEARCH/INDEPENDENT WORK**

Independent investigation of an area of the mathematical sciences not covered in regular courses. Prerequisite, written consent of a member of the staff to serve as an advisor. *Three semester hours.*

050-492. **RESEARCH/INDEPENDENT WORK**

Content and prerequisites as in Mathematical Sciences 491. *Three semester hours.*

**055—MUSIC**

**MR. FRENCH**

The art of music holds a prominent place in the cultural heritage of Western civilization. It is of great value to the general student of the liberal arts and sciences to gain an acquaintance with and an understanding of this art, and it is the object of the academic offerings listed below to illuminate and reveal the role of music in the broad cultural and intellectual context of our civilization. The intimate relationships of music to general culture are most effectively discovered through the study of musical history, while the study of musical theory, in addition to training the student in the techniques of composition, is conducive to an intellectual rigor analogous to that imparted in the study of mathematics and logic. It is the purpose of the introductory courses to initiate this process of discovery in both dimensions and by stimulating a thoughtful perception of musical events, open to the students a significant resource for cultural self-enrichment.

**A. INTRODUCTORY COURSES**

055-203. **INTRODUCTION TO MUSIC I**

A course in perceptive listening intended to heighten the student's awareness, understanding, and hence, enjoyment of music through an examination of its basic elements—tone color, texture, rhythm, etc.—and how these function in the artistic context of musical compositions of the Romantic and Classical periods. Three hours per week. *Three semester hours.*

*This course is not offered in 1981-1982.*
**055—204. INTRODUCTION TO MUSIC II**

A continuation of Music 203 involving the compositions of the Medieval, Renaissance, Baroque periods as well as the Twentieth Century. Prerequisite: Music 203 or equivalent. Three hours per week. Three semester hours.

**B. INTERMEDIATE AND ADVANCED COURSES**

*055—215. MUSIC HISTORY I: MIDDLE AGES TO BAROQUE*

A survey of early Western musical history with emphasis on the relation of musical developments to the broader cultural and artistic context. Individual topics may be selected for closer examination. Prerequisite: Music 203 and/or 204 or equivalent, or by permission. Three hours per week. Three semester hours.

*055—216. MUSIC HISTORY II: PRE-CLASSICS TO THE TWENTIETH CENTURY*

A continuation of Music 215. In this more familiar part of music history, investigation of selected topics will play a larger part in the course structure than in Music 215. Prerequisite: Music 203 and/or 204 or equivalent, or by permission. Three hours per week. Three semester hours.

**055—301. HARMONY I**

A practical course in the theory and techniques of tonal harmony with consideration of the related disciplines of counterpoint, analysis, arranging, and composition. The objective is the acquisition, at an elementary level, of fluency with musical notation through written exercises. Prerequisite: one year of keyboard study or by permission. Three hours per week. Three semester hours.

**055—302. HARMONY II**

A continuation of Music 301. Prerequisite: Music 301 or equivalent. Three hours per week. Three semester hours.

**055—307 and 308. TOPICS IN THE HISTORY AND LITERATURE OF MUSIC**

A study of a specific period or genre of music such as Nineteenth Century Romanticism, Choral Literature, American opera, Baroque Oratorio, etc. Consideration will be given to related developments in other branches of cultural life such as the literary and visual arts, politics, religion, etc. The course will include presentations by experts in these disciplines. Prerequisite: Music 203 and/or 204 or equivalent, or by permission. Three hours per week. Three semester hours.

**055—403, 404. TUTORIAL**

Individual projects in theoretical or historical studies including composition, arranging, orchestration, and research carried out at an intermediate to advanced level. Prerequisite for theoretical studies: Music 302 or equivalent. Prerequisite for historical studies: an intermediate course in music history (Music 215, 216, 307, or 308) or equivalent. Students should consult with the instructor before registering for a tutorial, and they should be prepared to discuss in some detail the project they propose to undertake. In exceptional circumstances, prerequisites may be waived at the discretion of the Instructor. One hour per week. Two semester hours.

**C. PERFORMANCE ORGANIZATIONS**

Participation in performing groups can be a source of great personal and intellectual value if done in a sustained and thoughtful manner over a period of years. To insure this degree of thoughtfulness and academic integrity, each student applying for performance organization credit will be required, at the end of each semester for which credit is requested, to submit a written self-evaluation of accomplishment during the semester and to give evidence of independent investigation into the specific repertory performed. Arrangements for retroactive credit may be made on an individual basis with the instructor.

*This course is not offered in 1981-1982.*
COURSES OF INSTRUCTION

055—121, 122; 221, 222; 321, 322; 421, 422. URSINUS COLLEGE BAND
First, second, third, and fourth years respectively. Fall Semester, marching band; Spring Semester, concert band. Two hours per week. Credit of one semester hour to be given upon completion of four full semesters. Credit of one additional semester hour to be given upon completion of two full additional semesters.

055—125, 126; 225, 226; 325, 326; 425, 426. URSINUS COLLEGE CHOIR
First, second, third, and fourth years respectively. A large choral ensemble which performs Handel's Messiah in the Fall Semester and another major choral work or group of works in the Spring Semester. Two to three hours per week. Credit of one semester hour to be given upon completion of three full years.

055—127, 128; 227, 228; 327, 328; 427, 428. MEISTERSINGERS
First, second, third, and fourth years respectively. A smaller choral ensemble (approximately forty voices) with a repertory appropriate to that number of voices. Most of the ensemble's performances, including a tour, take place in the Spring Semester. One to three hours per week. Credit of one semester hour to be given upon completion of two full years. Credit of one additional semester hour to be given upon completion of one additional year.

OTHER ENSEMBLES
In addition to the organizations listed above, other musical groups flourish on an informal and voluntary basis. Currently active are I Madrigalisti and I Concertisti (specializing respectively in the vocal and instrumental chamber music of the Renaissance and Baroque) as well as an orchestral string ensemble, all under the direction of Dr. F. Donald Zucker, Professor of Political Science. There is also the Ursinus College Jazz Band under the direction of Mr. Kuszyk.

058—PENNSYLVANIA GERMAN STUDIES
PROFESSOR SNYDER
The purpose of Pennsylvania German Studies is to examine the origins and values of the Pennsylvania Germans (or Pennsylvania Dutch), their history, customs, arts and folklore. The aim is to increase awareness of cultural facets of the Pennsylvania Germans and to preserve dialect and folk cultural remains. Facilities of Myrin Library, Pennsylvania Folklife Society and Kutztown Folk Festival offer special opportunities for study and research.
Selections from these courses are offered during the Summer Session. Particulars may be found in the Summer School catalog.
A minor in Pennsylvania German Studies consists of Pennsylvania German Studies 201, 202 and 12 additional credits.

*058—201. PENNSYLVANIA GERMAN CULTURE
DR. PARSONS
A study of the history, language and culture of the Pennsylvania Germans, their influence on American life and contributions to the American scene in 17th & 18th centuries. Field trips among them, to events and museums; speakers and artists. A research paper or creative composition is required. Three hours per week and field trips. Three semester hours.

*058—202. PENNSYLVANIA GERMAN CULTURE
DR. PARSONS
Study of the history, language and culture of the Pennsylvania Germans in 19th & 20th centuries, the diaspora, and status of women among the Pennsylvania Germans. A research paper or creative composition is required. Three hours per week and field trips. Three semester hours.

* This course is not offered in 1981-1982.
Courses 201, 202 will be offered in 1982-1983.
*058—305.  PENNSYLVANIA GERMAN MUSIC  DR. PARSONS
Folk songs of German origin and from Pennsylvania. Formal music by composers of Pennsylvania German origin. Three hours per week. Three semester hours.

*058—306.  PENNSYLVANIA GERMAN ART  DR. PARSONS
Pattern, symbolism and content in Folk Art. Formal painters of Pennsylvania German origin. Three hours per week. Three semester hours.

058—307.  PENNSYLVANIA GERMAN FOLKLIFE  DR. PARSONS
Classroom study and field techniques related to the folklore, folklife and folk culture of the Pennsylvania Dutch country. Three hours per week and field trips. Three semester hours.

058—308.  PENNSYLVANIA GERMAN CRAFTS  DR. PARSONS
History and theory of eighteenth century occupational and domestic crafts of the Pennsylvania Germans. Three hours per week. Three semester hours.

*058—211.  PENNSYLVANISCH DEITSCH: THE DIALECT  DR. SNYDER
A study of the dialect language of the Pennsylvania Germans. Basics of the oral language and its written variations. Three hours per day. Three semester hours. Summer only.

*058—212.  PENNSYLVANISCH DEITSCH: THE DIALECT  DR. SNYDER
Continuation of Course 211. Three hours per day. Three semester hours. Summer only.

*058—313.  PENNSYLVANIA GERMAN PROSE AND POETRY  DR. SNYDER
Works of 19th and 20th century dialect authors, poets and playwrights. Uiversetzung ins Deitsch. Prerequisite: Course 211, 212, or German 203, 204, or evidence of competence in the dialect. Three hours per day. Three semester hours. Summer only. Study of Pennsylvanisch Deitsch will not fulfill the College general requirement of language for graduation.

058—421, 422, 423, 424, 425, 426, 427, 428.  SEMINARS  DR. PARSONS AND VISITING LECTURERS
Topics on the life, culture, customs and values of the Pennsylvania Germans. Individual topics supervised and directed by professors and specialists. Research and folk cultural interviews, panels or workshops. Topics for each summer to be announced by January 31 preceding. One semester hour each.

058—431, 432, 433, 434, 435, 436, 437, 438.  SEMINARS AT KUTZTOWN FOLK FESTIVAL  STAFF
Topics as described in Course 421, but in areas related to Folk Festival program. Introductions and practicum in specialized areas of the Folk Festival. Festival Week only. One semester hour each.

060—PHILOSOPHY AND RELIGION  PROFESSOR WILLIAMSON  MRS. YOUNG
ASSOCIATE PROFESSOR HARDMAN
The Department of Philosophy and Religion seeks to encourage the student's practical appreciation and facile use of the tools of philosophy, to cultivate his informed awareness and critical appraisal of philosophical perspectives, and to give him opportunity for a scholarly and appreciative study of historic as well as contemporary religious insights. In this manner the department strives to translate into the terms of today's academic interests the traditional roles both disciplines have played in liberal education.

* This course is not offered in 1981-1982.
THE OFFERINGS OF THE DEPARTMENT ARE OPEN TO ALL STUDENTS, BUT WILL BE OF SPECIAL INTEREST TO PRE-TEOLOGICAL STUDENTS, PROSPECTIVE TEACHERS IN THE FIELDS OF PHILOSOPHY, RELIGION AND ETHICS, AND ALL OF THOSE INTERESTED IN THE GENERAL HUMANITIES.

MAJORS MUST TAKE THIRTY-SIX HOURS OF WORK WITHIN THE DEPARTMENT INCLUDING PHILOSOPHY 101, 102, 105; RELIGION 201, 202; AND PHILOSOPHY 403, 404, WHICH ARE REQUIRED. EACH MAJOR IS ALSO ENCOURAGED TO EARN A MINOR IN ANOTHER FIELD OF STUDY, OR TO ELECT EIGHTEEN HOURS OF COURSEWORK IN AN AREA OF CONCENTRATION WHICH WILL BROADEN HIS OR HER SKILLS AND INTERESTS, E.G. LITERATURE, THE CLASSICS, THE ARTS, AND THE SOCIAL SCIENCES.


060—101. HISTORY OF ANCIENT AND MEDIEVAL PHILOSOPHY
DR. WILLIAMSON AND STAFF
A survey of the evolution of reflective thought in the Western World from Thales to Descartes. Course 101 is open to all students. Three hours per week. Three semester hours.

060—102. HISTORY OF MODERN PHILOSOPHY
DR. WILLIAMSON AND STAFF
A survey of developing reflective thought in the Western World, beginning with Descartes and including several representative modern philosophers. Course 102 is open to all students. Three hours per week. Three semester hours.

*060—103. GENERAL PROBLEMS OF PHILOSOPHY
DR. WILLIAMSON
A study designed to orient the student with reference to perennial problems of philosophical inquiry. Intensive use is made of primary sources. (Alternates with Course 109.) Three hours per week. Three semester hours.

060—104. CONTEMPORARY PHILOSOPHY
DR. WILLIAMSON
A study of late nineteenth century and twentieth century philosophers and trends in philosophic thought beginning with Nietzsche and Moore. Intensive use is made of primary sources. (Alternates with Course 108.) Three hours per week. Three semester hours.

060—105. INTRODUCTORY LOGIC
MRS. YOUNG
A study of the guiding principles involved in correct thinking: the function of language; definition; fallacious forms of reasoning as they receive expression in daily life; the nature of deductive argument forms; and an introduction to the use of symbols. Three hours per week. Three semester hours.

060—106. ADVANCED LOGIC
MRS. YOUNG
A study of symbolic logic with reference to truth functions, rules of inference, proof of validity, and quantification; inductive argument as a crucial component of inquiry in the natural sciences; a critical analysis of the presuppositions of scientific method. Three hours per week. Three semester hours.

*060—108. AESTHETICS
DR. WILLIAMSON
An examination of the canons of beauty and art to supply a background for evaluation of specific works of literature, painting, sculpture, music and architecture. (Alternates with Course 104.) Three hours per week. Three semester hours.

* This course is not offered in 1981-1982.
060—109. **ETHICS**  
DR. WILLIAMSON  
A study of the principles of moral judgment, with exposition and criticism of the more important theories concerning the basic distinction between right and wrong conduct; the various problems of theoretical and practical ethics. (Alternates with Course 103.) Three hours per week. *Three semester hours.*

060—110. **PHILOSOPHY OF RELIGION**  
DR. WILLIAMSON  
A philosophical analysis of religious beliefs with particular attention devoted to the validity of religious language and knowledge and the questions of the natures of God and man, of miracles, evil, morality and immortality. Three hours per week. *Three semester hours.*

060—201. **HISTORY AND ANTHROPOLOGY OF RELIGION: THE WESTERN SETTING**  
DR. HARDMAN  
A systematic examination of the phenomenology of religion, its personal, social, psychological and cultural manifestations in history with special attention to Judaism, Islam and Christianity. Three hours per week. *Three semester hours.*

060—202. **HISTORY AND ANTHROPOLOGY OF RELIGION: THE EASTERN SETTING**  
DR. HARDMAN  
A systematic examination of the phenomenology of religion, its personal, social, psychological and cultural manifestations in history with special attention to the Oriental religions. Three hours per week. *Three semester hours.*

060—203. **INTRODUCTION TO THE LITERATURE OF THE BIBLE: OLD TESTAMENT**  
DR. HARDMAN  
Foundations of the Judaeo-Christian tradition in the literature and thought of the Old Testament. Emphasis is placed both on the biblical materials themselves and on the varying methodologies of Old Testament interpretation. Three hours per week. *Three semester hours.*

060—204. **INTRODUCTION TO THE LITERATURE OF THE BIBLE: NEW TESTAMENT**  
DR. HARDMAN  
A study of the Judaistic background of the New Testament, the life and times of Jesus, the emerging Church, and relevant literature. Three hours per week. *Three semester hours.*

060—207. **HISTORY OF THE CHRISTIAN CHURCH**  
DR. HARDMAN  
A study of the development of the Christian church from the apostolic period to modern times, with a view to understanding the nature and extent of its contribution to society. (Alternates with course 209.) Three hours per week. *Three semester hours.*

*060—209. **LITERATURE AND RELIGIOUS IDEAS**  
DR. HARDMAN  
An analysis of the significant themes common to works of imaginative literature exploring the interrelation of religion and artistic creativity. Attention will be given to Camus, Eliot, Faulkner, Kazantzakis, Waugh, etc. (Alternates with course 207.) Three hours per week. *Three semester hours.*

*060—301. **EPISTEMOLOGY**  
STAFF  
A critical study of the theories of truth, belief, perception, understanding, and the important concepts involved in the characterization, analysis, and appraisals of classic and contemporary discussions of human knowledge. Three hours per week. *Three semester hours.*

*This course is not offered in 1981-1982.*
060-302. PHILOSOPHY OF SCIENCE

An examination of the nature of scientific method and scientific theory, with reference to presuppositions, inference, explanation, prediction, application and verification. Three hours per week. Three semester hours.

060-311. SEMINAR IN RELIGION

The directed study of a given topic in religion as it relates to the vital issues of our time. Prerequisite, Departmental permission. Three hours per week. Three semester hours.

060-311A (Topic for 1980-81)

060-311B Philosophy and Religion

060-311B Philosophy and Religion

060-311A (Topic for 1980-81)

DR. WILLIAMSON

SEMINAR IN RELIGION

The directed study of a given topic in religion as it relates to the vital issues of our time. Prerequisite, Departmental permission. Three hours per week. Three semester hours.

060-312A (Topic for 1980-81)

060-312B Calvin and Luther

060-312. SEMINAR IN RELIGION

The directed study of a given topic in religion as it relates to the vital issues of our time. Prerequisite, Departmental permission. Three hours per week. Three semester hours.

060-403. SENIOR SEMINAR: CURRENT ISSUES AND MOVEMENTS IN PHILOSOPHY

A study of contemporary thinkers and schools of thought in Philosophy, making use of lectures, discussions, research papers, etc. Open only to Philosophy and Religion majors except with Departmental permission. Three hours per week. Three semester hours.

060-404. SENIOR SEMINAR: CURRENT ISSUES AND MOVEMENTS IN RELIGION

A study of contemporary theological and institutional trends in Religion, making use of lectures, discussions, research papers, etc. Open only to Philosophy and Religion majors except with Departmental permission. Three hours per week. Three semester hours.

060-491. RESEARCH/INDEPENDENT WORK

This course is open to candidates for departmental honors and to other students with the permission of the department chairman. Three semester hours.

060-492. RESEARCH/INDEPENDENT WORK

A continuation of course 491. Prerequisite, course 491. Three semester hours.

065—PHYSICS

PROFESSOR SNYDER

ASSOCIATE PROFESSOR TAKATS

ASSISTANT PROFESSOR NAGY

MR. CHINN

The courses in Physics are designed to give the student an understanding of the logic and structure of Physics. Stress is laid upon methods of analysis and presentation of ideas. It is hoped in this way to make the student conversant with the methods of Physics, to develop in him the ability to study independently and to transmit his ideas to others.

Students majoring in Physics must take the following courses: Chemistry 111, 112; Mathematical Sciences 111, 112, 211, 212; Physics 111, 112, 203, 204, 207, 208, 207a, 208a, 315, 316, and at least six additional hours of credit in Physics. These courses comprise the Tier II Core Specialization in Physics.

* This course is not offered in 1981-1982.
Students anticipating graduate study in Physics should also take Mathematics 235, 311, 312 and Physics 310, 401, 404. These courses plus the Core Specialization comprise the Tier II Advanced Specialization in Physics.

Students majoring in Physics who are preparing to teach in secondary schools must take Chemistry 111, 112; Mathematics 111, 112, 211, 212; Physics 103, 104, 111, 112, 203, 204, 207, 208.

A minor concentration in Physics consists of Physics 111, 112 (either integrated or unintegrated), 204 and a minimum of nine credits at the 200, 300 or 400 level.

Students in the pre-engineering program take Chemistry 111, 112; Mathematics 111, 112, 211, 212, 271; Physics 111, 112, 204, 207, 208. Additional courses in Chemistry, Mathematics, and Physics are chosen in consultation with the pre-engineering advisor. The courses are determined by the particular field of engineering the student plans to enter.

065—101. INTRODUCTION TO PHYSICS  
STAFF  
A survey of classical physics with emphasis on the structure and intellectual development of physics as well as its application to everyday life. Concepts of motion, force, and energy. Prerequisite: knowledge of trigonometry. Two hours lecture and two hours laboratory per week. Three semester hours.

065—102. INTRODUCTION TO PHYSICS  
STAFF  
Continuation of Physics 101, following the development of physics to the twentieth century. Concepts of waves, light, electromagnetism, atomic and nuclear physics. Prerequisite: 065-101. Two hours lecture and two hours laboratory per week. Three semester hours.

A student may receive credit for only one of the two general physics sequences: Physics 101, 102 or Physics 111, 112.

*065—103. INTRODUCTION TO ASTRONOMY  
DR. NAGY  
A survey emphasizing the methods and discoveries of contemporary astronomy. Origin and evolution of the solar system, stars, stellar evolution, neutron stars, pulsars, black holes. Prerequisite: knowledge of trigonometry. Two hours lecture and two hours laboratory per week. Three semester hours.

*065—104. INTRODUCTION TO ASTRONOMY  
DR. NAGY  
Continuation of Physics 103. The Milky Way, galaxies, quasars, cosmology. Prerequisite: 065—103. Two hours lecture and two hours laboratory per week. Three semester hours.

065—111. GENERAL PHYSICS  
STAFF  
A study of elementary mechanics and thermodynamics utilizing the principles of calculus in the presentation and in exercises. Prerequisite: Mathematics 111, 112. Three hours of lecture and three hours of laboratory per week. Four semester hours.

065—112. GENERAL PHYSICS  
STAFF  
A continuation of 065—111. A study of waves, sound, electricity, magnetism, and light. Prerequisite: 065—111. Three hours of lecture and three hours of laboratory per week. Four semester hours.

065—111. (Int.) GENERAL PHYSICS  
STAFF  
This course covers the same topics as 065—111 with the presentation coordinated with Mathematics 111 (Int) which must be taken simultaneously. Three hours of lecture and three hours of laboratory per week. Four semester hours.

*This course is not offered in 1981-1982.
COURSES OF INSTRUCTION

065—112. (Int.)  GENERAL PHYSICS  
A continuation of 065—111 (Int.). This course covers the same topics as 065—112 with the presentation coordinated with Math 112 (Int.) which must be taken simultaneously. Prerequisite: 065—111 (Int.). Three hours of lecture and three hours of laboratory per week.  Four semester hours.

065—203.  MECHANICS I  
Vectors, statics, vector calculus, kinematics of a particle, dynamics of a particle, energy, harmonic motion, moving reference systems, central forces, special relativity. Prerequisites: Physics 111, 112; Mathematics 111, 112. Three hours lecture and three hours laboratory per week.  Four semester hours.

065—204.  ELECTRICITY AND MAGNETISM I  
Electrical forces, electric fields and potentials, capacitance, conductors, D-C circuits, magnetic fields, inductance, A-C circuits, electric and magnetic fields in matter. Prerequisites: Physics 111, 112; Mathematics 111, 112. Three hours lecture and three hours laboratory per week.  Four semester hours.

065—205.  WAVES  
Introduction to the general phenomena of wave motion. Oscillations, traveling waves, modulation, polarization, interference, diffraction, geometric optics. Prerequisite: Physics 111, 112. Three hours lecture and three hours laboratory per week.  Four semester hours.

065—207.  MODERN PHYSICS  
Classical waves and particles, wave-particle duality, elementary theory of the hydrogen atom, atomic spectra, and electron distribution. Prerequisites, Physics 111, 112, Mathematics 111, 112. Three hours per week.  Three semester hours.

065—207a.  LABORATORY IN MODERN PHYSICS  
Laboratory work (optional) for Course 207. Three hours per week.  One semester hour.

065—208.  MODERN PHYSICS  
A continuation of Course 207. Special relativity, elementary particle physics, nuclear physics. Prerequisite, Physics 207. Three hours per week.  Three semester hours.

065—208a.  LABORATORY IN MODERN PHYSICS  
Laboratory work (optional) for Course 208. Three hours per week.  One semester hour.

065—309.  ELECTRICITY AND MAGNETISM II  
Electric and magnetic fields and potentials, Laplace’s equation, dielectrics and magnetic materials, Maxwell’s equations, electromagnetic waves. Prerequisites: Physics 204; Mathematics 211, 212. (Alternates with 401.) Three hours per week.  Three semester hours.

065—310.  MECHANICS II  
Dynamics of a system of particles, mechanics of rigid bodies, general motion of a rigid body, Lagrange’s equations, Hamilton’s equations, theory of vibrations. Prerequisites: Physics 203, Mathematics 211, 212. Three hours per week.  Three semester hours. (Alternates with 404)

065—314.  ALTERNATING CURRENTS  
Capacitative and self-inductive circuits; mutual induction; the alternating-current circuit; alternating-current power and power factor; divided circuits; application of complex numbers; electromagnetic waves. Prerequisites, Physics 204 and Mathematics 211. Three hours per week.  Three semester hours.
065—315. **ELEMENTS OF MATHEMATICAL PHYSICS**  
**DR. NAGY**  
Introduction to selected concepts and techniques of theoretical physics. Complex numbers, matrices, eigenvalues, vector algebra, vector calculus, Fourier series, calculus of variations, gamma, beta and error functions. Prerequisites: Mathematics 211, 212; Physics 111, 112. Three hours per week. *Three semester hours.*

065—316. **ELEMENTS OF MATHEMATICAL PHYSICS**  
**DR. NAGY**  

065—317. **SEMINAR**  
**STAFF**  
Study and discussion of advanced topics or recent developments in physics. Among topics offered are Relativity and Astrophysics. Students must consult the Chairman of the Department before registering for this course. Three hours per week. *Three semester hours.*

065—318. **SEMINAR**  
**STAFF**  
Same description as Physics 317. Three hours per week. *Three semester hours.*

*065—401. **INTRODUCTORY QUANTUM MECHANICS**  
**DR. TAKATS**  
Eigenvalues and eigenfunctions; probability density, expectation values, and operators; the Schrödinger equation in one and three dimensions; the hydrogen atom; perturbation theory: identical particles, spin. The course is open to fourth-year chemistry, mathematics, and physics majors and to qualified third-year students having the consent of the instructor. (Alternates with 309) Three hours per week. *Three semester hours.*

*065—404. **THERMODYNAMICS**  
**DR. SNYDER**  
Primarily classical thermodynamics with a brief introduction to statistical aspects. Temperature, laws of thermodynamics, work, heat, energy, entropy, thermodynamic potentials, kinetic theory of dilute gases, equations of state. Prerequisites: Physics 111, 112, Mathematics 211, 212. Three hours per week. *Three semester hours.* (Alternates with 310)

065—411. **RESEARCH**  
**STAFF**  
Investigations, of experimental or theoretical nature, pursued independently by the student. The preparation of a summarizing report is required. To register for this course a student must have the consent of a member of the physics staff to serve as his adviser. *One semester hour.*

065—412. **RESEARCH**  
**STAFF**  
Continuation of Course 065—421. *One semester hours.*

065—421. **RESEARCH**  
**STAFF**  
Same as Course 065—411, but more extensive in scope. *Two semester hours.*

065—422. **RESEARCH**  
**STAFF**  
Continuation of Course 065—421. *Two semester hours.*

065—491. **RESEARCH/INDEPENDENT WORK**  
**STAFF**  
This course is open to candidates for departmental honors and to other students with the permission of the department chairman. *Three semester hours.*

065—492. **RESEARCH/INDEPENDENT WORK**  
**STAFF**  
A continuation of course 491. Prerequisite, course 491. *Three semester hours.*

*This course is not offered in 1981-1982.*
COURSES OF INSTRUCTION

070—POLITICAL SCIENCE

PROFESSOR E. H. MILLER
ASSISTANT PROFESSOR KANE
PROFESSOR PANCOAST
MR. THOMPSON
PROFESSOR ZUCKER
MR. KOC
MR. FEGELY

The objectives of the Department of Political Science with relation to the general student are:

(1) To help the student attain an appreciation of both the theory and the functioning of politics.
(2) To aid the student in developing the faculty of critical thinking.
(3) To familiarize the student with those values that sustain freedom.

The professional objectives are:

(1) To prepare students for graduate work in political science and the law.
(2) To prepare students for the examinations of the domestic civil service and the foreign service.

In addition to Political Science 101, 102, students majoring in Political Science must take courses 205, 206, 215, 216 and seven semester hours in elective Political Science courses, which must include at least one of the following: Political Science 207, 210, 317, 318, 319, 320 or 491; History 101, 102; History 213, 214; Economics 101, 102; Psychology 101 and Sociology 101.

Students whose mathematical aptitude in College Board scores is below 550 are required to take a mathematics refresher course in their freshman year; Mathematics 101 may be taken to satisfy this requirement.

A minor concentration in Political Science consists of a minimum of 17 credits in Political Science.

070—101. AMERICAN GOVERNMENT
MR. KOC, MR. THOMPSON, DR. ZUCKER
An analysis of the structure and functions of American national and state governments. Three hours per week. Three semester hours.

070—102. AMERICAN GOVERNMENT
MR. KOC, MR. THOMPSON, DR. ZUCKER
Continuation of Course 101. Three hours per week. Three semester hours.

070—203. AMERICAN LOCAL GOVERNMENT
DR. PANCOAST
The structure, policies, politics, and problems of local governmental institutions in the American federal system. Three hours per week. Three semester hours.

070—204. POLITICAL PARTIES
DR. PANCOAST
Both structural description and functional analysis of American political parties. The organization, work, leaders, and place of political parties in our democracy are considered at length. Three hours per week. Three semester hours.

070—205. COMPARATIVE GOVERNMENT
DR. MILLER
A detailed comparison of the Cabinet and Presidential systems, as exemplified by England, France and the United States. Three hours per week. Three semester hours.

070—206. COMPARATIVE GOVERNMENT
DR. MILLER
The study is extended to other representative governments, including Germany, the Soviet Union and the Scandinavian countries. Three hours per week. Three semester hours.
070—207. **POLITICAL THEORY**
DR. ZUCKER
Significant political ideals, forces and concepts from Plato to the present. Three hours per week. Three semester hours.

070—209. **PUBLIC ADMINISTRATION**
DR. KANE
A survey of the field of public administration, emphasizing administrative organization, fiscal management and personnel management. The administrative process is considered as a unit encompassing federal, state and local administration. Three hours per week. Three semester hours.

070—210. **AMERICAN POLITICAL THOUGHT**
DR. ZUCKER
Main currents in American political thought from the seventeenth century to the present. Three hours per week. Three semester hours.

070—211. **CONSTITUTIONAL LAW**
DR. PANCOAST
The role of the federal courts in the interpretation and enforcement of the Constitution through case study. The jurisdiction of the Supreme Court and its exercise of the power of judicial review of legislative and executive action. Powers of the Congress and the President; the division of power between nation and state; and the limitations on the exercise of state power resulting from the existence or exercise of congressional power. Three hours per week. Three semester hours.

070—212. **CONSTITUTIONAL LAW**
DR. PANCOAST
The study of the limitations on the power of government to restrict individual freedom. The effect of the Bill of Rights and the nationalization of the Fourteenth Amendment on freedom of speech and press, freedom of and from religion, procedure in criminal cases, and due process of law and equal protection of the law vs. the police power. Three hours per week. Three semester hours.

070—215. **METHODS OF POLITICAL ANALYSIS**
STAFF
An examination of the analytic processes in the development of concepts, hypotheses, and theories. Formulation of research problems related to basic methodologies. Three hours per week. Three semester hours.

070—216. **METHODS OF POLITICAL ANALYSIS**
STAFF
A continuation of Course 215. Prerequisite, Political Science 215. Three hours per week. Three semester hours.

070—222. **LAW AND SOCIETY**
DR. KANE
A study of the origins, objectives, and manifestations of law in the United States political system. The case method of analysis is used to identify the salient features of the major classes of law and to evaluate the judicial procedures and institutions by which law is applied in the United States. Three hours per week. Three semester hours.

070—311. **INTERNATIONAL RELATIONS**
STAFF
Major concepts, trends, and recurrent problems in the international system today. Foreign policy issues past and present are analyzed in a general problem-solving framework, with special emphasis on varying international perspectives. Three hours per week. Three semester hours.

070—312. **INTERNATIONAL RELATIONS**
STAFF
Continuation of course 311. Survey of major theories and research about international relations. Three hours per week. Three semester hours.

*070—313. **SEMINAR IN INTERNATIONAL LAW**
DR. MILLER
A course in the Law of Nations. Case studies are stressed. Two hours per week. Two semester hours.
070—314. SEMINAR IN INTERNATIONAL ORGANIZATIONS  DR. MILLER
The structure and functions of international organizations. Two hours per week. Two
semester hours.

070—317. SEMINAR IN AMERICAN GOVERNMENT  DR. ZUCKER
Selected topics in American Government. Preparation and discussion of research
papers. Open to third and fourth year students with permission of the instructor.
Two hours per week. Two semester hours.

070—318. SEMINAR IN AMERICAN GOVERNMENT  DR. ZUCKER
Selected topics in American Government. Preparation and discussion of research
papers. Open to third and fourth year students with permission of the instructor.
Two hours per week. Two semester hours.

070—319. SEMINAR IN POLITICS OF THE DEVELOPING WORLD  DR. MILLER
Selected topics concerning the politics of Asia, the Middle East, Africa and Latin
America. Preparation and discussion of research papers. Open to third- and fourth-
year students with permission of the instructor. Two hours per week. Two semester
hours.

070—320. SEMINAR IN POLITICS OF THE DEVELOPING WORLD  DR. MILLER
Selected topics concerning the politics of Asia, the Middle East, Africa and Latin
America. Preparation and discussion of research papers. Open to third- and fourth-
year students with permission of the instructor. Two hours per week. Two semester
hours.

070—440. INTERDISCIPLINARY SEMINAR IN AMERICAN PUBLIC POLICY  STAFF
Selected topics in American public policy. Preparation and discussion of research pa-
ters. Open to fourth-year students majoring in American Public Policy. (The same
course as 440 under Economics and Business Administration.) Three hours per week.
Three semester hours.

070—491. RESEARCH/INDEPENDENT WORK  STAFF
This course is open to candidates for departmental honors and to other students with
the permission of the department chairman. Three semester hours.

070—492. RESEARCH/INDEPENDENT WORK  STAFF
A continuation of course 491. Prerequisite, course 491. Three semester hours.

075—PSYCHOLOGY

ASSOCIATE PROFESSOR FAGO
ASSISTANT PROFESSOR MULVANNY
PROFESSOR FLETCHER
ASSISTANT PROFESSOR RIDEOUT
ASSISTANT PROFESSOR CHAMILSS

The objectives of the Department of Psychology for the student are:
1. To familiarize the student with the general methods of behavior research.
2. To familiarize the student with the various content areas of Psychology.
3. To develop an appreciation of the interplay of theory and research in Psychology.
4. To develop the ability for critical, analytic and independent thinking in the realm
of behavioral science.

A student meeting these objectives is prepared not only for graduate work in psychol-
ogy and the other behavioral sciences, but also for study in other areas and

* This course is not offered in 1981-1982.
professions as well as employment in a wide variety of industrial, business, and governmental positions.

In order to meet these objectives, the Psychology Department program is divided into four components: Major Core, Ancillary Courses, Major Concentration, Minors. These are explained individually below.

A. Major Core
This is required of all Psychology majors. It consists of a basic set of courses required of all majors, and four content areas from each of which the student must select one course.

2. Content Areas: each student must select one course from each content area.
   a. Experimental: Psychology 335, 336, 351, 352
   b. Developmental/Personality: Psychology 334, 417, 437, 438
   c. Social/Applied: Psychology 246, 315, 409, 440
   d. Research/Theory: Psychology 441, 442, 444
3. Two additional electives from among Departmental offerings.

B. Ancillary Courses
   Required of all majors.
1. Biology 101, 102 or 111, 112
2. Computer Science 171 or 271
3. Mathematics 241
4. Two courses from the following: Anthropology 201, 202, Sociology 201.

C. Major Concentration
This is not required but rather intended for the student who plans to pursue graduate study in Psychology or related fields.

1. Mathematics 242
2. Psychology 441 or 442 or 450 (beyond the course taken as part of the major core).
3. Three electives from departmental offerings at the 300-400 level.

D. Minor Concentrations
A minor concentration in General Psychology consists of Psychology 101 and 111, or 102 and 112; 210 or 409; one course in experimental psychology chosen from 335, 336, 351, or 352; one course in developmental/personality psychology chosen from 334, 417, 437 or 438; one course in social/applied psychology chosen from 246, 312, 409 or 410.

A minor concentration in Human Behavioral Development consists of Psychology 101 and 111, or 102 and 112; 223, 334, 417, 437.

A minor concentration in Neuroscience consists of Biology 317 and 318; Psychology 335 and 336; and either Psychology 441 or 442 (approved topic applicable to the Neurosciences), or Biology 451 or 452 (approved topic applicable to the Neurosciences), or Biology 442. Psychology 337 is recommended but not required.

075—101. INTRODUCTORY PSYCHOLOGY
   STAFF
A survey of the basic biological and environmental influences on the psychological processes. Emphasis will be on areas such as physiological correlates of behavior, the senses, and learning. Three hours per week. Three semester hours.
Psychology majors will take this course in conjunction with Psychology 111.
COURSES OF INSTRUCTION

075—102. INTRODUCTORY PSYCHOLOGY STAFF
This course surveys the more complex psychological and environmental determinants of individual behavior. Specific topics include the normal personality, abnormality, social behavior, work, and problems of scientific measurement. Three hours per week. Three semester hours.

Psychology majors will take this course in conjunction with Psychology 112.

075—111. INTRODUCTORY PSYCHOLOGY LABORATORY STAFF
Designed primarily for Psychology majors, the laboratory provides basic experience with the research methods and procedures utilized in the content areas covered in Psychology 101. Prerequisite, major in Psychology or permission of the instructor. Two hours per week. One semester hour.

075—112. INTRODUCTORY PSYCHOLOGY LABORATORY STAFF
Designed primarily for Psychology majors, the laboratory provides the basic experience with the research methods and procedures of the content areas covered in Psychology 102. Prerequisite, major in Psychology or permission of the instructor. Two hours per week. One semester hour.

075—108. MENTAL HEALTH AND ABNORMAL PSYCHOLOGY DR. FLETCHER
The problem of mental health is treated under the following topics: The dynamics of human behavior, normal and abnormal reactions to frustration and conflict. Psychological, organic and social causes of poor mental health. The roles played by the home, the school and society in mental health. Additional topics include psycho-neuroses and functional psychoses, epilepsy, drug addiction and alcoholism. Methods of prevention and treatment of mental illness are discussed. This course is given from the point of view of preventive mental hygiene. Prerequisite, Psychology 101 or 102. Three hours per week. Three semester hours.

075—210. EXPERIMENTAL PSYCHOLOGY DR. FAGO, DR. RIDEOUT
This course is designed to acquaint the student with laboratory techniques used in psychology. Lectures, demonstrations, individual experiments, and the preparation of scientific reports. Prerequisites, Psychology 101 or 102, Biology 101 or 111, Mathematics 241. Three hours lecture, two hours laboratory per week. Four semester hours.

075—223. EDUCATIONAL PSYCHOLOGY — LEARNING DR. FAGO
Contemporary learning theory for teachers. The course takes an information-processing approach to cognition, and includes such topics as concept formation, problem solving, memory, and attention. Educational applications will be stressed. (The same course as 223 under Education.) Prerequisite, Psychology 101 or 102. Three hours per week. Three semester hours.

075—224. EDUCATIONAL PSYCHOLOGY — GROWTH AND DEVELOPMENT STAFF
The nature and development of the psychological processes from the prenatal period through adolescence. (The same course as 224 under Education.) Prerequisite, Psychology 101 or 102. Three hours per week. Three semester hours.

*075—246. PSYCHOLOGY IN THE COMMUNITY STAFF
Applications of psychological theory, research methods, and empirical findings to community programs dealing with contemporary social problems, such as crime and delinquency, racial prejudice, mental illness, drug addiction, poverty and other forms of deprivation. Prerequisites, Psychology 101 or 102. Three hours per week. Three semester hours.

* This course is not offered in 1981-1982.
URSINUS COLLEGE BULLETIN

075-311. HISTORY AND THEORIES OF PSYCHOLOGY  STAFF
A study of the more important findings and theories contributing to the development of modern scientific psychology. Prerequisite, Psychology 101 or 102. Three hours per week. Three semester hours.

075-315. PSYCHOLOGY IN INDUSTRY  DR. FLETCHER
Applications of psychology to industry: employee and job ratings, aptitudes and skills, work methods, training programs, fatigue, safety, attitudes, morale, interviewing and counseling. Human relations problems are emphasized using the case method and role playing. (Alternates with 417.) Prerequisites, Psychology 102 or 102; Mathematics 241. Three hours per week. Three semester hours.

075-334. DEVELOPMENTAL PSYCHOLOGY  STAFF
The concepts, theories and experimental approaches used to account for the ontogeny of behavior will be reviewed. The primary emphasis will be on human development. Prerequisites, Psychology 101 or 102, and 210. Three hours per week. Three semester hours.

075-335. BEHAVIORAL NEUROSCIENCES  DR. RIDEOUT
A study of the structure and function of the vertebrate nervous system, particularly of the neural substrates of behavior. Topics include evolutionary, anatomical and physiological approaches to the nervous system and behavior. Special emphasis is placed on neural mechanisms in the psychology of sensation and motivation. May be taken in conjunction with Psychology 337. Prerequisites, Psychology 101 or 102, 210; Biology 101 or 111; or by permission of the instructor. Three hours per week. Three semester hours.

075-336. SENSATION AND PERCEPTION  DR. RIDEOUT
The nature of the fundamental sensory processes will be explored with emphasis on vision and audition. Theory and experiments bearing on significant perceptual phenomena will be surveyed from both physiological and behavioral viewpoints. Prerequisites, Psychology 101 or 102, Psychology 210. Three hours of lecture, two hours of laboratory per week. Four semester hours.

075-337. NEUROSCIENCES LABORATORY  DR. RIDEOUT
A study of nervous system structure and function using the basic anatomical, physiological, and behavioral methods of the neurosciences. Topics include gross and microscopic neuroanatomy, electrophysiological recording, techniques of stereotaxic surgery, and experimental interventions in the central nervous system. Corequisites, Psychology 335 and permission of the instructor. Two hours per week. One semester hour.

075-341. READINGS IN PSYCHOLOGY  STAFF
Individual study of one or more selected topics in the psychological literature, and preparation of an annotated bibliography or a detailed proposal for subsequent research. To register for this course, the student must have the consent of a member of the psychology staff to serve as his adviser. Prerequisite, Psychology 210. One semester hour.

075-342. READINGS IN PSYCHOLOGY  STAFF
Content and prerequisites as in Psychology 341, but offered in the spring term. One semester hour.
075—351. **LEARNING AND MOTIVATION**

A review of learning theory, past and contemporary. Emphasis will be on the basic processes of classical conditioning and instrumental learning, the phenomena associated with these processes, and the development of learning theory in response to experimentation. Lectures, individual experimentation and the preparation of scientific reports. Prerequisites, Psychology 101 or 102, and 210. Three hours lecture, two hours laboratory per week. *Four semester hours.*

075—352. **HUMAN LEARNING**

Traditional research on verbal learning will be reviewed, as well as contemporary research on topics including attention, memory, cognition, and psycholinguistics. Prerequisites, Psychology 101 or 102, and 210. Three hours per week, two hours laboratory per week. *Four semester hours.*

075—409. **EDUCATIONAL AND PSYCHOLOGICAL TESTS AND MEASUREMENTS**

An introductory survey of the field of measurement in psychology and education; main features of the techniques of testing and test construction; types of tests and scales; evaluation; interpretation; use. Prerequisites, Psychology 101 or 102; Mathematics 241. Two hours of lecture, two hours of laboratory per week. *Three semester hours.* (The same course as 409 under Education.)

*075—417. **DEVELOPMENTAL DEVIATIONS**

The effects on personality, social, and intellectual development of minimal brain dysfunction, learning disabilities, retardation, sensorimotor handicaps, and giftedness. Etiology, assessment, and remedial methods. Demonstrations and field trips. Prerequisites, Psychology 101 or 102, Psychology 334 or permission of the instructor. (Alternates with 315.) Three hours per week. *Three semester hours.*

075—437. **PERSONALITY**

A comprehensive survey of psychological theory and research dealing with the "normal" aspects of human nature. In addition to traditional "personality" perspectives, consideration is given to more recent alternatives, such as the behavioristic, factor-analytic, and "functional style" perspectives. Prerequisites, Psychology 101 or 102, 108, and 224 or 334. Three hours per week. *Three semester hours.*

075—438. **PSYCHOPATHOLOGY AND PSYCHOTHERAPY**

Clinical and experimental approaches to the understanding and treatment of psychosis, neurosis, and related conditions. Selected findings are studied intensively to illustrate the wide variety of contemporary viewpoints and techniques. Prerequisites, Psychology 101 or 102, 108, and 224 or 334. Three hours per week. *Three semester hours.*

075—440. **SOCIAL PSYCHOLOGY**

A study of group action and of the group influences by which the individual is surrounded; tradition, custom, public opinion and other psychological and social forces which affect individual judgment and action. Prerequisite, Psychology 101 or 102 and 223 or 351 or 352. Three hours per week. *Three semester hours.*

075—441. **RESEARCH**

Investigations of an experimental, clinical or theoretical nature pursued independently by the student. The preparation of a scientific report is required. To register for the course a student must have the consent of a member of the psychology staff to serve as his adviser. *Three semester hours.*

*This course is not offered in 1981-1982.*
075—442. RESEARCH
Content and prerequisites as in Psychology 441, but offered in the spring term. Students who have been admitted to the course and who have fulfilled its requirements may be awarded Departmental Honors, but no additional semester hours of credit, if they have qualified in other ways for admission to the honor program. Three semester hours.

075—444. SEMINAR IN PSYCHOLOGY
A seminar intended to familiarize the student with current trends and special topics in theoretical and applied psychology. Emphasis will be given to the preparation and presentation of papers on selected topics which will vary from year to year. Open to third and fourth year students majoring in psychology. Two hours per week. Two semester hours.

075—491. RESEARCH/INDEPENDENT WORK
This course is open to candidates for departmental honors and to other students with the permission of the department chairman. Three semester hours.

075—492. RESEARCH/INDEPENDENT WORK
A continuation of course 491. Prerequisite, course 492. Three semester hours.

ROMANCE LANGUAGES

ASSISTANT PROFESSOR LUCAS
ASSISTANT PROFESSOR ESPADAS
ASSISTANT PROFESSOR NOVACK

MR. RAPPOCCIO
MRS. HALL
DR. EATON
DR. SHUTE

The goals of the Department of Romance Languages are, for the beginning and intermediate student, the development of linguistic ability, an understanding of a foreign culture and an introduction to its literature. For the more advanced student, the goals are to perfect the use of the language through oral and written practice, to explore the society and civilization of a country and to develop faculties of critical and esthetic judgment through the study of its literature.

Students majoring in French or Spanish find it valuable to supplement the work done at Ursinus by spending a summer, a semester or an entire year in the foreign country which offers a program approved by the Department. It is recommended that students interested in international economics or political science fulfill the requirements for a minor in Business Administration, Economics or Political Science.

A minor concentration in Romance Languages consists of nine credits of French at the 300 or 400 level, excluding French 331, and nine credits of Spanish at the 300 or 400 level, excluding Spanish 332.

086—French
French majors are required to take at least thirty semester hours in French above the 200 level and must complete the equivalent of the College language requirement in another language. French 305, 306, 325, 326, 314, History 101, 102 and six semester hours of advanced History are required. It is recommended that students preparing for graduate study elect the following courses: English 203, 204, Latin 101, 102, 203, 204 and two 300 level courses in their second language. Students planning to teach must include French 428 in their program. In the senior year, majors must pass a comprehensive examination.

A minor concentration in French consists of French 305, 306, and twelve additional credits of French at the 300 or 400 level, excluding 331.
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<tr>
<th>Course Code</th>
<th>Title</th>
<th>Instructor</th>
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<tr>
<td>066-101</td>
<td>ELEMENTARY FRENCH</td>
<td>STAFF</td>
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<tr>
<td></td>
<td>An introduction to French language and grammar</td>
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<td>with particular emphasis on writing, speaking</td>
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<td>and comprehension. Three hours per week plus</td>
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<td>one hour of language laboratory per week.</td>
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<td>Three semester hours.</td>
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<tr>
<td>066-102</td>
<td>ELEMENTARY FRENCH</td>
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<td></td>
<td>Continuation of French 101. Three hours per</td>
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<td>week plus one hour of language laboratory per</td>
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<td>week. Three semester hours.</td>
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<tr>
<td>066-203</td>
<td>INTERMEDIATE FRENCH</td>
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<tr>
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<td>A review of grammar, conversation and vocabulary</td>
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<td>development, writings and discussions based on</td>
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<td>cultural, social and literary selections.</td>
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<td>Prerequisite: French 102 or equivalent. Four</td>
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<td>hours per week plus one hour of language</td>
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<td>laboratory per week. Three semester hours.</td>
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<td>066-204</td>
<td>INTERMEDIATE FRENCH</td>
<td>STAFF</td>
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<td>Continuation of French 203. Three hours per</td>
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<td>week plus one hour of language laboratory per</td>
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<td>week. Three semester hours.</td>
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<td>066-305</td>
<td>FRENCH LITERATURE FROM THE MIDDLE AGES TO THE</td>
<td>DR. NOVACK</td>
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<td>EIGHTEENTH CENTURY</td>
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<td>Major French writers and their contribution to</td>
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<td>world culture and civilization from the Middle</td>
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<td>Ages to the Revolution. Prerequisite: French 204</td>
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<td>or equivalent. Three hours per week. Three</td>
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<td>semester hours.</td>
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<td>066-306</td>
<td>FRENCH LITERATURE OF THE NINETEENTH AND</td>
<td>DR. NOVACK</td>
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<td>TWENTIETH CENTURIES</td>
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<td>Continuation of French 306. From 1789 to the</td>
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<td>present. Prerequisite: French 204 or</td>
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<td>equivalent. Three hours per week. Three</td>
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<td>066-313</td>
<td>FRENCH CIVILIZATION</td>
<td>DR. LUCAS</td>
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<td>This course investigates French culture and</td>
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<td>society from the Ancien Régime to de Gaulle's</td>
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<td>Republic. Readings will be selected from</td>
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<td>historical and literary documents. Prerequisite:</td>
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<td>French 315, 316 or permission of the instructor.</td>
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<td>Three hours per week. Three semester hours.</td>
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<td>066-314</td>
<td>FRANCE TODAY</td>
<td>MRS. HALL</td>
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<td>Contemporary France as seen in its current</td>
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<td>literature, art, philosophy, and politics.</td>
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<td>Prerequisite: French 315, 316 or permission of</td>
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<td>the instructor. Three hours per week. Three</td>
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<td>semester hours.</td>
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<td>066-315</td>
<td>CONVERSATION AND COMPOSITION</td>
<td>MRS. HALL</td>
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<td>Practice in oral elements of the language,</td>
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<td>written composition, and grammar. Topics</td>
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<td>relating to French culture and society will be</td>
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<td>emphasized. Prerequisite: French 204 or</td>
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<td>equivalent. Three hours per week. Three</td>
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<tr>
<td>066-316</td>
<td>CONVERSATION AND COMPOSITION</td>
<td>MRS. HALL</td>
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<tr>
<td></td>
<td>Continuation of French 315. Class discussions</td>
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<td>are based on cultural, social and literary</td>
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<td>texts, accompanied by oral and written</td>
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<td>presentations. Prerequisite: French 204 or</td>
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<td>066-325</td>
<td>ADVANCED CONVERSATION</td>
<td>MRS. HALL</td>
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<td>This course is designed for the perfection of</td>
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<td>previous conversation skills through</td>
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<td>discussions on a wide range of topics related to</td>
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<td>French life and contemporary society. Prerequisite:</td>
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<td>French 315, 316 or permission of the instructor.</td>
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<td>Three hours per week. Three semester hours.</td>
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* This course is not offered in 1981-1982.
086—326. **ADVANCED COMPOSITION**  
**MRS. HALL**
This course is designed for the development of advanced writing skills through class discussions and composition assignments based on contemporary French writings and issues. Prerequisite: French 315, 316 or permission of the instructor. Three hours per week. Three semester hours.

086—331. **FRENCH LITERATURE IN TRANSLATION**  
**STAFF**
A study of topics in French literature. Future topics: Paris, the study of a city; The comic tradition in French literature; French autobiographical writings; The French short story. Specific topics will be announced in advance. Not open to freshmen. Open to majors, but does not fulfill departmental requirements. Three hours per week. Three semester hours.

086—411. **NINETEENTH CENTURY FRENCH NOVEL**  
**DR. NOVACK**
The development of the French novel of the nineteenth century, with special emphasis on Benjamin Constant, Stendhal, Balzac, Flaubert, and Zola. Prerequisite: French 305, 306 or permission of the instructor. Three hours per week. Three semester hours.

086—412. **MODERN FRENCH POETRY**  
**DR. LUCAS**
An analysis and interpretation of the poetry of Baudelaire, Mallarmé, Verlaine, Rimbaud, Apollinaire, the Surrealists and the modern poets. Prerequisite: French 305, 306 or permission of the instructor. Three hours per week. Three semester hours.

*086—413. **TWENTIETH CENTURY FRENCH NOVEL**  
**DR. LUCAS**
Authors studied include Proust, Gide, Malraux, Sartre, Camus, and the writers of the new novel. Prerequisite: French 305, 306 or permission of the instructor. Three hours per week. Three semester hours.

086—419. **MEDIEVAL AND RENAISSANCE LITERATURE**  
**MRS. HALL**
A study in the epic and courtly novels of the Middle Ages until the philosophical essay of the Renaissance. Readings include works of Chretien de Troyes, Villon, the Pleiade, Rabelais and Montaigne. Prerequisite: French 305, 306 or permission of the instructor. Three hours per week. Three semester hours.

*086—420. **SEVENTEENTH AND EIGHTEENTH CENTURY PROSE**  
**DR. NOVACK**
The individual and society: discoveries about human nature, liberty, reason and their limits. Readings in Pascal, La Rochefoucauld, Voltaire, Diderot, Rousseau. Prerequisite: French 305, 306 or permission of the instructor. Three hours per week. Three semester hours.

*086—425. **FRENCH THEATER FROM THE MIDDLE AGES TO THE EIGHTEENTH CENTURY**  
**DR. NOVACK**
The development of the theater from its origins to the Revolution with special emphasis on the works of Corneille, Molière and Racine. Prerequisite: French 305, 306 or permission of the instructor. Three hours per week. Three semester hours.

*086—426. **FRENCH THEATER OF THE NINETEENTH AND TWENTIETH CENTURY**  
**DR. LUCAS**
Readings from the Romantic drama to the theater of the absurd. Some of the authors studied are Hugo, Musset, Jarry, Cocteau, Giraudoux, Camus, Beckett, Genet, and Duras. Prerequisite: French 305, 306 or permission of the instructor. Three hours per week. Three semester hours.

*This course is not offered in 1981-1982.*
*086—428. **ADVANCED GRAMMAR**
Phonetics, morphology and syntax with special emphasis on the problems related to the teaching of the language. Prerequisite: French 315, 316 or permission of the instructor. Three hours per week. *Three semester hours.*

086—451, 452. **ADVANCED SEMINAR IN FRENCH LITERATURE**
A study of topics in French literature. Future topics: Twentieth century women writers; The French new novel; Surrealism in France; The Self in French literature; Letters and memoirs. Specific topics will be determined according to interest and announced in advance. Prerequisite: one course in advanced French literature. Three hours per week. *Three semester hours.*

086—491. **RESEARCH/INDEPENDENT WORK**
This course is open to candidates for departmental honors and to other students with the permission of the department chairman. Prerequisite, a minimum of six semester hours of 300 or 400 level courses and the permission of the department chairman. *Three semester hours.*

086—492. **RESEARCH/INDEPENDENT WORK**
A continuation of course 491. Prerequisite, course 491 and permission of the department chairman. *Three semester hours.*

**088—Spanish**

Spanish majors are required to take at least thirty semester hours in Spanish beyond the 200 level and must complete the equivalent of the College language requirement in another language. Spanish 305, 306, 325, 326, 428, an advanced seminar in Hispanic literature, History 101, 102, and six semester hours of advanced History are required. It is recommended that students preparing for graduate study elect the following courses: English 203, 204, 214, 220, Latin 101, 102, 203, 204 and two 300 level courses in their second language. In the senior year, majors must pass a comprehensive examination.

A minor concentration in Spanish consists of Spanish 305, 306, and twelve additional credits of Spanish at the 300 or 400 level, excluding 332.

A minor concentration in Latin American Studies consists of Spanish 306, 332, one of the following: Spanish 343, 344, 451; History 317, 318; and Anthropology 211.

088—101. **ELEMENTARY SPANISH**
An introduction to Spanish language and grammar with particular emphasis on writing, speaking and comprehension. Three hours per week plus one hour of language laboratory per week. *Three semester hours.*

088—102. **ELEMENTARY SPANISH**
Continuation of Spanish 101. Three hours per week plus one hour of language laboratory. *Three semester hours.*

088—203. **INTERMEDIATE SPANISH**
A review of grammar, conversation and vocabulary development, writings and discussions based on cultural, social and literary selections. Prerequisite: Spanish 102 or equivalent. Three hours per week plus one hour of language laboratory per week. *Three semester hours.*

* This course is not offered in 1981-1982.
088—204. **INTERMEDIATE SPANISH**

Continuation of Spanish 203. Three hours per week plus one hour of language laboratory per week. *Three semester hours.*

*088—305. **SPANISH CIVILIZATION AND CULTURE**

A study of Spain from pre-roman to the present times. Spain's contribution to Western Civilization and its role in world affairs will be explored through its art, literature and thinkers. Prerequisite: Spanish 204 or equivalent. *Three hours per week. Three semester hours.*

*088—306. **LATIN AMERICAN CIVILIZATION AND CULTURE**

A study of Latin America from pre-colombian to the present times. Latin America's contribution to world civilization and its role in world affairs will be explored through its art, literature and thinkers. Prerequisite: Spanish 204 or equivalent. *Three hours per week. Three semester hours.*

088—315. **CONVERSATION AND COMPOSITION**

Practice in oral elements of the language, written composition, and grammar. Topics relating to Hispanic culture and society will be emphasized. Prerequisite: Spanish 204 or equivalent. *Three hours per week. Three semester hours.*

088—316. **CONVERSATION AND COMPOSITION**

Continuation of Spanish 315. *Three hours per week. Three semester hours.*

088—325. **ADVANCED CONVERSATION**

This course is designed for the perfection of conversational skills through discussion on a wide range of topics related to Hispanic life and contemporary society as presented in newspapers and magazine articles. Prerequisite, Spanish 315, 316 or permission of the instructor. *Three hours per week. Three semester hours.*

088—325. **ADVANCED COMPOSITION**

This course is designed for the development of advanced critical writing skills in Spanish through class discussion and composition assignments based on contemporary Spanish and Latin-American essays. Prerequisite, Spanish 315, 316 or permission of the instructor. *Three hours per week. Three semester hours.*

088—332. **LATIN AMERICAN STUDIES**

Open to majors, but does not fulfill departmental requirements. See under World Literature.

088—341. **SPANISH LITERATURE FROM THE MIDDLE AGES TO THE SEVENTEENTH CENTURY**

The study of the literature of Spain from the Middle Ages through the Golden Age. Special emphasis will be placed on the major works and genres. Prerequisite: Spanish 305 or 316 or permission of the instructor. *Three hours per week. Three semester hours.*

088—342. **SPANISH LITERATURE FROM 1700 TO THE PRESENT**

The study of the literature of Spain from the eighteenth century to the present with special emphasis on the literary movements of the nineteenth and twentieth centuries, the generation of '98 and the post-civil war literature. Prerequisite: Spanish 305 or 316 or permission of the instructor. *Three hours per week. Three semester hours.*

*This course is not offered in 1981-1982.*
COURSES OF INSTRUCTION

*088—343. LATIN-AMERICAN LITERATURE UNTIL THE TWENTIETH CENTURY MR. RAPPOCCIO
A study of Latin-American literature from pre-colombian times to Modernismo. Prerequisite: Spanish 306 or 316 or permission of the instructor. Three hours per week. Three semester hours.

088—344. TWENTIETH CENTURY LATIN-AMERICAN LITERATURE MR. RAPPOCCIO
A study of the poetry, drama and prose of the twentieth century with special emphasis on Dadaismo, Vanguardismo, Criollismo and the new novel. Prerequisite: Spanish 306 or 316 or permission of the instructor. Three hours per week. Three semester hours.

088—428. ADVANCED GRAMMAR DR. ESPADAS
Phonetics, morphology and syntax with special emphasis on the problems related to the teaching of the language. Prerequisite: Spanish 316 or permission of the instructor. Three hours per week. Three semester hours.

088—451, 452, 453. ADVANCED SEMINAR IN HISPANIC LITERATURE DR. ESPADAS
A study of topics in Hispanic literature such as Cervantes, The picaresque in Hispanic literature, Lyric poetry, The Spanish comedia, The new novel in Latin America. Specific topics will be determined according to interest and announced in advance. Prerequisite: Spanish 341, 342 or 343, 344 or permission of the instructor. Three hours per week. Three semester hours.

088—491. RESEARCH/INDEPENDENT WORK STAFF
This course is open to candidates for departmental honors and to other students with the permission of the department chairman. Prerequisite, a minimum of six semester hours of 300 or 400 level courses and the permission of the department chairman. Three semester hours.

088—492. RESEARCH/INDEPENDENT WORK STAFF
A continuation of course 491. Prerequisite, course 491 and permission of the department chairman. Three semester hours.

090—SOCIOMETRY
MR. GALLAGHER

Sociology is interested in the analysis of social life. It is the goal of the department of sociology to assist the student in developing insights into why the analysis of social life is considered to be important, what this approach can offer in terms of understanding people, and how it will help us to understand our own society.

The department of sociology offers courses leading to a minor in sociology. The requirements for the minor are a minimum of 15 semester hours in sociology. The minor must include at least two 200 level courses and one 400 level course.

090—101. INTRODUCTION TO SOCIOLOGY MR. GALLAGHER
This course is designed to introduce students to sociology as a discipline. It will emphasize the sociological view of human society, considering such issues as social behavior, social interaction, and the influence of groups. Topics to be discussed are society, culture, groups, social stratification, deviance, race relations, the family, education, religion, science, economics, and politics. This course is offered every semester. Three hours per week. Three semester hours.

*This course is not offered in 1981-1982.
090—212. DEVIANCE  
MR. GALLAGHER  
This course will analyze major categories of deviance—e.g., crime, juvenile delinquency, alcoholism, prostitution, and homosexuality. Deviance will be viewed as a product of the society in which it occurs. Questions to be considered are what constitutes deviant behavior in our own and in other societies, what forms of deviance are most likely in our own society, and how should deviance be treated in our own society. This course is offered in the spring semester of odd numbered years. Prerequisite, Sociology 101. Three hours per week. Three semester hours.

090—222. THE FAMILY  
MR. GALLAGHER  
A comparative study of the family in various societies provides a background for the analysis of the family in modern America. This course is offered in the spring semester of even numbered years. Prerequisites, Sociology 101. Three hours per week. Three semester hours.

090—231. THE SOCIOLOGY OF RELIGION  
MR. GALLAGHER  
In this course, religion will be analyzed as a social institution. The role of religion in reinforcing beliefs, in contributing to social stability, and in advocating change will be examined. Examples will be selected from the major religions of the world and the societies with which they have been associated. The course will emphasize the role of religion in American society. This course is offered in the fall semester of odd numbered years. Prerequisite, Sociology 101. Three hours per week. Three semester hours.

090—451. RESEARCH  
MR. GALLAGHER  
This course comprises directed reading and research on a specific sociological topic. Students wishing to register in this course must present to the advisor for this research a proposal outlining the research to be completed. The proposal must be approved by the advisor. At regular intervals during the semester, students must submit progress outlines, and meet with the advisor to discuss them. A final paper will be required. Prerequisites, Sociology 101 and two 200 level sociology courses. Three hours per week. Three semester hours.

090—461. SEMINAR IN SOCIOLOGY  
MR. GALLAGHER  
Seminars will deal with special topics in sociology. The topics may be either a concentrated look at a major sub-discipline within sociology (e.g., the sociology of education, social problems, or the changing role of women in American society), or the analysis of various theoretical perspectives. Prerequisite, Sociology 101 and one 200 level sociology course. Three hours per week. Three semester hours.

SPANISH  
See under Romance Languages

SPECIAL OFFERINGS  

College Scholar’s Program  
Guided independent study for qualified freshmen in their second term, sophomores and juniors. Each course is credited as three semester hours. (See “The Ursinus Plan” for details.)

201. LANGUAGES  
DR. NOVACK AND DIVISIONAL TUTORS

*This course is not offered in 1981-1982.
202. LANGUAGES
203. HUMANITIES
204. HUMANITIES
205. SOCIAL SCIENCES
206. SOCIAL SCIENCES
207. NATURAL AND PHYSICAL SCIENCES
208. NATURAL AND PHYSICAL SCIENCES

Departmental Honors

Guided independent study and research may be pursued by qualified seniors. A written thesis is required. Students wishing to take departmental honors must enroll in the following courses in the major department in which honors are sought:

491. RESEARCH/INDEPENDENT WORK  Three semester hours.
492. RESEARCH/INDEPENDENT WORK  Three semester hours.

Departments offering departmental honors include Biology, Chemistry, Classical Studies, Economics and Business Administration, English, German, Health and Physical Education, History, Mathematical Sciences, Philosophy and Religion, Physics, Political Science, Psychology, and Romance Languages. Limitations and prerequisites for courses 491 and 492 may be determined by the departments offering them. See The Ursinus Plan and listing of courses 491 and 492 in departmental offerings for details.

027—Intercollege Seminar

*027—202. SEMINAR ON CONTEMPORARY PROBLEMS

An elective course dealing with contemporary issues. The problems are analyzed from philosophical, sociological, psychological, and scientific viewpoints.

Seven class meetings of 90 minutes each. One class is held at each of the participating colleges. Coordinator is in charge.

Open to sophomores and juniors.

Students make own travel arrangements to and from participating colleges. One semester hour.

028—Senior Symposium

028—401. SENIOR SYMPOSIUM

The Senior Symposium is an elective course designed to encourage seniors from all departments to apply their accumulated knowledge to some of the major problems of the age. It is hoped that open discussion of current movements, ideas and values will help the students to move with a greater degree of confidence and usefulness in the world after graduation and will result in individual participation and involvement in the issues of their time. The Symposium, therefore, will deal with meanings and values as well as facts. Independent readings and periodic conferences with a tutor, with emphasis on the contemporary world. Open only to seniors. Three hours per week. Three semester hours.

* This course is not offered in 1981-1982.
029—Interdivisional Studies

029—402. INTERDIVISIONAL STUDIES—COMMUNITY AND CIVILIZATION STAFF
An interdisciplinary comparative studies program that examines the interdependence of values and institutions of the modern world. Students will be asked to discover the forces favoring continuity and change in values and institutions in an attempt to find the parameters of future developments. In addition to a weekly lecture, there will be tutorials, independent research and case studies in the form of disputations. Open to third and fourth year students. Three hours per week. Three semester hours.

030—World Literature

030—201. WESTERN LITERATURE STAFF
Critical reading of selected representative works from Western literature. Three hours per week. Three semester hours.

030—202. WESTERN LITERATURE STAFF
A continuation of World Literature 201. Prerequisite, Course 201. Three hours per week. Three semester hours.

030—203. CHINESE LITERATURE STAFF
Critical reading of selected representative works from Chinese literature in modern translations. Three hours per week. Three semester hours.

030—204. JAPANESE LITERATURE STAFF
A continuation of World Literature 203. Three hours per week. Three semester hours.

Although World Literature 201, 202 is offered every year, the sequence 203, 204 is offered only in alternate years. Student may elect both year courses for credit.

088—332. LATIN AMERICAN STUDIES STAFF
The historical, political, and socio-economic background of this increasingly important region is brought out in studies based on the works of its major writers, especially those still active on the contemporary scene. Given in English, using texts in translation. Three hours per week. Three semester hours.

COMBINED MAJORS

American Public Policy

Students majoring in American Public Policy must take the following core requirements: Political Science 101, 102, 211; 215 and 216 or Mathematics 241 (215); Economics and Business Administration 101, 102, 325, 326.

Students must choose one of two specializations. The following courses are required for the specialization in policy-formation process and its legal foundations: Political Science 203, 204, 209, 222. The following courses are required for the specialization in the development of American public policy and its foundation values: Political Science 210, 317, 318; Economics and Business Administration 435.

All public policy majors are required to take Interdisciplinary Seminar in American Public Policy, Political Science 440, or Economics and Business Administration 440, taught jointly by faculty members in both departments.
Applied Mathematics/Economics

Students majoring in Applied Mathematics/Economics must take the following Mathematics courses: 111, 112, 211 (231), 235, 241 (215), 171 (018-102) or 271 (018-111). They must also take the following Economics courses: 101, 102, 325, 326.

All majors must take Mathematics 464, Seminar in Mathematical Economics, offered jointly by the Departments of Mathematical Sciences and Economics and Business Administration.

The student must choose at least two advanced courses each from at least two of the following three areas: (A) Mathematics: 242 (216), 341, 342, 461 (431). (B) Any Computer Science courses numbered above 271 (018-111). (C) Economics: 315, 436.

Economics 101, 102 will not satisfy the Tier I social science requirement. Physics 111, 112, although not required for the major, may be elected to satisfy the Tier I science requirement. Advanced courses shown above that are not chosen to satisfy requirements are recommended as electives.

International Relations

Students majoring in International Relations must take the following core requirements: History 307, 308, and 315 or 316; Economics and Business Administration 101, 102, 408; Political Science 311, 312, 313, 314; Anthropology 101; Geography 102.

Students must select courses from two of the three following areas: History (six semester hours); Political Science (two courses); Economics (six semester hours). Selections in History must be from the following: 318, 322, 324, 326. Selections in Political Science must be from the following: 205, 206, 319, 320. Selections in Economics must be from the following: 328a, 328b, 434a.

Students are strongly urged to take a third year of a modern foreign language.
SUGGESTED FIRST-YEAR PROGRAMS

Academic advisers help students decide what courses to take each year to satisfy course requirements within each of the TIERs. Shown below are typical course selections of freshmen in the major programs.

**BIOLOGY (B.S.)**

*First Year (Plan CMB)*

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<td>Language 101, 102 or 203, 204</td>
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<td>II</td>
<td>Biology 111, 112</td>
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<td>Chemistry 111, 112</td>
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<td>Mathematical Sciences 111, 112</td>
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<td>II</td>
<td>Chemistry 111, 112</td>
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<td>Physics 111, 112 (INT.)</td>
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<td>Mathematical Sciences 111, 112 (INT.)</td>
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**CHEMISTRY (B.S.)**

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<td>Physics 111, 112 (INT.)</td>
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**CLASSICAL STUDIES (B.A.)**

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<td>Latin 101, 102 or 203, 204 or 304, 305</td>
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**ECONOMICS AND BUSINESS ADMINISTRATION (B.A.)**

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<td>Foreign Language</td>
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<td>Mathematical Sciences 101, 102 or 111</td>
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<td>Economics and Business Administration 101, 102</td>
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**ENGLISH (B.A.)**

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122
### GERMAN (B.A.)

**TIER I**  
English Composition 101, 102  
History 101, 102  
Science  
Physical Education 110  
Physical Education Activities  
Coursed  

**TIER II**  
German 101, 102 or 203, 204 or  
305, 306  
Other Language 101, 102 or  
203, 204  

**TIER III**  
0  

**TIER IV**  
0  

**32**

### HEALTH AND PHYSICAL EDUCATION (B.S.)

**TIER I**  
English Composition 101, 102  
Foreign Language  
Humanities  
Physical Education 110  
Physical Education Activities  

**TIER II**  
Physical Education 131, 132  
Physical Education Activities  

**TIER III**  
0  

**TIER IV**  
0  

**34**

### HISTORY (B.A.)

**TIER I**  
English Composition 101, 102  
Science  
Foreign Language  
Political Science 101, 102  
Physical Education  
Physical Education Activities  
Coursed  

**TIER II**  
History 101, 102  

**TIER III**  
0  

**TIER IV**  
0  

**32**

### MATHEMATICAL SCIENCES (B.S.)

**TIER I**  
English Composition 101, 102  
Foreign Language 101, 102 or 203, 204  
Humanities  
Physical Education 110  
Physical Education Activities  
Coursed  

**TIER II**  
Mathematical Sciences 111, 112 (INT.)  
Physics 111, 112 (INT.)  

**TIER III**  
0  

**TIER IV**  
0  

**34**

### PHILOSOPHY AND RELIGION (B.A.)

**TIER I**  
English Composition 101, 102  
Foreign Language  
Science  
Social Science  
Physical Education 110  
Physical Education Activities  
Coursed  

**TIER II**  
Philosophy 101, 102  

**TIER III**  
0  

**TIER IV**  
0  

**34**

### PHYSICS (B.S.) AND PRE-ENGINEERING

**TIER I**  
English Composition 101, 102  
Foreign Language  
Physical Education 110  
Physical Education Activities  
Coursed  

**TIER II**  
Chemistry 111, 112  
Mathematical Sciences 111, 112 (INT.)  
Physics 111, 112 (INT.)  

**TIER III**  
0  

**TIER IV**  
0  

**36**
POLITICAL SCIENCE (B.A.)

TIER I
English Composition 101, 102 ........ 6
History 101, 102 ....................... 6
Science .................................. 6
Foreign Language ....................... 6
Physical Education 110 ............... ½
Physical Education Activities
   Courses ................................ 1½
TIER II
Political Science 101, 102 ............ 6
TIER III
TIER IV

32

PSYCHOLOGY (B.S.)

TIER I
English Composition 101, 102 ........ 6
Foreign Language ....................... 6
Mathematical Sciences 101, 102 or
   171, 241 ................................ 6
Biology 101, 102 ........................ 6
Physical Education 110 ................ ½
Physical Education Activities
   Courses ................................ 1½
TIER II
Psychology 101, 102, 111, 112 ....... 8
TIER III
TIER IV

34

ROMANCE LANGUAGES

FRENCH (B.A.)

TIER I
English Composition 101, 102 ........ 6
History 101, 102 ....................... 6
Science .................................. 6
Physical Education 110 ................ ½
Physical Education Activities
   Courses ................................ 1½
TIER II
French 203, 204 or higher ............ 6
Foreign Language ....................... 6
TIER III
TIER IV

32

SPANISH (B.A.)

TIER I
English Composition 101, 102 ........ 6
History 101, 102 ....................... 6
Science .................................. 6
Physical Education 110 ................ ½
Physical Education Activities
   Courses ................................ 1½
TIER II
Spanish 203, 204 or higher ............ 6
Foreign Language ....................... 6
TIER III
TIER IV

32

SCIENCES AND MATHEMATICAL SCIENCES (B.S.)

PREPARATION FOR SECONDARY SCHOOL TEACHING IN THE SCIENCES AND MATHEMATICAL SCIENCES

I. CONCENTRATION IN BIOLOGY
First Year (Plan CMB)

TIER I
English Composition 101, 102 ........ 6
Language 101, 102 or 203, 204 ....... 6
Physical Education 110 ................ ½
Physical Education Activities
   Courses ................................ (optional) 1½
TIER II
Biology 111, 112 ......................... 8
Chemistry 111, 112 ...................... 8
Mathematical Sciences 111, 112 ....... 6
TIER III
TIER IV

36

First Year (Plan CMP)

TIER I
English Composition 101, 102 ........ 6
Language 101, 102 or 203, 204 ....... 6
Physical Education 110 ................ ½
Physical Education Activities
   Courses ................................ (optional) 1½
TIER II
Chemistry 111, 112 ...................... 8
Physics 111, 112 (INT.) ................ 8
Mathematical Sciences 111, 112 (INT.) 6
TIER III
TIER IV

36
II. CONCENTRATION IN CHEMISTRY

TIER I
English Composition 101, 102 ....... 6
Language 101, 102 or 203, 204 ....... 6
Physical Education 110 ............. ½
Physical Education Activities
Courses ................ (optional) 1½

TIER II
Chemistry 111, 112 ............. 8
Physics 111, 112 (INT.) ........... 8
Mathematical Sciences 111, 112 (INT.) 6
TIER III 0
TIER IV 0

36

III. CONCENTRATION IN MATHEMATICAL SCIENCES

TIER I
English Composition 101, 102 ....... 6
Foreign Language 101, 102 or
203, 204 .................. 6
Humanities or Social Sciences .... 6
Physical Education 110 ........... ½
Physical Education Activities
Courses ................ (optional) 1½

TIER II
Mathematical Sciences 111, 112 (INT.) 6
Physics 111, 112 (INT.) ........... 8
TIER III 0
TIER IV 0

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IV. CONCENTRATION IN MATHEMATICAL SCIENCES—PHYSICS

TIER I
English Composition 101, 102 ....... 6
Foreign Language 101, 102 or
203, 204 .................. 6
Humanities or Social Sciences .... 6
Physical Education 110 ........... ½
Physical Education Activities
Courses ................ (optional) 1½

TIER II
Physics 111, 112 (INT.) ........... 8
Mathematical Sciences 111, 112 (INT.) 6
TIER III 0
TIER IV 0

34

V. CONCENTRATION IN PHYSICS

TIER I
English Composition 101, 102 ....... 6
Language 101, 102 or 203, 204 ....... 6
Humanities or Social Sciences .... 6
Physical Education 110 ........... ½
Physical Education Activities
Courses ................ (optional) 1½

TIER II
Physics 111, 112 (INT.) ........... 8
Mathematical Sciences 111, 112 (INT.) 6
TIER III 0
TIER IV 0

34

The Suggested Programs for the first year in each discipline are presented above. Courses of study for other years should be prepared in consultation with one’s advisor to fulfill the requirements of the Ursinus Plan. Courses in TIER IV should generally be postponed until the senior year.
# DIRECTORY

## BOARD OF DIRECTORS

<table>
<thead>
<tr>
<th>Name</th>
<th>First Elected</th>
<th>Term Expires</th>
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<tbody>
<tr>
<td>ROBERT B. ANDERSON, B.S., M.S., Dallas, Texas</td>
<td>1972</td>
<td>1982</td>
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<tr>
<td>LILLIAN ISENBERG BAHNEY, B.A., Myerstown</td>
<td>1951</td>
<td>1981</td>
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<tr>
<td>JAMES H. BAIRD, B.S., M.S., Sc.D., Wilmington, Delaware</td>
<td>1979</td>
<td>1984</td>
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<tr>
<td>RUSSELL C. BALL, JR., B.S., LL.D., Paoli</td>
<td>1968</td>
<td>1983</td>
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<td>JOSEPH T. BEARDWOOD, III, B.S., Glenside</td>
<td>1968***</td>
<td>1984</td>
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<tr>
<td>PHILIP L. CORSON, B.A., LL.D., Plymouth Meeting</td>
<td>1960</td>
<td>1985</td>
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<tr>
<td>JAMES G. CROUSE, B.S., M.S., Royersford</td>
<td>1980</td>
<td>1985</td>
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<tr>
<td>THOMAS G. DAVIS, B.S., M.D., Philadelphia</td>
<td>1980</td>
<td>1985</td>
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<tr>
<td>WILLIAM ELLIOTT, LL.D., Collegeville</td>
<td>1964</td>
<td>1984</td>
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<tr>
<td>THOMAS P. GLASSMOYER, B.A., LL.B., LL.D., Willow Grove</td>
<td>1956**</td>
<td>1982</td>
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<tr>
<td>NORMA YOUNG HARBERGER, B.A., Abington</td>
<td>1975</td>
<td>1985</td>
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<td>DONALD L. HELFFERICH, B.A., J.D., LL.D., Pottstown</td>
<td>1927</td>
<td>1982</td>
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<tr>
<td>ALEXANDER LEWIS, JR., B.S., M.S., Ph.D., Sc.D., Pittsburgh</td>
<td>1972</td>
<td>1982</td>
</tr>
</tbody>
</table>

* Did not serve 1968-1969
** Did not serve 1966-1967
*** Did not serve 1978-1979
****Did not serve 1979-1980
ELLWOOD S. PAISLEY, B.S., LL.D., Philadelphia 1959 1984
HENRY W. PFEIFFER, B.S., M. S., Chatham, N.J. 1978 1983
CARL A. POSSE, Norristown 1979 1984
WILLIAM R. ROBBINS, B.S., West Hartford, Conn. 1971 1981
CHARLES V. ROBERTS, B.S., Drexel Hill 1956 1981
DAVID M. SCHMID, B.S., Norristown 1971 1981
THEODORE R. SCHWALM, LL.D., Columbia 1963 1983
E. EUGENE SHELLEY, B.S., LL.B., York 1971 1981
MARILYN L. STEINBRIGHT, B.S., Norristown 1975 1985
ELIOT STELLAR, A.B., M.Sc., Ph.D., Philadelphia 1979 1984
ROY WENHOLD, B.S., M.D., Abington 1968 1983

Life Members
CHARLES LACHMAN, LL.D., Wayne 1949 1969
D. STERLING LIGHT, B.A., Norristown 1947 1977
*CLARENCE A. WARDEN, JR., LL.D., Havertford 1957 1977
JOSEPH C. WILKINSON, Philadelphia 1973 1980

*Deceased December 23, 1980.
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WILLIAM S. FRIEDEBORN, B.A., Manager of the Book Store
MRS. BERT C. LAYNE, Assistant to the Office of the Dean of Women

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THE FACULTY 1980-1981*

RICHARD PAUL RICHTER, M.A., LL.D., President, Assistant Professor of English
B.A., Ursinus College; M.A., University of Pennsylvania; LL.D., Ursinus College.

DONALD LAWRENCE HELFFERICH, J.D., LL.D., Chancellor
B.A., Ursinus College; J.D., Yale University School of Law; LL.D., Ursinus College, Temple University, Dickinson School of Law.

WILLIAM SCHUYLER PETTIT, M.S., Sc.D., President, Emeritus; Professor of Chemistry, Emeritus
B.S. in Chemistry; M.S., University of Pennsylvania; Sc.D., Ursinus College.

**ELIZABETH BRETT WHITE, Ph.D., Professor of History, Emeritus
B.A., Cornell University; M.A., University of Wisconsin, Ph.D., Clark University.

FRANK LEROY MANNING, Ph.D., Professor of Mathematics, Emeritus
B.S., Cornell University; M.S., Rutgers University; Ph.D., Cornell University.

WILLIAM JOHN PHILLIPS, Ph.D., Professor of English, Emeritus
B.A., M.A., Ph.D., University of Pennsylvania.

ELEANOR FROST SNELL, M.A., Sc.D., Professor of Physical Education, Emeritus
B.A., University of Nebraska; M.A., Columbia University; Sc.D., Ursinus College.

LEVIE VAN DAM, Ph.D., Professor of Biology, Emeritus
B.S., M.S., Ph.D., Groningen State University, The Netherlands

DONALD GAY BAKER, Ph.D., Professor of Greek, Emeritus
B.A., Haverford College; M.A., Ph.D., Harvard University.

WILLIAM FRANKLIN PHILIP, Mus. Doc., Professor of Music, Emeritus

EVERETT VERNON LEWIS, Ph.D., Professor of Mathematics, Emeritus
B.S., Ph.D., Massachusetts Institute of Technology.

ALLAN LAKE RICE, Ph.D., R.N.O., Professor of German, Emeritus
B.A., M.A., Ph.D., University of Pennsylvania

EVERETT MARTIN BAILEY, M.A., Sc.D., Professor of Health and Physical Education, Emeritus
B.P.E., B.S., Springfield College; M.A., Columbia University; Sc.D., Ursinus College.

*Listed in order of appointment to present rank; appointments of the same year are listed alphabetically.

**Deceased January 3, 1981.
FOSTER LEROY DENNIS, Ph.D., Professor of Mathematics, Emeritus
B.S., Ursinus College; M.A., Cornell University; Ph.D., University of Illinois.

CALVIN DANIEL YOST, JR., Ph.D., Litt.D., Professor of English, Emeritus
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ALBERT LESTER REINER, Ph.D., Professor of Romance Languages, Emeritus
A.B., M.A., Ph.D., Harvard University.

EUGENE HERBERT MILLER, Ph.D., LL.D., Professor of Political Science
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GARFIELD SIEBER PANCOAST, Ph.D., Professor of Political Science
B.S., Ursinus College; M.A., Ph.D., University of Pennsylvania.

RICHARD MUMMA FLETCHER, Ph.D., Professor of Psychology
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B.S., Ursinus College; M.S., Ph.D., University of Pennsylvania.

GEORGE GILBERT STOREY, Ph.D., N. E. McClure Professor of English
B.A., Geneva College; M.A., Duke University; M.A., Ph.D., Harvard University.

EVAN SAMUEL SNYDER, Ph.D., Professor of Physics
B.S., Ursinus College; M.S., Ph.D., University of Pennsylvania.

WILLIAM BEDFORD WILLIAMSON, Ed.D., D.D., Professor of Philosophy
B.S., S.T.B., Ed.D., Temple University; S.T.M., Lutheran Theological Seminary; M.A., Lehigh University; D.D., National University.

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B.A., M.A., Pennsylvania State University.

*ALBERT CURTIS ALLEN, JR., Ph.D., Associate Professor of Biology
B.A., College of Wooster; M.A., Ph.D., University of Michigan.

RONALD EUGENE HESS, Ph.D., Associate Professor of Chemistry
B.S., Lock Haven State College; Ph.D., Cornell University.

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B.A., Grinnell College; Ph.D., Vanderbilt University.

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GAYLE ARMISTEAD BYERLY, Ph.D., Associate Professor of English
A. B., Goucher College; M.A., Ph.D., University of Pennsylvania.

PETER GORDON JESSUP, Ph.D., Associate Professor of Mathematics
A.B., Kenyon College; M.S., Ph.D., Lehigh University.

RICHARD JACOB WHATLEY, M.S., Associate Dean of Students; Associate Professor of Health and Physical Education; Assistant Director of Athletics
B.S., University of Maine; M.S., Springfield College.

JANE ANN BARTH, M.A., Associate Professor of Chemistry
B.A., Mount Holyoke College; M.A., Smith College.

RICHARD STUART BREMILLER, M.A., Associate Professor of Mathematics
B.S., United States Merchant Marine Academy; M.S., Drexel Institute of Technology; M.A., University of Delaware.

*LOUIS AUBREY DE CATUR, Ph.D., Associate Professor of English
A.B., M.A., Ph.D., University of Maryland.

KEITH JORDAN HARDMAN, Ph.D., Associate Professor of Philosophy and Religion
B.A., Haverford College; B.D., Princeton Theological Seminary; M.A. Columbia University; Ph.D., University of Pennsylvania.

JOHN MOORE WICKERSHAM, Ph.D., Associate Professor of Classics

ADELE PACK BOYD, M.Ed., Associate Professor of Health and Physical Education
B.S., Ursinus College; M.Ed., Temple University.

JOYCE ELIZABETH HENRY, Ph.D., Associate Professor of English
B.A., University of Michigan; M.A., Ph.D., University of Wisconsin.

PETER FORREST SMALL, Ph.D., Associate Professor of Biology
B.S., Austin Peay State University; M.S., East Tennessee State University; Ph.D., Miami University.

MARTHA CARROLL TAKATS, Ph.D., Associate Professor of Physics
B.A., Wellesley College; M.S., University of Wisconsin; Ph.D., University of Pennsylvania

MARGARET BROWN STAIGER, B.A., Reference and Acquisitions Librarian
B.A., Ursinus College.

HUGHAN CONRAD MEYER, JR., M.A., Assistant Professor of Economics
B.A., Ursinus College; M.A., University of Pennsylvania.

ROBERT RAND DAVIDSON, M.S., Director of Athletics; Assistant Professor of Health and Physical Education
B.S., Northeastern University; M.S., Springfield College.

PETER FLINT PERRETEN, Ph.D., Assistant Professor of English
B.A., Moorhead State College; M.A., Idaho State University; Ph.D., University of Delaware.

ROBIN ADAM CLOUSER, Ph.D., Assistant Professor of German
B.A., Ursinus College; A.M., University of Pennsylvania; Ph.D., University of Kansas.

HARRY ELVIN BROADBENT, III, M.S.L.S., Library Director
B.A., Ursinus College; M.A., Villanova University; M.S.L.S., Drexel University.

LAWRENCE DENNIS KARAS, M.Ed., Assistant Professor of Health and Physical Education
B.S., Ithaca College; M.Ed., West Chester State College.

DANUTA SWIECICKA LLOYD, Ph.D., Assistant Professor of German
B.A., Temple University; M.A., Ph.D., University of Pennsylvania.

JANE PERRETEN SHINEHOUSE, P.T., Assistant Professor of Biology
B.S., Ursinus College; P.T., University of Pennsylvania.

*PATRICK JOSEPH MULVANNY, Ph.D., Assistant Professor of Psychology
B.S., Georgetown University; Ph.D., Brown University.

JOHN WINFIELD SHUCK, Ph.D., Assistant Professor of Mathematics
B.S., Massachusetts Institute of Technology; M.S., Tufts University; Ph.D., Northeastern University.

ANNETTE VOCK LUCAS, Ph.D., Assistant Professor of French
B.A., George Washington University; M.A., New York University; Ph.D., Bryn Mawr College.

JAMES HOUGHTON KANE, J.D., Assistant Professor of Political Science
B.A., Houghton College; M.A., University of Pennsylvania; J.D., Temple University

MARY BLAIR FIELDS, Ph.D., Assistant Professor of Biology
B.A., Otterbein College; M.S., Ph.D., Miami University.

DAVID GEORGE PHILLIPS, Ph.D., Assistant Professor of Biology
B.S., The Pennsylvania State University; M.S., Ph.D., University of New Hampshire.

NANCY LINEKEN HAGELGANS, Ph.D., Assistant Professor of Mathematics
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ROY HELVERSON DUNGAN, Ed.D., Assistant Professor of Education
B.S., Millersville State College; Ed.M. and Ed.D., Temple University.

JUAN ESPADAS, Ph.D., Assistant Professor in Romance Languages
B.A., M.A., University of Illinois; Ph.D., University of Pennsylvania.

STEWART ROSS DOUGHTY, Ph.D., Assistant Professor in History
B.A., Ursinus College; M.A., Ph.D., Harvard University.

CATHARINE ANNE CHAMBLISS, Ph.D., Assistant Professor of Psychology
B.A., Yale University; M.S. and Ph.D., University of Miami.

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B.S. and M.B.A., Drexel University.

DOUGLAS NAGY, Ph.D., Assistant Professor of Physics
B.S., M.S. and Ph.D., Pennsylvania State University.

BRUCE EDWARD RIDEOUT, Ph.D., Assistant Professor of Psychology
A.B., Boston University College of Liberal Arts; M.S. and Ph.D., University of Massachusetts.

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B.S., Bloomsburg State College; M.B.A., Temple University.

JUDITH EMMA FRYER, M.S. in L.S., Periodicals Librarian
B.A., Ursinus College; M.S. in L.S., Drexel Institute of Technology.

THEODORE ANDREW XARAS, M.F.A., Assistant Professor of Fine Art
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B.A., Barnard College; Ph.D., Cornell University.

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B.S. and M.Ed., Trenton State College.
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B.A., Syracuse University; M.S., San Francisco State University.

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B.S., Ursinus College.

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B.A., M.A., Rutgers, The State University.

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B.S. in Nursing, Widener College; R.N.; A.T.C.

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B.S., Ursinus College, M.S. Ed., Cortland State University.

GERALDINE ANNE EDWARDS, M.A., Lecturer in English
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B.A., Mercyhurst College, M.A.T., Harvard University.

EDWARD JOSEPH CLINTON, M.A., Lecturer in Education
B.A., St. Charles Borromeo Seminary; M.A., Villanova University.
COLETTE TROVT HALL, M.A., Lecturer in French
Licence, Universite de Nanterre; M.A., Bryn Mawr College.

CHARLES C. YOHN, M.Ed., Lecturer in Education
B.S. in Ed., Shippensburg State College; M.Ed., Kutztown State College

CARLA WELSH YOUNG, M.A., Lecturer in Philosophy
B.A., Connecticut College; M.A., Bryn Mawr College.

JULIA NASH MURPHY, Ph.D., Lecturer in History
A.B., Wilson College; M.A., University of Pennsylvania; M.A. and Ph.D., Bryn Mawr College.

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A.B., Georgia Southern College; M.A., University of Georgia.

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B.S. and M.Eng., Cornell University.

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B.S. and B.A., North Carolina State University; M.A., University of North Carolina, Greensboro.

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B.S., Pennsylvania State University; M.A. and Ph.D., Temple University.

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College Scholars Committee: Professors Novack, Fago, Takats, Perreten.

**Committees to which Faculty Elects Members**


*Advisory Committee on Promotion and Tenure:* President Richter, Chairman; Dean Akin. Elected by faculty: Professors Davis, Zucker, Takats, Fletcher.

*Advisory Committee on College Priorities:* President Richter, Chairman; Deans Akin, Schultz; Mr. Williams. Elected by faculty: Professors Barth, Pancoast, R. Staiger. Voice without vote: Dr. Kane. (Also functions as Campus Planning Group with President Richter as chairman and including Keith Buchbaum and Peggy Owens, students, and Mr. Broadbent.)

*Appeals Committee:* Professors BreMiller, Pancoast, Symons. Three administrative representatives to be appointed by the President.

*Campus Life Committee:* Professors Shuck, Novack, M. Staiger, Phillips; Dr. Kane; Dean Rebuck. (Four student representatives: Vickie Spang, Chairperson; Mark Lewis, David Borgstrom, Earl Hope.) Board representative: Dr. Shetler.

*Judiciary Committee:* Professor Barth, Chairman; Professors BreMiller, Davidson; Dr. Kane. Alternates: Professors Takats, Pancoast, Shuck.

*Campus Investment Committee Representative:* Professor Symons.

*Board Budget Committee Representative:* To be elected.

*Board Buildings and Grounds Committee Representatives:* Professor R. Schultz; Professor Small.

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*Task Force on Faculty Development:* Dean Akin, Chairman; Professors Small, Espadas, Pilgrim, Miller; Dr. Kane; Dean Schultz. Board representatives: Drs. Gladfelter, Stellar.

*Writing Skills:* Professor Storey, Chairman; Professors Dolman, Zucker, Doughty, Shuck, M. Staiger; Mr. Haley; one student to be appointed.

*Cheating and Plagiarism:* Professors Hardman, Shuck, Kane.
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The Alumni Senior Award—
  Mark Brendlinger Woodland, '80, Kimberly Ann McFadden, '80
The American Chemical Society Award—Susan Ellen Malin, '80
The Cyrus E. Beekey Prize—David Nelson Rosvold, '80
The George Ditter Prize—Kimberly Ann McFadden, '80
The Duttera Prize—William Bennett Petersen, '81
The Ehret Prize—John Francis Curley, '80
The Edwin M. Fogel Prize—William Samuel Stoll, '81
The Philip H. Fogel Memorial Prize—Paulette Prudhon Tremblay, '80
The French Award—Sophie Hand, '82
The Ronald C. Kichline Prize—Raymond Sydney Dougherty, '80
The Willima L. Lettinger Chemistry Award—
  Jeffrey Scott Hinkle, '80, Susan Ellen Malin, '80
The Elizabeth Rockefeller McClean Prize—Janet Louise Wegman, '82
The George E. Nitzsche Prize—
  Kevin Glenn Ludwig, '80, Patricia Marie Naab, '80
The Paisley Prize—Louise Anne Stack, '80
The Peters Prize—Robert Anthony Donato, '80
Professor William J. Phillips Prize—Sharon Dreslin Earl
The Robert Truckssess Prize—Thomas Michael Ward, '80
The Ursinus Women’s Club Prize—Jan Eileen Zanger, '80
The Wagman Prize—Kevin Glenn Ludwig, '80
The Professor Elizabeth B. White Prize—
  Joey B. Lazar, '81, Terry Sue Silva, '81

The Whitian Prize—Cynthia Ann Fisher, '83

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SALUTATORIAN: David Nelson Rosvold
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  Ronald Watson Lippe
  Susan Ellen Malin
  David Nelson Rosvold
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  Pamela Kelley
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  Margaret Ann Williams
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Brian David Carnavil
Mario Nicola DeSimone
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Mario Nicola DeSimone

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Eugene Herbert Miller
Robert Herron Atwell
Everett Martin Bailey
Doctor of Humane Letters
Doctor of Divinity
Doctor of Laws
Doctor of Laws
Doctor of Science

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Thomas Michael Ward
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Kenneth Edward West, Jr.
Andrea Shedden Wickerham
Kristine Gail Wieboldt
Jan Eileen Zanger
<table>
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<th>Name</th>
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<tr>
<td>Hunter Marsden Addis, ’54</td>
<td>George Samuel Helms</td>
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<td>Dawn Pendleton Anthony</td>
<td>Jeffery Scott Hinkle</td>
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<td>Lori Armbrust</td>
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<td>H. Brent Bamberger, Jr.</td>
<td>John Eric Ingeholm</td>
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<td>Sylvia Soledad Barreiro</td>
<td>Kyle Marie Jackson</td>
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<td>Donald Richard Beadle, Jr.</td>
<td>Pamela Ann Kelley</td>
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<td>Michael Foster Eddinger</td>
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<td>Sharon Lee Fahrney</td>
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<td>Jill Anne Hadley</td>
<td>Robert Lamar Ochs, Jr.</td>
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<tr>
<td>John Henry Hallman</td>
<td>Jae Young Oh, ’76</td>
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<td>Jack Lester Hauler</td>
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Vincent Paul Palmisano, Jr.
Arthur Paul Petrillo
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Henry W. Pfeiffer, '48, 73 Linden Lane, Chatham, NJ 07928

E. Eugene Shelley, Esq., '37, 35 North George Street, York, PA 17401
<table>
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<tr>
<th>Month</th>
<th>Day</th>
<th>Date</th>
<th>Event/Notes</th>
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<tr>
<td>January</td>
<td>19</td>
<td>Monday</td>
<td>Second Semester begins, 8:00 a.m.</td>
</tr>
<tr>
<td>February</td>
<td>27</td>
<td>Friday</td>
<td>Last day for filing financial aid applications</td>
</tr>
<tr>
<td>March</td>
<td>6</td>
<td>Friday</td>
<td>Mid-Semester grades due, 4:00 p.m.</td>
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<tr>
<td>March</td>
<td>6</td>
<td>Friday</td>
<td>Spring Recess begins, 5:30 p.m.</td>
</tr>
<tr>
<td>March</td>
<td>11</td>
<td>Wednesday</td>
<td>Mid-Semester grades mailed</td>
</tr>
<tr>
<td>March</td>
<td>16</td>
<td>Monday</td>
<td>Spring Recess ends, 8:00 a.m.</td>
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<td></td>
<td>Pre-Registration begins</td>
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<tr>
<td>April</td>
<td>16</td>
<td>Thursday</td>
<td>Easter Recess begins, 5:30 p.m.</td>
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<tr>
<td>April</td>
<td>21</td>
<td>Tuesday</td>
<td>Easter Recess ends, 8:00 a.m.</td>
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<td>May</td>
<td>5</td>
<td>Tuesday</td>
<td>Last day of classes</td>
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<tr>
<td>May</td>
<td>7</td>
<td>Thursday</td>
<td>Second Semester exams begin</td>
</tr>
<tr>
<td>May</td>
<td>14</td>
<td>Thursday</td>
<td>Second Semester exams end</td>
</tr>
<tr>
<td>May</td>
<td>17</td>
<td>Sunday</td>
<td>Baccalaureate Service, 10:30 a.m.</td>
</tr>
<tr>
<td>May</td>
<td>17</td>
<td>Sunday</td>
<td>Commencement, 2:00 p.m.</td>
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<tr>
<td>May</td>
<td>22-24</td>
<td>Fri.-Sun.</td>
<td>Alumni Weekend</td>
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<tr>
<td>May</td>
<td>20</td>
<td>Wednesday</td>
<td>Summer School begins, 8:00 a.m.</td>
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<tr>
<td>August</td>
<td>13</td>
<td>Thursday</td>
<td>Summer School ends, 5:30 p.m.</td>
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<td>August</td>
<td>29</td>
<td>Saturday</td>
<td>Freshman program begins, Academic Convocation, 1:30 p.m.</td>
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<td>31</td>
<td>Monday</td>
<td>First Semester begins, 8:00 a.m.</td>
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<tr>
<td>September</td>
<td>11</td>
<td>Friday</td>
<td>Last day to add courses</td>
</tr>
<tr>
<td>October</td>
<td>10</td>
<td>Saturday</td>
<td>Parents’ Day</td>
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<tr>
<td>October</td>
<td>16</td>
<td>Friday</td>
<td>Last day to drop courses without recording a failure</td>
</tr>
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<td>16</td>
<td>Friday</td>
<td>Mid-Semester grades due, 4:00 p.m.</td>
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<td>Friday</td>
<td>Classes end, 5:30 p.m.</td>
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<td>Tuesday</td>
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<td>October</td>
<td>21</td>
<td>Wednesday</td>
<td>Mid-Semester grades mailed</td>
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<tr>
<td>October</td>
<td>24</td>
<td>Saturday</td>
<td>Homecoming Day</td>
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<tr>
<td>November</td>
<td>1</td>
<td>Sunday</td>
<td>Founders’ Day</td>
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<tr>
<td>November</td>
<td>25</td>
<td>Wednesday</td>
<td>Thanksgiving Recess begins, 5:30 p.m.</td>
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<td>November</td>
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<td>Thanksgiving Recess ends, 8:00 a.m.</td>
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<tr>
<td>December</td>
<td>8</td>
<td>Tuesday</td>
<td>Last day of classes</td>
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<tr>
<td>December</td>
<td>10</td>
<td>Thursday</td>
<td>First Semester examinations begin</td>
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<tr>
<td>December</td>
<td>17</td>
<td>Thursday</td>
<td>First Semester examinations end</td>
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## COLLEGE CALENDAR FOR 1981-1982

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<th>January</th>
<th>18</th>
<th>Monday</th>
<th>Second Semester begins, 8:00 a.m.</th>
</tr>
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<tbody>
<tr>
<td>January</td>
<td>29</td>
<td>Friday</td>
<td>Last day to add courses</td>
</tr>
<tr>
<td>March</td>
<td>1</td>
<td>Monday</td>
<td>Last day for filing financial aid applications</td>
</tr>
<tr>
<td>March</td>
<td>5</td>
<td>Friday</td>
<td>Last day to drop courses without recording a failure</td>
</tr>
<tr>
<td>March</td>
<td>5</td>
<td>Friday</td>
<td>Mid-Semester grades due, 4:00 p.m.</td>
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<td>5</td>
<td>Friday</td>
<td>Spring Recess begins, 5:30 p.m.</td>
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<td>March</td>
<td>10</td>
<td>Wednesday</td>
<td>Mid-Semester grades mailed</td>
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<tr>
<td>March</td>
<td>15</td>
<td>Monday</td>
<td>Spring Recess ends, 8:00 a.m.</td>
</tr>
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<td>17</td>
<td>Wednesday</td>
<td>Pre-Registration begins</td>
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<tr>
<td>May</td>
<td>4</td>
<td>Tuesday</td>
<td>Last day of classes</td>
</tr>
<tr>
<td>May</td>
<td>6</td>
<td>Thursday</td>
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<tr>
<td>May</td>
<td>21-23</td>
<td>Fri.-Sun.</td>
<td>Alumni Weekend</td>
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<tr>
<td>August</td>
<td>12</td>
<td>Thursday</td>
<td>Summer School ends, 5:30 p.m.</td>
</tr>
<tr>
<td>August</td>
<td>28</td>
<td>Saturday</td>
<td>Freshman program begins,</td>
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<td></td>
<td></td>
<td></td>
<td>Academic Convocation, 4:00 p.m.</td>
</tr>
<tr>
<td>August</td>
<td>30</td>
<td>Monday</td>
<td>First Semester begins, 8:00 a.m.</td>
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Title IX of the Educational Amendments of 1972 is a federal law designed to eliminate sex discrimination in educational programs and activities. The law provides that "no person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education programs or activity..." Ursinus College complies with Section 504 of the Rehabilitation Act of 1973, as amended, which provides that "no otherwise qualified handicapped individual...shall, solely by reason of his handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance." Any person with a complaint regarding discrimination on the basis of sex or handicap is invited to communicate with Richard P. Richter, President of Ursinus College, who is title IX Coordinator, Room 238, Corsen Hall, 489-4111, Ext. 212. Ursinus College complies fully with the "Family Educational Rights and Privacy Act of 1974." The guidelines adopted by the College and a copy of the Act are available for inspection in the Office of the Dean of the College during regular business hours.
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2. Curtis Hall, dormitory for men
3. Wilkinson Hall, lounge and dormitory for men
4. Brodbeck Hall, dormitory for men
5. Myrin Library, computer center
6. Bomberger Memorial Hall, classrooms, chapel, faculty offices
7. College Store, Bear Pit
8. College Union, snack bar, lounges and game room
9. Corson Hall, administration
10. Studio Cottage
11. Infirmary
12. Maintenance Building
13. Paisley, Stauffer, Beardwood Halls, dormitories for women
14. Ritter Center for the Dramatic Arts
15. Heating and Power Plant
16. Wismer Hall, dining, theater, classrooms
17. Dormitory for women, 944 Main Street
18. Dormitory for women, 942 Main Street
19. Marjorie T. Elliott House, President’s Home, 785 Main Street
20. Isenberg Hall, dormitory for men, 801 Main Street
21. Todd Hall, dormitory for women, 724 Main Street
22. Owosco Hall, dormitory for women, 701 Main Street
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25. Swing Hall, U.C.C. Conference Hq., 620 Main Street
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27. Shreiner Hall, dormitory for women, 6th Avenue and Main Street
28. South Hall, dormitory for women, 6th Avenue
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