1990-1991 Ursinus College Course Catalog

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Ursinus College

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Ursinus College

1990-91 Catalog
Ursinus College does not discriminate on grounds of race, color, national origin, sex, age or handicap in the administration of any of its educational programs or activities or with respect to employment. Inquiries should be directed to President Richard P. Richter, 504 Coordinator and Title IX Coordinator, Corson Hall, (215) 489-4111.

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.

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.
Communications with Ursinus College

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

**Academic and Faculty Affairs**
William E. Akin, Vice President for Academic Affairs and Dean of the College

**Academic Standing of Students and Requests for Transcripts**
Barbara Boris, Registrar

**Admission**
Richard DiFeliciantonio, Director of Admission

**Alumni Affairs**
Mary Ellen DeWane, Director of Alumni Affairs and Coordinator of Campus Events

**Career Planning and Placement**
Carla M. Rinde, Director of Career Planning and Placement

**Continuing Education**
C. Joseph Nace, Dean of Continuing Education

**Financial Aid and Student Employment**
Eva Hess, Director of Financial Aid

**General College Matters**
Richard P. Richter, President

**Gifts to the College**
Hudson B. Scattergood, Vice President for College Relations

**Payment of Bills**
Walter Ednie, Controller

**Student Life**
J. Houghton Kane, Dean of Student Life

**Summer School**
C. Joseph Nace, Dean of Continuing Education

Correspondence should be directed to the appropriate administrative officer. The mailing address is Ursinus College, Collegeville, Pennsylvania 19426.

The College telephone number is (215) 489-4111.

Visitors to the College are welcome. Student guides are available when the College is in session. The Office of Admission is located in Corson Hall. To assure a satisfactory visit, applicants for admission should call or write for an appointment.

Directions and maps to Collegeville are found on the inside back cover of the catalog.
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The mission of Ursinus College is to enable students to become independent, responsible, and thoughtful individuals through a program of liberal education.

That education prepares them to live creatively and usefully and to provide leadership for their society in an interdependent world.
This is Ursinus

The College in Brief

Ursinus College is an independent, four-year liberal arts college with a tradition of academic excellence reaching back to its founding in 1869. It enrolls about 1,200 students, divided almost equally between men and women. Over 1,000 students are residents in College dormitories. The others live at home and commute from surrounding areas.

All students undergo a lively process of general education, while concentrating in one of 20 major fields. They also have an opportunity to take minor concentrations in areas outside their majors to allow for career options or for greater intellectual breadth or depth.

Over 75 percent of the members of the full-time 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.

Ursinus College is part of the richly-varied higher educational community of the larger Philadelphia region. Its 140-acre campus in suburban Montgomery County is just 30 miles from Center City. The small town ambience of Collegeville contrasts with busy Philadelphia and the huge shopping complex ten miles away at King of Prussia.

A high percentage of Ursinus students enter graduate and professional 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 laity 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 some two centuries ago of a log schoolhouse. 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 an adjacent tract. During the following two decades many young men were educated there.

In 1867 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 16th-century scholar and reformer, Zacharias Ursinus of the University of Heidelberg, Germany. On Feb. 5, 1869 the College was granted a charter by the Legislature of Pennsylvania. The buildings of Freeland Seminary were acquired, and instruction began on Sept. 6, 1870. Women were first admitted to the College 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, known as Ursinus Academy, operated until 1910.

College Principles and Traditions

Although independent of church control, Ursinus College is voluntarily related to the United Church of Christ through its Council for Higher Education. The College has been church-related since its founding in 1869 by pastors and lay members of the German Reformed Church.

The inclusive spirit of the Reformed Church led to unions with the Evangelical Synod of North America to form the Evangelical and Reformed Church in 1934 and with the Congregational Christian Churches in 1957 to form what is now the United Church of Christ.

This broad and open religious tradition stresses the importance of intellectual development and strongly affirms higher education. By virtue of its association with the church through the decades, Ursinus has always given priority to the development of high ethical standards, personal values, and an understanding of others. Today the Christian principles and traditions of the College continue to reinforce its educational mission. They help to inform the College community, which is composed of persons of many religious persuasions, in the search for an understanding of peace, justice, and the need for human cooperation.
Educational Mission

The mission of Ursinus College is to enable students to become independent, responsible and thoughtful individuals through a program of liberal education. That education prepares them to live creatively and usefully and to provide leadership for their society in an interdependent world.

Liberal education is provided through an academic program that empowers the intellect, awakens moral sensitivity, and challenges students to improve society. Students gain intellectual curiosity, the capacity to think analytically, critically, and creatively, and the skill to express thoughts with logic, clarity, and grace. Further, they develop a deepened sense of human history and an understanding of who they are as persons, what they ought to do as citizens, and how they best can appreciate the diversity and ambiguity of contemporary experience.

The faculty is the cornerstone of our academic program. Faculty members are dedicated to teaching and learning and set high standards for themselves and for students. They choose to be active scholars because they are involved teachers, seeking to transmit their enthusiasm for learning to their students.

The faculty joins with the professional staff in an educational program that extends outside of the classroom. As a predominantly residential community, the College fosters a shared life and provides an opportunity for the comprehensive personal development of all students. By taking active part in the varied programs of the campus, students have the opportunity to develop their intellectual, creative, and physical talents and to strengthen their personal values in the context of the principles and traditions of Ursinus.

The College seeks students of varied backgrounds who actively search for meaning and purpose in their lives. It nurtures a sense of community by engaging students and faculty together in an unfinished conversation about liberal learning—how it is grounded in the fundamentals of human experience, broadens the mind, enhances compassion, and prepares us for a life of service.

Cultural Environment

Students have the advantages of living in a small town, yet have easy access to the rich cultural opportunities available in nearby Philadelphia and in New York City. The College is the home of the Philip and Muriel Berman Museum of Art which offers a variety of exhibitions and events for the campus community. An important outdoor sculpture collection enhances the living and academic environment. In addition, students can see plays and operas, hear some
of the greatest symphonic music in the world, visit museums and historical sites, and 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 for 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 Secondary Schools and Colleges, 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.

**The College Year**

The College year consists of two semesters of 15 weeks each and a summer session. 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 programs 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.
Ursinus gives great emphasis to the quality of student life for both resident and commuting 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. As a part of the regular campus planning process, policies affecting student life are under continuous review with the goal of furthering the educational effectiveness of residence hall life, social activities, counseling and advising.

The student life program is administered by the Office of Student Life. It includes offices dealing with career planning and placement, counseling, financial aid, health services, student activities, and residential life.

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 educational climate 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.

**Student Center**
The Student Center, located in Wismer Hall, is a major social center on campus, providing many services and activities. It includes a snack bar, game room, television lounge, print shop, the Student Activities office, the offices of the student government, and Campus Activities Board.

**Religious Life**
From its founding, Ursinus College has maintained its relationship with the German Reformed Church, now the United Church of Christ, and has encouraged its students to explore and develop their spiritual life as part of a liberal arts education. In response to a heritage that recognizes diversity of expression and freedom of worship, no student is ever denied admission to the college because of sect or creed.

In addition to courses offered through the department of philosophy and religion, Ursinus College offers a variety of worship services on
campus. The campus minister is the coordinator of campus religious life and serves as a counselor to those in need. The minister's office sponsors ecumenical services and activities during the academic year and coordinates the activities of the five campus religious organizations (Fellowship of Christian Athletics, Ecumenical Society, Intervarsity Christian Fellowship, the Newman Society, and Hillel.) A Protestant worship service and Roman Catholic Mass are held weekly on campus. Jewish students are encouraged to attend one of the nearby synagogues. They have the opportunity through Hillel to participate in activities on campus and with the Jewish student community in the greater Delaware Valley.

The Meditation Chapel is available to the Ursinus community for meditation and prayer and serves as a meeting place for religious groups.

Women and men considering the possibility of careers within their churches or synagogues are assisted in their preparation by the guidance of the campus minister and various resources on campus.

Counseling
With the goal of promoting emotional well-being for members of the Ursinus community, the Counseling Office assists students in addressing common developmental issues. Counseling services are offered in Studio Cottage by the director of counseling and the campus minister. In addition, the Counseling Office supports and assists wellness programming for the campus.

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 Health Center during regular office hours. The Health Center does not provide facilities for housing students who are ill or injured.

Students requiring allergy injections must present signed permission slips from their personal physicians and from their parents. A charge of $1.00 will be made for each allergy injection administered by Health Center 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.
The Health Center is open from 8:00 A.M. to 4:00 P.M. on weekdays. At other times, nurses are on call, but do not staff the health center. Except for extreme emergencies, the student seeking medical attention is responsible for reporting to the Health Center or to an area hospital to obtain treatment. When emergency treatment is required, the College will make every effort to assist the student in obtaining treatment. The cost of treatment by physicians and nurses not on the College staff is to be borne by the student.

Security
Located in the Reimert Residential Complex, the Department of Security provides services and protection 24 hours a day, 7 days a week. The staff consists of a director, eight full-time officers and 40 student security officers, 14 of whom patrol on-and off-campus residences with portable radios. An escort service is available to all students, and the service is provided between academic buildings and residences by student and non-student security officers. All security personnel participate in in-service training programs and regularly receive updated security materials. While Ursinus College security officers cannot make arrests, they are all acquainted with criminal laws and procedures. Officers have received training in basic first aid and C.P.R., and emergency medical assistance is available through the Trappe Ambulance Corps. The department cooperates with the state police agency and maintains an excellent working relationship with the Collegeville Police Department, which assists as needed. All crimes involving violence, major property loss or any felony are reported by the Security Department to the Police Department. All crime statistics are reported on forms and in the format required by the Pennsylvania State Police.

Room and Meals
In order to fulfill its mission, Ursinus requires all students who do not live in their own homes to reside in College residence halls and take their meals in the College Dining Hall.

The College Dining Hall is located in Wismer Hall. The College meal plan serves students three meals a day during the academic year.

Athletics
Ursinus College recognizes the physical, social and moral benefits derived from athletic activity and offers a well-balanced sports program open to all. Athletics are part of the total educational program of the College. Athletes are students and students may be athletes. The athletic program exists only because the academic program exists.

The primary emphasis in athletics is to enhance personal development through a broad-based program of spirited competition. Successful
competition is recognized as a legitimate objective to be achieved in an ethical manner consistent with the stated mission of the College.

Coaches are educators and coaching is viewed as a specialized form of teaching the values of training, strategy, hard work, team play, and vigorous competition – all a part of a sound educational program. In addition, lessons in courtesy and sportsmanship, for participants and spectators alike, are to be fostered.

Equal opportunities are available for all men and women. The ultimate objective of the athletic program is to develop in students the recreational and social competencies for their effective use of leisure time.

Men’s intercollegiate competition takes place in football, basketball, soccer, wrestling, swimming, cross country, golf, baseball, track and tennis. For women students, the College supports intercollegiate competition in field hockey, basketball, softball, tennis, swimming, lacrosse, gymnastics, volleyball, cross country and track. The intramural program provides additional recreational opportunities for men and women in touch football, basketball, volleyball, softball, water polo, tennis, track and table tennis. Club programs for men and women are sponsored in lacrosse, fencing, sailing, bicycling, bicycle racing, dancing, fishing, cheerleading, skiing and racquetball.

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

Organizations

Ursinus students find opportunities for education and recreation through a large number of organizations. Constitutions for all student organizations are approved by the Student Activities Committee and the faculty. In addition, members of the faculty and administration serve these groups as advisers, and the Student Activities Committee and the Student Activities Office serve as resources for student organizations. The Ursinus Student Government Association (USGA) has the principal responsibility for student participation in the planning and administration of student life. USGA members are elected by the student body and are advised by a member of the Office of Student Activities. The Campus Activities Board (CAB) is the primary source of campus-wide programming, providing movies, dances, concerts, trips, and entertainment, as well as opportunities for leadership development.
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, Student Chapter of the Association for Computing Machinery, the Communications Club, the Economics and Business Club, the German Club, the Haines-Barnard Pre-Legal Society, the International Relations Club, the Japanese Club, *Le Cercle Français*, Musser Hall International Organization, the G. Leslie Omwake Education Club, the Political Science Club, the Psychology Club, the Society of Physics Students, the Spanish Club, and the Forensic Society.

Religious organizations include the Fellowship of Christian Athletes, Intervarsity Christian Fellowship, the Newman Society, Hillel and the Ursinus Ecumenical Society.

Special interest organizations include Amnesty International, Circle K, College Republicans, Human Animal Interaction Organization, Minority Student Union, Organization of Commuting Students, SADD, Students Right-to-Life, Student Voice for Choice, Ursinus Students Environmental Action Coalition, and the Young Democrats.

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.

Music plays a large part in the life of Ursinus. Faculty members in the music department advise the student musical organizations and provide professional musical leadership. The Meistersingers and Chamber Singers offer concerts on and off campus, including a one-week tour each year. The Ursinus College Choir offers a wide variety of literature, from modern to major classical works. Its annual presentation of Handel’s *Messiah* is a highlight of the musical year on campus. The music department also provides opportunities for instrumental performance—the College Concert Band, Jazz Ensemble, Jazztet and Pep Band. In addition, the music department offers private instruction in piano, organ, guitar, voice, woodwinds, brass and percussion.

A variety of cultural programs enhance students’ exposure to the arts and issues of contemporary interest. The Forum Fine Arts Series and the Forum Lecture Series bring notable artists and speakers to the campus community. In addition, film series, theatrical productions and concerts are sponsored by campus organizations and academic departments.

There are numerous local social organizations on the Ursinus campus. The fraternities are Sigma Rho Lambda; Alpha Chi Sigma, a local
service fraternity; Alpha Phi Epsilon; Delta Mu Sigma; Pi Omega Delta; Beta Sigma Lambda; Delta Pi Sigma; Zeta Chi, and Alpha Phi Omega, a national service fraternity. The sororities are Omega Chi; Alpha Sigma Nu, a local service sorority; Kappa Delta Kappa; Phi Alpha Psi, and Tau Sigma Gamma. Representatives of these social organizations serve on the Inter-Sorority and Inter-Fraternity councils.

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 faculty adviser. It is published twice a year.

*The Ruby*, the Ursinus yearbook, is published by an all-student staff each year. It is a volume presenting an intimate pictorial account of the year’s activities, not only of the senior class, but of the entire College.

*WVOU*, the campus radio station, is designed to present a varied agenda of music, from classical to rock, and campus and world news.

The Campus Setting

A major building program, undertaken to celebrate the centennial of the College in 1969, transformed the Ursinus campus into a modern and highly-attractive setting for liberal education. Among subsequent campus renovations and construction projects, the award-winning Residential Village, the Philip and Muriel Berman Museum of Art and F.W. Olin Hall are some of the most recent.

Wismer Hall, completed in 1965, is one of the chief points of activity on campus. It contains the Student Center, Dining Hall, Parents’ Lounge and a lecture hall. 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, a Romanesque structure built in 1891 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. In November 1981, the restored
STUDENT LIFE ON CAMPUS

tower of Bomberger Hall was named Wagner Tower in honor of James E. Wagner, D.D., former president of the Evangelical & Reformed Church (1953-1961), co-president of the United Church of Christ (1957-1961), and vice president of Ursinus College (1962-1968). Bomberger Auditorium houses the Heefner Memorial Organ. This three-manual 62-rank organ, dedicated in 1986, was the gift of Mrs. Lydia V. Heefner in memory of her husband, Russell E. Heefner.

Between Bomberger and Wismer halls is the site of the F.W. Olin building, now under construction, which will house academic departments, classrooms and other facilities.

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, computer science 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 the 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 Sept. 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 home of the psychology and biology departments, it complements Pfahler Hall of Science. It is the home of the following endowed laboratories: Levi Jay Hammond Laboratory of Comparative Anatomy, the W. Wayne Babcock Laboratory of General Biology, and 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 175,000 volumes, 155,000 microforms, 30,500 audiovisual materials, and 900 current periodical subscriptions. It is also a selective depository for U.S. Government documents and Pennsylvania documents. In Sept. 1988 a computerized on-line catalog replaced the old manual card catalog.

Study facilities for 500 persons are provided in carrels, seminar rooms, private study rooms, and lounges. During the academic year the library is open 110 hours per week. The Electronic Media Resources Center, the Curriculum Materials Center, the Pennsylvania German Studies Archive, and the Ursinusiana Collection also are located in the Library.
An experienced staff of librarians provides reference and information service 55 hours per week to assist students and faculty in the use and interpretation of library collections. An ongoing program of library orientation and instruction, in cooperation with the academic departments, is designed to familiarize students with research materials and appropriate search strategies. Direct access to over 11 million volumes is available through the Tri-State Library Cooperative. Over 600 online databases are available for computerized literature searches in all academic disciplines.

The automated Myrin Bibliographic System provides circulation and reserves control and also an online public access catalog. Catalog terminals are located throughout the library and in other buildings on campus. Dial access is also available to the library’s online catalog. The computerized catalog can be searched by author, title, subject, call number and keyword. The library provides both individual and group instruction on the use of the online catalog.

Five terminals connected to the Online Computer Library Center’s bibliographic network provide worldwide access to 6,500 research collections and over 21 million volumes. The Interlibrary Delivery Service of Pennsylvania supports interlibrary loan functions.

The Myrin Library received a $750,000 grant from the Mabel Pew Myrin Charitable Trusts in 1986. This grant funded a three-year renovation project. The Myrin Library was formally rededicated on Founders’ Day, Nov. 5, 1989.

The Ursinus College Computer Center, an IBM microcomputer lab and an Apple microcomputer lab, are also located in the Myrin Library. See page 18.

The Philip and Muriel Berman Museum of Art was dedicated Oct. 22, 1989 and is located in the original Alumni Memorial Library, built in 1921, formerly the College Union. The museum offers exhibitions and related programming focusing on an outstanding permanent collection and a variety of touring exhibitions from around the country.

The Berman Museum provides a valuable cultural resource for the campus community and the surrounding region.

The facilities include a multipurpose space for seminars, lectures and films; a non-circulating art library focusing on important texts related to the collections and specific art reference volumes; three separate exhibition galleries; complete storage and work areas. The library has an on-line public access catalog terminal linked to Myrin Library to facilitate research.

Corson Hall, the Administration Building, named in honor of the late 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 Admission Office, where candidates for entrance to the College make application. The main administrative offices are found here.

The D. L. Helfferich Hall of Health and Physical Education and The William Elliott Pool were dedicated Oct. 21, 1972, Founders’ Day, in honor, respectively, of the ninth president of Ursinus College, 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. A sculpture of a bear (Ursinus' mascot), chiseled by Charles Sherman from the trunk of a 250-year-old sycamore tree, which until 1983 stood next to the end zone of the football field, is located in the lobby.

Helfferich Hall is supplemented by the Utility Gym, located adjacent to Ritter Center and dedicated Oct. 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 theater with flexible staging, a television studio and various auxiliary rooms. It was dedicated Oct. 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 as seniors at the College. A new College Store, built in 1989, is located next to the Helfferich Hall parking lot.

Among the outdoor athletic and recreational facilities are Price Field, Patterson Field, Evans Field and Snell Field. Price Field, which includes the baseball diamond, soccer field, and football practice fields, is named for Dr. John Price, ’05, one of the great athletes in Ursinus history. Football games and track meets take place at Patterson Field, named for the College’s first benefactor, Robert Patterson. The Effie Brant Evans Hockey Field is located at the east end of campus near Stauffer Hall. The Eleanor Frost Snell Softball Field, named after an outstanding Ursinus educator and coach, is one of the newest additions to the athletic field complex. Eight tennis courts and an outdoor shuffle-board court are located behind Helfferich Hall.

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., LL.D., vice president and professor of mathematics,
1870-1891, and president, 1892-1893; Sprankle Hall, on the east campus fronting Fifth Avenue, the Student Health Center; The Eger Gateway, erected through the generosity of George P. Eger, of Reading, Pa., at the entrance of the walk leading from Main Street to Myrin Library; the statue of Zacharias Ursinus in front of Bomberger Hall, donated by Philip and Muriel Berman and sculpted by Michael Price; The power plant, a 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.

**Computer Facilities**

The Ursinus College academic computing facilities consists of a VAX 11/780 mainframe system, a P.C. network, and various other microcomputers located around campus. The main academic computer facility is located in the Myrin Library where students may use the Ursinus College VAX 11/780, or use the College’s three microcomputer labs. These computers may be used whenever the library is open. The library is open 7 days a week for a total of 110 hours. Additionally, dialup facilities are available so that students may call up the mainframe 24 hours a day, seven days a week.

The Ursinus VAX 11/780 is a Digital Equipment Corp. 32-bit superminicomputer capable of handling a total of 192 simultaneous users. This system is exclusively for student and faculty use. Administrative computing and the library automated system run on other systems. The VAX 11/780 has 16 megabytes of internal memory and a Floating Point Accelerator for improved speed and accuracy. Currently a total of over 1.6 gigabytes of disk storage is attached. The system uses Digital’s Virtual Memory operating System (VMS). Additionally, the 11/780 has Digital’s Unix shell installed. Programming languages currently supported are BASIC, C, COBOL, FORTRAN, and Pascal. Software currently available includes SAS statistical system, IMSL math and statistical Library; the data base software Datatrieve, VMS/ROB, and VAX Common Data Dictionary; and the computer algebra system REDUCE.

The College has three general purpose microcomputer labs in Myrin Library. One lab contains 23 IBM-PC compatible microcomputers networked over a Ethernet network. Several word processors, Lotus 1-2-3, dBASE III PLUS and R:BASE for DOS are available on this network. Several printers in the lab and a laser printer in the main computer area are also on the network. The other lab contains three Apple IIe’s and nine Macintosh SE’s. Both labs are open for general student use whenever not scheduled for class use. The third lab containing 10 IBM-PC’s is reserved exclusively for student use.
Residence Halls
The College offers living accommodations for 1,100 students. Thirty-two residence halls and houses provide a variety of sizes and programming styles. Approximately half of the resident students live in traditional residence halls, and half reside in residence houses, many of which are part of the College’s Residential Village. Residence halls range in size from 5 to 250 residents. Quiet halls, which implement a 24-hour quiet policy, are offered to men and women in both houses and large residence halls.

Musser Hall, Ursinus College’s newest residence hall, offers an international experience program. Students selected for the program participate in the planning and implementation of programs that broaden the College community’s understanding of international cultures.

Shipment of Belongings
The College will accept United Parcel shipments at the Mail Room between the hours of 8 A.M. and 4:00 P.M., Monday through Friday, one week prior to opening date providing:
1. the mail room has been notified in writing when to expect shipment and from whom;
2. the shipment arrives prepaid.

The College can accept no responsibility for the condition of the shipment.

Career Planning and Placement
The Career Planning and Placement Office assists students in relating their educational plans to future opportunities and in acquiring life skills essential for successful career planning and creative job hunting. The Career Planning and Placement Office will assist students in designing their college experience to insure the best possible preparation for the personal and occupational objectives they have chosen.

Through individual career counseling and special programs, students are given the opportunity for self assessment and career exploration. Seminars and workshops on topics related to career planning such as “Resume Writing”, “Interviewing Skills”, and “Job Search Strategies” are open to all students. DISCOVER, a computer-assisted guidance program, is available to students interested in learning about the career decision process.

A career resources library offers information about corporations, government agencies, non-profit organizations, specific career fields,
internships, graduate schools, and general career planning and job hunting resources. Also available is a set of job announcements listing full-time, part-time, and summer opportunities.

Representatives from business, government, and non-profit organizations visit the Ursinus campus throughout the academic year to interview seniors for positions available after graduation. A number of students participate in this on-campus recruiting program.

The Grizzly Network is made up of alumni and parents who have volunteered to share their experiences and advice with interested students. They provide exciting contacts in all career areas including business, law, communications, medicine, and the like. Some of these alumni participate in campus programs such as the "Grizzly Network Career Day."

Exploring Careers is a monthly newsletter advertising career seminars, graduate testing dates, special events, employment trends, and visits by recruiters.

Job Flash is a bi-weekly publication listing part-time, full-time and summer job vacancies.
Admission

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

The first step in seeking admission to Ursinus College is to file an application. The Admission Office will supply forms for this purpose to all who request them. Each completed application must be accompanied by a $25 application fee. The applicant must be recommended by two teachers and the high school guidance office, and must request that an official transcript of his or her secondary school records be sent to the College by the secondary institution. Further, it is the responsibility of the candidate to make arrangements to take the Scholastic Aptitude Test of the College Board and to have the official test results sent to the director of admission. The personal interview is strongly recommended, the arrangements for which are the responsibility of the candidate.

The deadline for applying under the Regular Decision plan is March 1. Candidates for Early Decision must apply by Dec. 1 (See below for a description of the Early Decision plan).

Tests
Candidates for admission to the freshman class are required to take the Scholastic Aptitude Test. 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 Board, P.O. Box 592, Princeton, New Jersey 08540. The College Board number for Ursinus College is 2931.

Requirements
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 or she must offer for admission at least 16 units, which are to be distributed as follows:
Basic Academic Credits (11 units)
English, Four years, Four units
Elementary Mathematics (Algebra and either Geometry or PreCalculus), Three Units
Science, One Unit
Social Studies, One Unit
Foreign Language, Two Units in One Language

Additional Academic Credits (at least 2½ Units)
Calculus
Advanced Mathematics
Statistics
Computer Science
Solid Geometry
Trigonometry
Science
Social Studies
Foreign Language

Electives (Maximum of 3½ Units)
Not more than one unit will be granted for any single elective
Music (history or appreciation)
Art (history or appreciation)
Studio Art.

Candidates graduated from a three-year high school should offer at least 12 units, which must 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 judgement of the Committee on Admission, they are qualified to do college work satisfactorily.

Early Decision
The College offers a program of early admission to those students for whom Ursinus College is their first choice. The procedure for making application under the Early Decision plan is the same as outlined above for Regular Decision. However, candidates applying under the Early Decision plan have chosen Ursinus College as their first choice and, if admitted, their commitment to attend is binding. Admitted candidates must withdraw all other college applications. Admissions decisions are deferred until Regular Decision for those students applying and not admitted under the Early Decision plan. The deadline for applying under the Early Decision plan is Dec. 1. Candidates will be notified of the admission decision by Jan. 1.
Special Program for High School Students and Senior Citizens

Ursinus College has established a program for area high school students and senior citizens (defined as 62 years of age or older). Further information may be obtained from the Admission Office.

Junior Admission

A limited number of outstanding high school juniors who have completed all or nearly all requirements for graduation from high school may be considered for admission. Such students will be considered only upon the strong recommendation of the guidance counselor and with the assurance that the student will receive his or her high school diploma either before or upon successful completion of the freshman year in college.

Outstanding juniors may apply for admission in the late spring or during the summer preceding the senior year. An applicant must be recommended by two teachers and the high school guidance office, and must request that an official transcript of his or her secondary school records from ninth through eleventh grades be sent to the College by the secondary institution. He or she also should have junior year Scholastic Aptitude Test results sent to the director of admission. We strongly recommend that all candidates take achievement tests. The personal interview is strongly recommended, the arrangements for which are the responsibility of the candidate.

Engineering Program

Arrangements have been made with the engineering schools of the University of Pennsylvania, the Georgia Institute of Technology, and the University of Southern California, to which a student may apply for transfer after completing three years of prescribed work toward a B.A. at Ursinus College.

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

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

Students who wish to take the same foreign language in college that they took in high school, must take the language placement test given by the modern language department at Ursinus. The result of this test
combined with their high school language experience will determine the students' language placement at Ursinus.

**Advanced Placement**
Students who wish to be considered for advanced courses upon admission may submit the results of the advanced placement examinations 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 director of admission 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 director of admission to take a course at another college.*

**College Level Examination Program (CLEP)**
Another means by which incoming students may earn advanced credit is through the College Level Examination Program (CLEP). These are examinations offered by the College Board as a means by which colleges may offer 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, N.J. 08540.

**Readmission** (see page 46)

**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 12 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 request that each institution he or she has attended, including the secondary school, send to the director of admission a transcript of his or her academic record. In addition, recommendations from two professors and 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 sends a catalog of the college he or she has been attending, marked to indicate the courses taken. Credit will be given for courses for which we offer a reasonable equivalent and in which a grade of C (2.00) or better has been earned.

*A maximum of 62 hours of work taken elsewhere can be credited to students transferring to Ursinus College.*

**Foreign Students**
The College encourages superior foreign students who have successfully completed their secondary school studies to apply for admission. Foreign students are asked to complete a preliminary application before eligibility can be determined. Applicants must achieve a minimum score of 550 in the Test of English as a Foreign Language (TOEFL) if their language of instruction has not been English. A limited amount of financial aid is available to eligible foreign students demonstrating need.

**Part-Time Students**
Commuting students who are candidates for a degree and who wish to pursue fewer than 12 hours of work are classified as part-time students.

**Handicapped Students**
The Office of Admission should be advised of any disabilities to assure that the student is provided suitable accommodations. Ursinus College is aware that handicapped persons may have special needs and is willing to make adjustments to meet these needs in order to make the program accessible to them.

**Notification of Admission**
When candidates for admission are notified of acceptance by the College, each must make an advance payment of $250.00 in accordance with the provisions of the letter of acceptance. This payment is credited to the bill for the first term. The payment is non-refundable and forfeited if the candidate does not enroll.

**Summer School**
Ursinus College Summer School (day session) 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 Division students at Ursinus or elsewhere, with a high school diploma and with a minimum of 15 semester hours of work successfully completed (equivalent of C/2.00 average).

4. High School students who have just completed their junior year, on recommendation of their counselors and of the Committee on Admission. High School graduates 62 years or older, on recommendation of the Committee on Admission. These two groups pay only half of the regular tuition.

Applications of those whose qualifications do not fit the above categories must be acted upon by the Committee on Admission.

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 Dean of Continuing Education, Summer School, Ursinus College, Collegeville, Pa., 19426.

Continuing Education
Ursinus endeavors to educate non-traditional students by means of a continuing education program that is in harmony with the College’s mission of liberal education, informed by the educational programs for traditional students, and responsive to the special needs of the people in its region. Continuing education consists of the Evening Division, the Life-Long Learning program for non-traditional students taking courses in the day, non-credit continuing education programs, St. Joseph’s University MBA at Ursinus, and summer session programs.

The Ursinus College Evening Division was founded in 1952. Its purpose is to make both single college courses and entire degree programs available to adults ("non-traditional" students) who because of employment, family and other personal commitments, are unable to pursue academic goals during traditional daytime hours. Evening programs are designed to enable a student to: complete 64 semester hours of coursework leading to an associate’s degree; complete 128 semester hours of coursework leading to a bachelor’s degree; complete coursework leading to a post-baccalaureate Certificate of Professional Studies or teacher certification; select individual courses of special interest; complete coursework leading to a Master of Business Administration degree in conjunction with St. Joseph’s University. Full-time Ursinus students enrolled in the College may register for evening courses, with the permission of their advisers and the dean of the college, when class space is available. Evening Division registration procedures must be followed.
The College provides counseling, support services, individualized academic advising and special tuition grants for qualified adult students seeking admission to both day and evening programs.

For information about credit and non-credit Continuing Education Programs, address the Dean of Continuing Education, Ursinus College, Collegeville, PA 19426.

Special note is made of the following continuing education programs.

**Degree Programs**: Degree programs offered entirely through evening courses are Associate in Business Administration, Bachelor of Business Administration, Associate in Arts, and Bachelor of Arts with a major in English, history or philosophy and religion.

Evening Division students have the option of pursuing the Bachelor of Arts or Science Degree in other major areas, but these programs involve taking some day courses.

**Post-Baccalaureate Certificates of Professional Studies**: The Certificate of Professional Studies is offered to college graduates holding the bachelor’s degree or higher, who want to add specific organizational/business knowledge and skills to their existing knowledge base. The certificate is available in accounting, computer science/applied, finance, human resources, management, and marketing areas of concentration, and consists of 30 hours of course work.

**Secondary Teacher Certification**: Adults who have earned a bachelor’s degree, or who are currently completing requirements for a bachelor’s degree, may take education courses as a minor concentration or as electives in their program. These students may also obtain teacher certification through a traditional program of study, which includes a student-teaching experience to be scheduled during day hours.

**Teaching Intern Certification**: Teaching Intern Certification is an alternative program of study for adults who already possess a bachelor’s degree and wish to add secondary teaching certification to their credentials. This program enables an adult to teach full-time as a paid professional employee in a public school system while completing the education courses required for teacher certification.

**Adults Taking Day Courses**: Adults who meet the College entrance requirements may be admitted into day courses on either a part-time or full-time basis.

**St. Joseph’s University Master of Business Administration Program at Ursinus**: Ursinus College has contracted with St. Joseph’s University, Philadelphia, Pa., to provide instruction and support services for the offering of preparatory and graduate courses on the Ursinus campus, leading to the MBA degree conferred by St. Joseph’s.
Non-Credit Programs: Varied non-credit workshops and seminars provide opportunities for members of the community at large to participate in evening and Saturday programs of short duration. These courses develop and enhance academic, professional and personal skills. The College provides counseling, support services, individualized academic advising and special tuition grants for qualified adult students seeking admission to both day and evening programs.

For information about credit and non-credit Continuing Education Programs, address the Dean of Continuing Education, Ursinus College, Collegeville, Pa., 19426.
Financial Information

Tuition, Board, Fees

Student Charges Per Year
Basic student charges at Ursinus College include tuition, room and board for resident students and an activities 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. Approximately 65 percent of all students receive some form of assistance in paying tuition and fees.

For 1990-91, the following rates apply: tuition, $11,400; room and board, $4,250; activities fee, $120.

Payments are made as follows: new students, $250 advance payment as requested and $100 reserve deposit as indicated on bill; old students, $250 advance payment as requested. All students pay one-half annual charges in August less credit for advance payment, and one-half of the activities fee. The second one-half payments are made in January.

Charges quoted are made on an annual basis. Billings are presented semiannually and are due for payment no later than the date indicated on the billing. A $50 deferred payment fee is charged each account which remains unpaid on the first day of each semester.

When the student is a recipient of an Ursinus College scholarship award, credit for one-half the value of the annual award will be applied to the account for each semester bill.

For those who prefer to pay college costs on a monthly basis, the College offers an installment payment plan managed by the Knight Insurance Agency Incorporated of Boston. In addition, for those who prefer longer-term extended payments, the College makes available three other plans: the EduCheck plan through the Mellon Bank of Delaware, a loan program; also, an insured tuition payment plan, a prepayment plan, and an extended repayment plan, an insured loan program, both available through the Knight Insurance Agency. Information about these programs is available through the Treasurer’s Office.

While the College has arranged for the payment plans noted, parents and students may choose from any available programs that provide for
payment to the College as indicated on the student bill. For 1990-91, there is a Federally supported Parent Loan Program (PLUS) and a state subsidized Help Loan Program. For additional information, see pages 38 and 39. These arrangements should be made early enough to assume payment of bills no later than the date indicated on the billing.

**Explanation of Charges**

*Application Fee:* A fee of $25 is paid by the candidate at the time the application is filed. *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 $400 *per semester hour.* If registered for 12 or more hours, students will be charged full tuition.

Checks should be made payable to Ursinus College.

*Advance Payment* (a) Upon acceptance by the College, applicants must make an advance payment of $250 by May 1. This payment is credited on the bill for the first term. If they fail to complete matriculation, this payment is forfeited. (b) All regularly enrolled students must make an advance payment of $250 at such time as may be designated by the College. This payment is forfeited if the student fails to complete 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.*

*Freshman Orientation Fee.* A fee of $50 is charged to all freshman students on their fall term bill, and is applied to the costs associated with the orientation programs.

*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 supports the programs of the Campus Activities Board, activities approved by the Student Activities Committee, and the maintenance of the student center. It also covers subscription to the *Grizzly*, the Ursinus College Forum, admission without further charge to all Ursinus athletic contests at the College, and use of College athletic facilities as scheduled.

*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 pro rata billing will appear on the student’s bill.

**Student Medical Insurance Option.** An optional insurance plan is available to extend accident coverage through the summer months and purchase sickness medical expense and major medical expense benefits for a full 12 months. Students may also enroll their dependents in the optional accident and sickness plans. Announcement of the plan is mailed with the first billing, either fall or spring semesters. This insurance is mandatory for all foreign students.

**Room Drawing.** Previously-enrolled students 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 students fail to complete their registration.

**Science Major Fee.** $125 per semester: All students majoring in biology, chemistry, physics, pre-engineering and freshmen who are enrolled in undesignated natural science. $30 per semester: All sophomores, juniors and seniors majoring in psychology.

**Fine Arts Fee.** A fee of $35 per semester is charged for students enrolled in Art 201, 202, 301 and 302.

**Reserve Deposit.** A deposit of $100 is required from all full-time, and all special and part-time students enrolled for nine or more semester hours of credit. The deposit is required to defray expenses incurred through damage to College property or through fines. This is included in the bill for the first term.

In order to maintain a balance of $100 per student in the reserve deposit account at all times, students will be billed for each fine or instance of damage as it occurs. Any balance remaining will be refunded when the student graduates or withdraws from the College.

**Student Teaching.** An additional fee of $125 is required of each student engaged in student teaching, supervised field experience or the teaching internship. This is payable upon presentation of the bill.

**Graduation Fee.** A graduation fee of $25 is charged to all students on the last bill of their 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 attire.

**Private instruction in music fee.** A fee of $180 per semester is charged for students taking private music instruction. The fee is for 14 half-hour lessons per semester.
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 Registrar. No grade reports or transcripts will be issued if there is an unpaid balance in a student’s account or if the student is in default on a student loan.

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 students change their resident/day status, a new ID card must be issued. There is a $5.00 change of status fee.

Placement Service Fee:
(a) Students until Sept. 1 following their graduation: No charge.
(b) Alumni from Sept. 1 following their graduation, using existing credentials: $1.50 per set of credentials.
(c) Alumni who newly register or re-register with changes in references resulting in a reorganized placement folder: $2.50 for registration or re-registration; $1.50 per set of new credentials.

Regulations
Bills for student fees are issued approximately 30 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.

Delinquent accounts will be placed for collection, and the College will add collection costs to the delinquent amount. The total amount will then be payable in full.

Students who are absent from College because of sickness and retain their place in class pay student fees in full during their absence, except that when the absence is continuous over a period exceeding four weeks, resident students are allowed a pro rata rebate for each full week of absence.

Changes in marital status should be reported to the College immediately.

Address changes must be reported to the College as soon as possible.

A student who voluntarily withdraws from the College must notify the dean of the College in writing and settle all bills within 30 days or be liable to dishonorable dismissal.
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 or withdrawal from the College prior to the first day of class, the student will receive a full refund of monies paid, less $250.00 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 or withdrawal from the College, and no refund is made of amounts paid for dormitory rooms. After the first day of class and until the end of the first half of an academic term, the pro rata refund shall be as follows:

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<tr>
<th>Withdrawal Percentage</th>
<th>Within Week</th>
<th>Refund</th>
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<tr>
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<td>87.5</td>
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<td>62.5</td>
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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 shall be the date on which the College has notified the student of such action.

In the event that a student participates in the Stafford Loan Program or other Title IV program, refunds of such funds shall be made promptly, but not more than 30 days after the College receives a loan disbursement or other check, as provided under Federal Regulation ss682.604 and PHEAA Guidelines, Chapter III, Section 3, Page 8 and 9.

**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 state and Federally supported grant and loan programs. (Part-time degree candidates may qualify for Pell Grants, Charlotte Newcombe Grants, or Stafford Loans.) Ursinus College is pleased to offer merit scholarships and also recognizes merit awards given by outside organizations.

Financial aid may be offered in a single form or in combinations of grant, loan, and employment. The financial aid package is based on demonstrated need as determined through Congressional methodology. Proven academic excellence and leadership abilities may also be considered.

**Application Procedure**

All students wishing consideration for scholarship assistance or financial aid must submit a Financial Aid Form (F.A.F.), with all question completed, to the College Scholarship Service (C.S.S.) no later than March 1. All late applications will be considered if funds are available. The F.A.F. and the student’s individual state application, where applicable (i.e., Pa. State/Federal Aid Application), are the only applications required to be filed for financial aid consideration. These forms must be filed for each year the student wishes to continue aid.

The F.A.F. can be obtained from secondary school guidance offices or the Ursinus College Financial Aid Office. The Ursinus College Code is #2931. If the F.A.F. is filed before March 1, freshman and transfer students’ award notices will be released by April 1. Upperclass applicants should obtain the F.A.F. by January and submit it to C.S.S. by April 1. Upperclass award notices will be sent by early July if all required documentation is received in the Financial Aid Office. *The College requires the submission of parent and student Federal income tax forms to be considered for any aid offered by Ursinus College.*

An independent (self-supporting) student must file an F.A.F., sides 1 and 2, with C.S.S. under the same guidelines as above. Also, student and parent Federal income tax forms are required as documentation. All students who enter Ursinus as dependent aid filers will remain dependent for all Ursinus funds for the entire period of enrollment. Independent students are those who are over 24 years of age; orphans or wards of the court; married students not claimed by parents as a Federal tax exemption; veterans; parents of dependent children; students not claimed by parents as Federal tax exemptions who earn at least $4000 per year for two consecutive years; or those determined as
independent by the director of financial aid with appropriate documentation.

All students should realize that financial aid is not automatic and requires formal application for each year that aid is expected. Financial aid normally continues at the same level unless financial need deviates from prior years or Federal regulations change. Full-time attendance is required for all scholarship and need-based aid except for the Pell Grant, Stafford Loan and PLUS. Foreign students must submit the Declaration of Finances and Application for Foreign Students, available from the Office of Admission.

Ursinus College Scholarship and Aid Programs
The College administers scholarship, loan and student employment funds totaling over $5 million each year. Of the entire student body, approximately 65 percent receive some form of financial aid, whether it be through student employment, loans, college grants or scholarships. Every student submitting an F.A.F. will be considered automatically for all aid programs administered by the College.

Scholarships
The Scholarship Committee will award as many as 10 Steinbright and Board of Directors scholarships, ranging from $8,000 to full tuition, to outstanding freshmen enrolling in the fall of 1990. A separate scholarship application is required for all merit applicants and is due on March 1.

Steinbright Scholarships, supported by endowments through the generosity of Harold D. and Edith C. Steinbright, and their daughter, Dr. Marilyn Lee Steinbright, are offered to a maximum of four entering freshmen, known as Steinbright Scholars.

Board of Directors Scholarships are granted to a maximum of six entering freshmen, known as Board of Directors Scholars. Both the Steinbright and Board of Directors Scholarships will be granted without regard to financial need. The recipients will be selected on their academic merit. All awards are subject to yearly review and will be continued in the initial amount for four years provided the scholar maintains a yearly average of 85/3.2 or better and demonstrates responsible citizenship.

Ursinus College Community Scholarships will be awarded to as many as five freshmen from area high schools. The recipients must demonstrate academic excellence and commute from their homes to the College. The candidates will be chosen on the basis of academic merit and without regard to financial need. The Community Scholarships will provide up to one-half of tuition and will be renewed yearly in the
original amount, provided the recipients maintain a yearly average of 80/2.67 or better and continue to commute from their homes to the College.

Bomberger Scholarships, named in memory of the College’s first president, Dr. John H. A. Bomberger, are awarded to entering freshmen who have demonstrated both outstanding citizenship and leadership qualities while participating in various types of extracurricular activities in high school and in the community. Bomberger Scholarships will be granted without regard to financial need and will be awarded in amounts ranging between $1,000 and $3,000. These scholarships will be reviewed yearly and will be continued, provided the recipient maintains a yearly average of 75/2.33 or better and continues to demonstrate responsible citizenship and leadership on campus.

Freeland Scholarships, named in honor of Freeland Hall, which stood at the center of campus for over 100 years, are awarded to entering freshmen who have demonstrated both academic strength and leadership qualities. Freeland Scholarships are made without regard to financial need and range from $2,000 to $4,000. These awards will be reviewed yearly and will be continued provided the recipient maintains a yearly average of 80/2.67 or better and continues to demonstrate responsible citizenship and leadership on campus.

W. W. Smith Prize: The W. W. Smith Trust of Rosemont, Pa. sponsors two $5,000 prizes to be awarded to the top senior W. W. Smith Scholars at Ursinus. Selection is made by the Scholarship Committee. Students must be on Dean’s List and demonstrate financial need of $5,000 or more to be considered.

Other Campus and Aid Programs
Ursinus College Grants: Grants which are awarded by the College do not have to be repaid. Recipients must have demonstrated financial need each year as determined by the financial need analysis system and are expected to remain in good academic and social standing.

Supplemental Educational Opportunity Grants (S.E.O.G.): These grants are Federally funded and must be designated by the College to students with substantial financial need; primarily to those receiving Pell Grant assistance. The average grant is $1,000 although higher-need students may receive up to $4,000. The S.E.O.G. Program is subject to change according to government regulations. Those filing the Financial Aid Form with Ursinus will be considered for this program.
Charlotte Newcombe Scholarships: This scholarship fund is supported by the Charlotte Newcombe Foundation in Princeton, N.J. Women, age 25 or above, may apply for this scholarship if one half of the required coursework towards a bachelor’s degree is completed and financial need is demonstrated. Those pursuing teaching certificates will also be considered.

Perkins Loan: This Federally funded student loan is offered to applicants with high financial need, especially when state or Pell Grant assistance is negligible. Loans from $500 to $2,250 are awarded with the total not to exceed $9,000 for the four years of undergraduate study. The interest rate is 5 percent. Perkins Loans must be paid within 10 years after a student graduates or leaves the College for other reasons, with repayment beginning nine months after this established date. If a student continues with graduate study, repayment is deferred as long as half-time enrollment is maintained. Upon graduation, repayment begins on a normal schedule. The Perkins Loan program is subject to changing Federal regulations.

Gulf Oil Loan Program: The Gulf Oil Student Loan Fund is available to junior and senior students as an emergency fund. Total loans may not exceed $1,000. Recipients must be degree candidates and maintain a satisfactory academic average. The loans are at low interest with deferred repayment benefits, similar to the Perkins Loan program. Need for the loan must be substantiated by a Financial Aid Form.

Student Employment: The College provides students with the opportunity to earn part of their college expenses through campus employment in more than 500 positions on campus. College Work-Study will be offered to eligible applicants to meet any remaining need after grant, scholarship, and loan assistance has been utilized. The C.W.S. entitlement is determined by subtracting all aid from the established need. Priority in job placement is given to students assigned to C.W.S. Students not eligible for C.W.S. will be placed on the college payroll if possible. Working just seven hours a week, a student can expect to earn about $800 during the academic year. Examples of the positions available are: dining hall helper; lab assistants in biology and chemistry; library assistants; house managers in the Student Center; bookstore clerks; departmental typists; administrative clerks; maintenance helpers; 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. Students are permitted to work a maximum of 20 hours per week.
Off-campus positions are made available by private employers, and are advertised by the Career Planning and Placement Office.

**Federal and State Programs**

**Pell Grant:** This is a Federal grant made available to students with exceptional financial need. Application is made by filing either a Financial Aid Form or a Pennsylvania State Grant/Federal Student Aid form. Both forms are available in high school guidance offices. Four to six weeks after filing, students receive a Student Aid Report (S.A.R.) with an index number. All copies of the S.A.R. should be sent to the Financial Aid Office for verification and determination of the grant award.

**State Grant Programs:** Many states have a separate state grant application or a State Specific Financial Aid Form. The states which allow grants to be utilized at Ursinus include: Connecticut, Delaware, Maryland, Massachusetts, Ohio, Pennsylvania, Rhode Island and West Virginia. Applications are available in high school guidance offices and must be filed between January 1 and May 1, depending on the state. The maximum Pennsylvania state grant is $2,100 currently, but is subject to change by the Pennsylvania legislature.

**Stafford Loans, formerly Guaranteed Student Loans:** Freshmen and sophomores may borrow up to $2,625, while juniors and seniors may borrow up to $4,000 annually. The interest rate is 8 percent through the fifth year of repayment, and then becomes 10 percent. Repayment is deferred until six months after graduation or withdrawal. Applications are available at participating banks and other lending institutions and must be renewed annually. These loans are based on financial need for all families. The loan amounts, interest rates and eligibility rules are subject to change by the Federal government. The Pennsylvania Higher Education Assistance Agency has offered a non-subsidized Stafford Loan for students denied the regular, subsidized loan. The program was funded in 1989-90 and may be renewed for 1990-91 as a component of The Help Loan Program.

**Sources of Assistance Not Based on Need**

**National Merit Scholarship:** Students selected as National Merit Finalists are encouraged to list Ursinus as their first choice college. Ursinus hopes to sponsor three-to-four scholarships ranging in value from $500 to $2,000. 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.
Scholars in Education Awards: The Scholars in Education Awards (SEA) program is available to Pennsylvania residents only who intend to major in mathematics or science and who plan to enter the teaching profession under the public school system. To be eligible to apply, entering and current freshmen must have a combined SAT score of at least 1000 with a minimum mathematics score of 550, or an ACT score of 22 in English and a minimum of 27 in mathematics. Freshmen must also be in the top fifth of their high school class. All current sophomore and junior candidates must have a 3.0 average in science or mathematics, depending on the major. Awards are made without regard to financial need and are valued at 50 percent of annual tuition to a maximum of $5,000. Questions concerning the program may be directed to the Financial Aid Office.

Parent Loan Program (P.L.U.S.): This is a Federally supported program of loans to parents of dependent undergraduate students. The maximum amount a parent may borrow for one student in an academic year is $4,000. The aggregate loan limit for each dependent student is $20,000. Please note that repayment is required to begin within 60 days after the loan disbursement, unless otherwise indicated by the lender. There is no Federal interest subsidy on parent loans. The current interest rate for the Parent Loan Program is the T-bill plus 3.75 points, not to exceed 12 percent. Loan applications are available at local banks and other lending institutions and many require standard commercial credit checks.

Tuition Exchange: Ursinus College is a member of the Tuition Exchange Program. Requests for tuition remission by children of faculty members of member institutions will be considered upon their 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, and the like. High school guidance counselors usually maintain lists of the local organizations sponsoring awards for college bound students.

Satisfactory Progress

Recipients of financial aid are required to maintain satisfactory academic progress in order to be considered for continued financial assistance from Federal, state, and college sources.

Satisfactory progress will be reviewed on an annual basis at the end of the spring semester. Students who do not meet the standards of
satisfactory progress will lose all financial aid for one year, at which
time their progress will be re-evaluated.

Financial aid recipients must successfully complete the required
number of credits listed below:

<table>
<thead>
<tr>
<th>Type</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time Freshman</td>
<td>24</td>
</tr>
<tr>
<td>Full-time Sophomore</td>
<td>48</td>
</tr>
<tr>
<td>Full-time Junior</td>
<td>72</td>
</tr>
<tr>
<td>3/4 time Freshman</td>
<td>18</td>
</tr>
<tr>
<td>3/4 time Sophomore</td>
<td>36</td>
</tr>
<tr>
<td>3/4 time Junior</td>
<td>54</td>
</tr>
<tr>
<td>1/2 time Freshman</td>
<td>12</td>
</tr>
<tr>
<td>1/2 time Sophomore</td>
<td>24</td>
</tr>
<tr>
<td>1/2 time Junior</td>
<td>36</td>
</tr>
</tbody>
</table>

The maximum time in which to complete the 128 credits for
graduation is five years for a full-time student, seven years for a three-quarter-time student, and 10 years for a half-time student.

The minimum acceptable grade average is determined by the faculty.
If a student drops below a 70 yearly grade average for the class of
1991 or below a 2.0 for the classes of 1992, 1993, and 1994, the
faculty will decide if the student may continue at Ursinus. If the
decision is positive, and the student has completed the necessary
number of credits, he or she may continue to receive financial aid.

However, if a student completing the sophomore or junior year has
below the required yearly grade average and is permitted to remain at
Ursinus, his or her Ursinus grant may be reduced by 10 percent for the
following academic year. Whenever possible, this reduction in grant
may be compensated for by an increase in loan or campus job
earnings.

Both deficiencies in grades or earned credits may be made up by
taking summer school classes at Ursinus or courses approved by the
Dean’s Office to be taken at another college.

The Ursinus College Financial Aid Brochure, entitled “Lists for
Planning Your College Finances,” 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 at Ursinus College. By this system, 20 majors are offered in 15 departments: anthropology and sociology; biology; chemistry; classical studies; communication arts; English; economics and business administration; health, physical education and recreation; history; mathematics and computer science; modern languages; philosophy and religion; physics; politics; and psychology. In addition, there are interdisciplinary majors in applied mathematics/economics and international relations.

Freshman Advising Program
The Freshman Advising Program is designed to assist new students in adjusting to the educational challenges of the college experience. New students meet on a regular basis with their freshman advisers throughout the first year and consult with them about selection of courses, study skills, and personal and career goals.

Choice of Studies
At matriculation, students designate possible areas of academic interest. In the second semester, freshman may declare a major field to study in depth. Students who have not decided on a major by the end of the second or third semester will retain their freshman advisers. In the fourth semester, students must designate a major field. The chairpersons of the students’ major departments will assign their academic advisers. The approval of the adviser is necessary before a student may register for or enter any course of study, or discontinue any work.

Registration
First-year students register for the fall semester in consultation with their advisers on freshman orientation days held during the summer. Returning students register for the fall semester during the spring registration period listed in the back of the catalog. Registration for the spring term is completed for all students during the fall registration period listed in the back of the catalog.
Students are registered after they submit course-of-study sheets to the registrar, according to the schedule for the registration period published by the Registrar’s Office. Before that, students consult with their advisers to prepare schedules of courses for their college careers.

*Students must remember that they alone are responsible for making sure they have completed college requirements and departmental requirements.* When students change their majors, they must fulfill the requirements of the most-recent major department in order to be graduated.

Students may add or drop courses at any time during the first two weeks of classes. No full semester course may be added after the second week of classes, and no physical education activity course may be added after the first week of classes.

Courses dropped after the second week of classes (first week for physical education activities courses) but before the mid-point of the course will be designated by a W on the student’s record. Students who withdraw after the mid-point of a course will receive a grade of WF. Students who withdraw from a course without permission will receive a grade of F. A fee is charged for any change in registration after the first three days of the semester.

**Study Elsewhere**  
Students are not permitted to earn credit towards graduation from Ursinus College by study at another college unless they have been granted permission by their academic advisers and the Committee on Academic Standing. Required courses in the department of a student’s major should be taken at Ursinus. Approval to take such courses elsewhere will be granted by the Academic Standing Committee only with the approval of the chairman of the major department and if special or mitigating circumstances exist. Credit, but not grades, for approved courses taken elsewhere will be transferred upon successful completion of the course with a grade of C (2.00) or better and upon receipt of an official transcript from the other college. It is recommended that students take these courses at a four-year 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 obligation will render the student liable to dishonorable dismissal.
Requirements for Graduation
Students who matriculated prior to June 1990 must follow requirements in effect when they matriculated.

The requirements for the degree of Bachelor of Arts (B.A.) or Bachelor of Science (B.S.) for students who matriculated in or after June 1990 are:

(1) the completion of 128 semester hours, and all the courses required by the faculty, including the courses required for a major; and

(2) a GPA of C (2.00) or above for all courses taken at Ursinus College.

To qualify for the degree of Bachelor of Arts or Bachelor of Science a student must have successfully completed a minimum of 64 semester hours of credit at Ursinus. Half of the semester hours of credits required in the major department must be taken at Ursinus; exceptions may be granted by the dean of the College. A diploma from the College, not the Evening Division, requires that a student spend the two semesters of the senior year as a full-time student.

A full-time student may not take fewer than 12 semester hours per semester. The normal load for a term is 16-18 credits. It is recommended that students normally take no more than 16 credits per semester. Students may register for up to 18 credits with the approval of their advisers. They may not register for more than 18 credits in any semester without special permission from the dean of the College. Students carrying fewer than 12 hours are not permitted to remain or to become residents of College residence halls.

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.

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 judgement 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 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, unless the dean, after consultation with the faculty member, permits the student to be reinstated.

Students on academic probation are subject to the same regulations as first-year students.

Students for whom an academic warning is issued must limit future absences in that course to the number of times the course meets per week. After the issuance of an academic warning, a student who exceeds the allowed number of absences may be excluded from the course with a grade of F, unless the dean, after consultation with the faculty member, permits the student to be reinstated.

Any instructor may set attendance regulations for courses, but in no case will a student be limited to fewer absences than twice the number of weekly meetings of the course. The faculty member must announce the attendance policy and its consequences on the class syllabus.

**Grades of Scholarship**

Students who matriculated prior to June 1988 must follow the system in effect when they matriculated.

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

<table>
<thead>
<tr>
<th>grade</th>
<th>GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>4.00</td>
</tr>
<tr>
<td>A</td>
<td>4.00</td>
</tr>
<tr>
<td>A-</td>
<td>3.67</td>
</tr>
<tr>
<td>B+</td>
<td>3.33</td>
</tr>
<tr>
<td>B</td>
<td>3.00</td>
</tr>
<tr>
<td>B-</td>
<td>2.67</td>
</tr>
<tr>
<td>C+</td>
<td>2.33</td>
</tr>
<tr>
<td>C</td>
<td>2.00</td>
</tr>
<tr>
<td>C-</td>
<td>1.67</td>
</tr>
<tr>
<td>D+</td>
<td>1.33</td>
</tr>
<tr>
<td>D</td>
<td>1.00</td>
</tr>
<tr>
<td>D-</td>
<td>0.67</td>
</tr>
<tr>
<td>F</td>
<td>0.00</td>
</tr>
</tbody>
</table>

The mark of W signifies that a student withdrew from the course prior
to the mid-point of a course, and is not calculated into a student’s average. The mark of WF signifies that a student withdrew from the course after the mid-point of the course, and is calculated into the student’s average as an F (0.00).

The mark of I, which may be given only with the written permission of the dean, is reserved for cases of incomplete work, due to documented physical incapacitation or other extenuating circumstances beyond the student’s control. 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.

**Academic Probation**

Students who matriculated prior to June 1988 must follow requirements in effect when they matriculated.

Any students who matriculated in or after June 1988 and who have a GPA below C (2.00) at the end of any semester or who have a semester GPA below 2.00 will be placed on academic probation by the Committee on Academic Standing or by the faculty. Students on academic probation may be restricted in their extra-curricular activities. On-campus employment and Ursinus College financial aid may be restricted for a student whose average for the preceding academic year, including summer session, is below C (2.00).

**Dismissal**

Students who matriculated prior to June 1988 must follow requirements in effect when they matriculated.

Students who matriculated in or after June 1988 will be dismissed from the College if at the end of their first semester their GPA is below 0.67; if at the end of their second semester their GPA is below 1.33; if at the end of their third semester their GPA is below 1.67; if at the end of their fourth semester or 64 semester hours (including transfer credits), or any subsequent semester, their GPA is below 2.00. Students will also be dismissed if they achieve a semester average below C (2.00) for more than two successive semesters, regardless of their cumulative average. Exceptions to the above policy must be approved by the faculty, or by the Academic Standing Committee acting for the faculty. The action of the faculty, or the Academic Standing Committee acting for the faculty, in all cases is final. Students who have been dismissed are not eligible to take courses in the Ursinus College Evening Division or in summer school at Ursinus.

Any student may be dismissed from the College for academic violations such as cheating or plagiarism, regardless of the student’s academic average. Non-academic reasons for dismissal are outlined in the Student Handbook.
Repeating courses
Students who matriculated prior to June 1988 must follow requirements in effect when they matriculated.

Students who matriculated in or after June 1988 may retake any course, but they shall receive credit only once for the same course. Although a course may be retaken as many times as necessary to receive a passing grade, students may repeat only once courses they passed on the initial try. All grades for courses taken at Ursinus will appear on the transcript, but the last grade earned will replace the previous grades for the purpose of calculating the GPA. Credits earned elsewhere and accepted as transfer credits will not alter the GPA or serve as a replacement grade.

Readmission
Students who have been discontinued for academic reasons may apply for readmission. Unless there are unusual circumstances, applications for readmission will not be considered unless one academic year has passed before the readmission date. Readmission is not automatic. To be considered for readmission, students must demonstrate that they are able and prepared to return to the College for serious academic work. They should take courses at an accredited institution and obtain at least a B (3.0) average. They may work or engage in community service or other volunteer activities that will demonstrate a seriousness of purpose.

Application for readmission is made to the Office of Admission. Students' previous academic performance and social activities at Ursinus will be important factors in the readmission decision. The faculty or the Academic Standing Committee must approve readmissions.

Summer School
The curriculum of the Summer School is announced in the spring of each year. For further information contact the dean of continuing education.

In the evening sessions, three-semester-hour courses meet two evenings a week for seven-and-one-half weeks. Two courses may be carried simultaneously. However, students may not be enrolled in the evening session if they are also enrolled in either of the first two day sessions. For further information contact the Evening Division.

Students wishing to take summer school at other colleges must obtain approval in advance from their adviser, from the chairperson of their department if they wish to take a required course, and from the Dean's Office. In order for credits for such approved courses to be transferred
to Ursinus, the student must obtain a grade of C (2.0) or better and arrange for the college where the courses were taken to send an official transcript to Ursinus.

Study Abroad
Ursinus College students may spend a semester, a year, or a summer at a foreign university, provided they are students in good standing, are recommended by their major adviser, and, in the opinion of the dean and the faculty, will be worthy representatives of the College and will profit from this experience. Normally, only juniors are encouraged to apply for study abroad, but qualified sophomores also may be recommended. The immediate knowledge of the cultural heritage of another country, with its contemporary economic and social problems, affords students an awareness of differing values and an understanding of our own country’s relation to issues which confront the world today. Students, whether language majors or not, are encouraged to study abroad, but they normally should have completed courses at least through the intermediate level in the language of the country involved. The course of study abroad must be approved at the time that permission is given. Upon evidence of successful completion of the program, a maximum of 16 credits per term will be given for studies pursued abroad. An examination covering the year’s work may be required by the department chairperson upon the student’s return. Information may be obtained from the study abroad adviser. Interested students should also see the Ursinus Summer Study in Japan program and the Summer Study in Mexico, pages 87 and 126.

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

A student in good standing who has earned a minimum of 96 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 study at Ursinus College 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 3.85 or above, Magna Cum Laude, 3.67 but less than 3.85; and Cum Laude, 3.5 but less than 3.67, are given only for unusual excellence in all subjects pursued by the candidate. Graduation honors will be calculated at the end of the fall term. If as a result of work done in the spring semester a student should merit distinction or a higher distinction, such honors will be awarded ex post facto.

Dean's Honor List: All regular or full-time students achieving an average of 3.33 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 Ursinus Day Convocation the names of those students who have been carried on the Dean’s Honor List for the preceding two semesters.

Honor Societies

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.

Sigma Xi: The 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.

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 Jan. 1, 1950. Election to the society is based on academic achievement in the social sciences and limited to juniors and seniors.

*Alpha Sigma Lambda:* The national honorary society for continuing higher education students, was founded in 1945 at Northwestern University. The Ursinus College chapter, Gamma Omicron, was installed April 8, 1983. Election to the society is based on academic achievement and is limited to sophomore, junior and senior continuing education students.

*Cub and Key Society:* The Cub and Key Society was founded in 1939 at Ursinus College to recognize the male leaders of the campus who have distinguished themselves through high scholastic standing, participation in extra curricular activities, and service to the College community. Election to the society is limited to second semester juniors.

*Whitian Society:* The Whitian Society was founded in 1939 at Ursinus College by Dr. Elizabeth B. White, professor of history and dean of women. The society recognizes the achievements of women who have distinguished themselves through outstanding academic performance, in addition to leadership and service to the College. Election to the society is limited to second semester juniors.

Other honorary societies are discipline-based. They include: *Alpha Psi Omega,* a national honorary dramatics fraternity; *Beta Beta Beta,* an honorary society for the biological sciences; *Kappa Mu Epsilon,* the national mathematics honor society, *Omicron Delta Epsilon,* the international honor society in economics; *Pi Nu Epsilon,* the national honorary music fraternity; *Phi Alpha Theta,* the international history honor society; *Phi Sigma Iota,* the national foreign language honorary society; *Psi Chi,* the national honor society in psychology; *Sigma Pi Sigma,* the national physics honor society; and *Sigma Tau Delta,* the national English honor society.
The Ursinus Plan for Liberal Studies

The Educational Mission of Ursinus College

The mission of Ursinus College is to enable students to become independent, responsible and thoughtful individuals through a program of liberal education. That education prepares them to live creatively and usefully and to provide leadership for their society in an interdependent world.

Liberal education is provided through an academic program that empowers the intellect, awakens moral sensitivity, and challenges students to improve society. Students gain intellectual curiosity, the capacity to think analytically, critically, and creatively, and the skill to express thoughts with logic, clarity, and grace. Further, they develop a deepened sense of human history and an understanding of who they are as persons, what they ought to do as citizens, and how they best can appreciate the diversity and ambiguity of contemporary experience.

The Liberal Studies Curriculum

A new liberal studies curriculum is being launched in the academic year 1990-91. That curriculum, which has emerged from two years of study and a year of planning its implementation, is designed to support the mission of the College. The liberal studies curriculum is grounded in the belief that equipping students to think clearly, to analyze, to reach logical conclusions, to communicate effectively, and to have a broad understanding of the world is the best education for the changing world of the 21st century.

The curriculum is grounded on certain assumptions we hold about humankind. Individual human beings have intrinsic value. Individuals, however, are not totally independent agents; they almost always live in community with other human beings. The enduring purpose of liberal studies is to liberate the individual mind for the benefit of both the individual and the community.

Liberal education, attempts to provide students with knowledge and skills that will serve them for a life of leadership, service, and cultural enrichment. It requires a breadth of educational experiences, a disciplined study in depth, and an emphasis on developing intellectual and personal independence. Liberal education is more than a set of courses; it requires students to integrate insights of various academic disciplines, and to participate actively in the learning process.

Liberal education takes place best among students of diverse backgrounds actively searching for meaning and purpose in their lives. Students should learn to appreciate the diversity and ambiguity of their world. Thus, the College seeks to include issues of race, class, and gender across the curriculum.
Curricular Goals and Requirements

1. Introduction to the intellectual experience
The Liberal Studies Seminar is designed to introduce first year students to the intellectual life of the College and to address particular topics or issues growing out of the liberal arts curriculum.

Goal: Intensive inquiry
First year students should engage in an intensive inquiry of a topic which introduces them to the thought processes appropriate to a variety of disciplines.

Requirement:
Liberal Studies 100: Liberal Studies Seminar

2. Effective Communication
Strong basic communication skills that enable students to form and to express their thoughts with clarity, grace, and logic constitute the foundation of liberal learning. Without the ability to communicate effectively, human communities are impoverished. With it the individual is empowered and the community is enriched. Communication skills cannot be mastered in a single course; they must be reinforced and developed in experiences across the curriculum. In order to assure that students begin to develop appropriate communication skills, the following goals and requirements have been created.

Goal: Writing
In the United States, all educated men and women should have the ability to express their thoughts effectively in written English. This most fundamental skill cannot be mastered in a basic skills course or courses, but must be reinforced constantly in writing experiences across the curriculum.

Requirements:
(a) English 100, and
(b) at least one writing-intensive (W) course in the department of the student’s major.

Goal: Speaking
The ability to communicate effectively cannot be limited to written communication, but includes a command of spoken English. As with written expression, experiences in oral communication should be numerous and diverse.

Requirements:
(a) Communication Arts 201, or a competency-based exemption administered by the communication arts department, and
(b) an oral presentation within the major, either as part of a required course or in some other form to be determined by the individual major department.
Goal: Foreign language
Study of a language other than one’s own sharpens intellectual discipline, exposes the student to different cultures, values, and thought processes, and provides access to the knowledge, insights, and literature of other peoples.

Requirements:
(a) two semesters of study of a foreign language, excluding 100, or
(b) ESOL 100, if students are eligible for this course.

Goal: Quantitative data
Students should learn to interpret numerical data because much of modern society communicates through quantitative forms.

Requirement:
(a) Mathematics 241, or
(b) a quantitative (Q) course designed to provide students with experiences in the use of quantitative data.

3. Fitness and wellness
Individuals function most effectively when physically fit and lead more satisfying lives when they enjoy total wellness.

Goal: Lifetime health
Through greater knowledge of how individuals can lead healthier lives, and through the acquisition of skills to maintain physical fitness, individuals are equipped for lifetime health.

Requirements:
(a) HPER 100; and
(b) one credit of HPER activities courses.

4. Conceptual communities
Knowledge in the modern world has been fragmented. Those who seek knowledge pursue their search through modes of inquiries—methodologies—and groupings of subject matter for study—disciplines—as means of better comprehending a portion of the universe. Such groupings can be characterized as conceptual communities. An educational goal of Ursinus is to engage students with faculty members in rigorous intellectual adventures within several conceptual communities.

Goal: Awareness of historical consciousness and the individual
Developing historical consciousness, increasing one’s understanding of value systems, and defining individual identity may be achieved by study in the Western and non-Western context of art, literature, history, philosophy, religion and science over time and space.

Requirements:
(a) History 101 and 102, or Philosophy 101 and 102, or World Literature 101 and 102,
(b) one 3- or 4-credit course from: art; Communication Arts 211, 301; English 205, 206, 211, 302; music; Spanish 351; or four credits from Music 001-038.

Goal: Awareness of society and the individual
An understanding of the complexity of the human condition may be achieved by study of social organizations, and the interrelationship between society and the individual.

Requirements:
(a) Two of the following: Anthropology 100, Economics 100, Politics 100, Psychology 100, Sociology 100.
Goal: Awareness of science and society
An understanding of the fundamental impact of science on the modern world, and the issues of science as they influence the individual and society, may be achieved by study in the natural sciences and mathematics.

5. Study in depth
Through a study in depth, students should learn the modes of inquiry of an academic discipline, better understand the complex structure of knowledge, develop the ability to make informed judgements among conflicting methods of inquiry and interpretations, and acquire the ability to make connections among different disciplines.

Goal: Intensive study in an academic discipline
Study in depth is achieved in the disciplinary and interdisciplinary majors, and student-initiated majors. The following majors have been approved by the faculty:
- Anthropology and Sociology
- Applied Mathematics/Economics
- Biology
- Chemistry
- Classical Studies
- Communication Arts
- Computer Science/Mathematics
- Economics & Business Administration
- English
- French
- German
- Health, Physical Education & Recreation
- History
- International Relations
- Mathematics
- Philosophy & Religion
- Physics
- Politics
- Psychology
- Spanish

Requirements:
(a) One of the following mathematics courses: 100, 105, 108, 111, 112, 211, 241.
(b) Two of the following: Biology 100, 111, 112, 200; Chemistry 100, 111 and 111a, 112 and 112a, 200; Geology 100, 200; Physics 100, 111, 112, 200a, 200b.
6. Explorations
Because liberal education, at its core, is a broadening experience, the curriculum allows students the opportunity for exploration and reflection. Students may wish to structure their exploration in areas outside their study in depth, in which case they may pursue a minor concentration, or they may wish to enrich their experience by selecting a variety of courses.

**Goal: Enrichment through electives**
Students have the opportunity to enrich their education by exploring disciplines beyond the area of their major.

**Goal: The minor concentration**
Students have the opportunity to develop a secondary academic specialty, although a minor concentration is not required. The following minor concentrations have been approved by the faculty:
- Accounting
- Anthropology
- Art
- Astrophysics
- Athletic Training
- Biology
- Business Administration
- Chemistry
- Coaching
- Communication Arts
- Computer Science
- Creative Writing
- East Asian Studies
- Economics
- English
- Finance
- French
- German
- Greek
- Health
- History
- Human Behavioral Development
- Latin
- Latin American Studies
- Mathematics
- Music
- Neuroscience
- Pennsylvania German Studies
- Philosophy
- Physics
- Politics
- Psychology
- Religion
- Secondary Education
- Sociology
- Spanish
- Statistics
- Wellness/Fitness

**Requirement:**
Students must complete at least 128 credits for graduation. Beyond the specific College requirements and the requirements of their major, students have the opportunity to broaden their intellectual horizons by taking courses of greatest interest to them. They may wish to use their electives to better prepare for vocational or career goals. Pursuing teaching certification is one such option.

**Requirements:**
Students may elect a minor approved by the faculty, whether departmental or interdisciplinary. Students who have interests spanning more than one department may design individual minors in consultation with the chairpersons of the involved departments. Please refer to appropriate departments under Courses of Instruction for prescribed requirements in each minor program.
**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 studying subjects not in the regular college curriculum as independent students.

Students may work for no more than one semester in the department of their academic major.

In the Research Scholars’ Program, the candidate must prepare a prospectus outlining the proposed research project. Projects must be clearly inter-disciplinary in nature, and must meet the approval of the student’s academic adviser and the College Scholars’ Committee. Research scholars prepare a research paper under the supervision of a tutor; participate in two seminar meetings with the other scholars working in the same division of the program; and take an oral examination before the College Scholars’ Committee, the tutor, and, when feasible, the student’s academic adviser, and an outside authority in the student’s field. The College Scholars’ Committee will assess and grade the research paper and the oral examination.

In the Independent Study Program, the candidate must prepare a prospectus stating the subject to be studied and materials to be used. This prospectus must be approved by the student’s 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 a tutor before the end of the second full week of the semester. The student, the tutor, and the committee will then meet to determine an appropriate format for a 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 fields of concentration, subject to the following regulations:

1. To be eligible for departmental honors, students must have (a) a cumulative average of 3.0 and an average of 3.3 in all courses taken in the department in which they seek honors, based on the work of six
semesters, or (b) a cumulative average of 3.3 and an average of 3.3 in the department in which they seek honors, based on the work of the last four semesters. Students who have attended Ursinus less than four semesters must have the same grade averages as in (b), and must obtain approval of the dean of the College.

2. To be admitted to candidacy for departmental honors, students must obtain written consent of a faculty member who will serve as the project adviser, have their candidacy certified by the chairperson of the department in which they wish to pursue honors, and have the research/individual project approved by the department.

3. Students register during the spring 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 candidates receive a passing grade, they will earn credit hours toward graduation, even though their 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 a completed thesis. In order that the faculty may consider the awarding of honors, the candidate must deposit the completed thesis in bound form following the format established by the Myrin Library, the written recommendation of the 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 (3.0 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, whose approval is needed.
Upon successful completion of the major requirements so specified, the student will graduate in the subject field specified on the program proposal.

Internships
In most departments, students may pursue off-campus internships. These are an academic/work experience under the supervision of an academic adviser and an on-site supervisor.

Juniors and seniors, who have demonstrated responsibility, independence and maturity, and who have a minimum of nine credits in the area of the internship, are eligible. An internship involves at least eight to 12 hours per week for one semester at a job site, but specific details must be defined in consultation with the internship adviser. Internships carry three or four credits, depending on the department. Students may receive credit for only one internship. Internships are graded in the same manner as any other course; the grades are based primarily on reading, job performance, and a paper.

Any student engaged in an internship must have a faculty internship adviser who will make on-site visits and grade the project.

The primary responsibility for initiating an internship lies with the students. Students must define the educational objectives of the internship, provide a description of the project, a reading list, and get written approval from the on-site supervisor and from the faculty internship adviser. If the students meet the College and departmental requirements and have the approval of a faculty internship adviser, they file a written internship agreement with the department internship coordinator and with the dean’s office, and register under the appropriate course number.

Interested students should contact the internship coordinator or chairperson in the appropriate departments.

Washington Semester
Ursinus is one of more than 200 institutions participating in the Washington Semester Program, a cooperative arrangement conducted by American University in Washington, D.C. The program offers several specializations, including the American Politics Semester, the Economic Policy Semester, the Justice Semester, the Foreign Policy Semester, the Journalism Semester, and the Art and Architecture Semester. These programs give selected juniors and seniors an opportunity to work with people and resources in the nation’s capital so as to understand better the dynamics of American politics and policymaking.
Under the direction of full-time faculty from American University, students participate in seminars with governmental officials, lobbyists, and media representatives; they arrange an internship with one of the three branches of the national government, political parties, interest groups, research organizations, or the media; and they may complete a major research project on a current issue or policy problem. To be competitive candidates for selection, students should have a firm grounding in the area they wish to study.

Interested students should contact Dr. Fitzpatrick (Politics).

**Capital Semester**
The Capital Semester Internship is sponsored by the Pennsylvania Department of Education and the Office of Administration. It offers juniors and seniors who are Pennsylvania residents an opportunity to apply classroom knowledge in internships in state government-related agencies in Harrisburg. Placements are available in a wide variety of fields, including accounting, business, communications, education, health, law, public welfare, and taxation.

In consultation with a faculty adviser, participating students prepare a substantial reading list and detailed outline of a major research project to which the reading would be directed. The project, researched at the internship site, is presented to the faculty adviser by means of a major paper. In addition, students are required to maintain a journal and to participate in a series of seminars at their placement sites.

Interested students should contact Dr. Fitzpatrick (Politics).

**Philadelphia Urban Semester**
The Philadelphia Urban Semester is an interdisciplinary liberal arts program offering qualified sophomores, juniors, and seniors experiential as well as academic learning within an urban setting. Operated by the Great Lakes College Association, a consortium of 12 liberal arts colleges, the program helps students identify areas of personal, professional, and educational interest while developing independent living skills and an understanding of urban life.

In consultation with the program’s full-time faculty, students participate in an array of courses and seminars and select a supervised field placement from a list of more than 500 involving the arts, business, communications, education, health care, law, politics, and social work. The internship provides the foundation for a substantial research project. Colloquia, workshops, and field trips are also available, as are lectures, conferences, and other special events in the city.

Interested students should contact Dr. Fitzpatrick (Politics).
Critical Languages Program

Highly motivated students interested in doing work in languages not currently offered in the regular curriculum are advised to investigate the opportunity for such study through College Scholars or the Critical Languages Program. In the Critical Languages Program initial emphasis is on the spoken language. As the student progresses, skill in reading and writing is also developed. The program requires 12 to 14 hours per week of self-instruction, using tape recorded materials coordinated with the text, and a minimum of two hours per week of small group tutorial sessions with a native speaker of the language. At the end of each term, an outside specialist examines the student and evaluates the work covered during the semester. Each course carries three credits. Ursinus College is a member of the National Association of Self-Instructional Language Programs. Students who are interested in the program and who successfully have studied another foreign language should consult the head of the modern language department.

Summer Study Abroad

Ursinus offers summer programs in Japan and Mexico. The program in Japan, which runs from mid-May to mid-June, is offered in collaboration with Tohoku Gakuin University in Sendai, Japan. Students live with families while studying at the university and have an opportunity to visit Hiroshima and Tokyo. The program in Mexico takes place in August and includes a homestay in Cuernavaca and travel to Puebla, Guadalajara and Mexico City. Both programs are led by Ursinus faculty.
The system used in numbering courses reflects in general the year of College in which many students schedule a course. Thus a course taken normally in the first year will begin with the number 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 prerequisite 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. Summer School offerings are not announced in this catalog, but as far as possible, courses will be offered to meet the needs of students who register for the Summer School. Courses whose numbers are followed by a "W" are writing-intensive courses. Courses whose numbers are followed by a "Q" are those which involve quantitative analysis.

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.

ANTHROPOLOGY AND SOCIOLOGY
Associate Professor Gallagher (Chairperson); Assistant Professor Oboler.

Anthropology and Sociology are related disciplines. Both are interested in the social life of groups. Many of the differences that exist between these two disciplines are the result of the original focus of anthropology on non-Western, generally small societies and the primary emphasis of sociology on our own society, which is large and steeped in Western European tradition. Anthropology’s concentration on small, non-Western societies encouraged a reliance on participant observation as a research tool, while sociology’s interest in our own society required a statistical approach to collecting data. Today there are scholars in both disciplines using a wide variety of research tools resulting in an overlapping of the methods of these two disciplines. Because of the intrinsic relationship between anthropology and sociology, many of our courses will attempt to integrate the material
from these two disciplines. We believe that our integration of the disciplines will permit students to understand human behavior better, because they will see the variety of solutions that different societies have developed to resolve human problems, rather than simply analyze our own society.

Requirements for Majors
All students majoring in anthropology and sociology must take Anthropology 100 or Sociology 100; Anthropology/Sociology 300 (Methods); Anthropology/Sociology 400W (History and Theories); Anthropology/Sociology 460 (Seminar); four additional courses, at least two of which must be at the 200 level or above; and choose an emphasis in either anthropology or sociology. In addition, all majors are required to take Mathematics 241 (Statistics I).

I. Anthropology Emphasis
Students choosing the anthropology emphasis must take a minimum of 32 semester hours in anthropology and sociology, including either two ethnography courses (chosen from Anthropology 221, 232, 242 and Sociology 155,) or one ethnography course and Anthropology 451, research, with a focus on physical anthropology and prehistoric archaeology. English 214, linguistics and modern grammar, may be taken by students with an anthropology emphasis as credit towards the major. In addition, it is recommended that anthropology majors fulfill their science requirement in biology, and that they choose one of the Area Studies minors offered at Ursinus. (East Asian Studies or Latin American Studies).

II. Sociology Emphasis
Students choosing the sociology emphasis must take a minimum of 32 semester hours in anthropology and sociology. Psychology 440, Social Psychology, may be taken by students with a sociology emphasis as credit towards the major. In addition, four credit hours in psychology are required. It is highly recommended that students choosing the sociology emphasis should take courses which will give them a broad insight into Western thought. Thus history, philosophy, and literature electives are encouraged.

For those interested in teaching, students and their advisers should consult the education department booklet, *Ursinus College Teacher Education Programs*.

Requirements for Minors
The Department of Anthropology and Sociology offers minors in both anthropology and sociology. All students minoring in the department must choose to complete the minor either in anthropology or in sociology.
I. Anthropology Minor
A minor in anthropology requires that students take a minimum of 16 semester hours in anthropology. These courses must include Anthropology 100 (Sociology 100 may be substituted) and one of the ethnography courses (Anthropology 221, 232, 242 or Sociology 155,) and at least one of the two remaining required courses must be at the 200 level or above. [Note: With the possible exception of Sociology 100, courses for the minor must be selected either from the list of anthropology courses or the list of integrated anthropology/sociology courses. They may not include courses from the list of sociology courses.]

II. Sociology Minor
A minor in sociology requires that students take a minimum of 16 semester hours in sociology. These courses must include Sociology 100 (Anthropology 100 may be substituted) and Sociology 345, and at least one of the last two courses must be taken at the 200 level or above.
[Note: With the possible exception of Anthropology 100, courses for the minor must be selected either from the list of sociology courses or the list of integrated anthropology/sociology courses. They may not include courses from the list of anthropology courses.]

ANTHROPOLOGY AND SOCIOLOGY
Because of the close relationship between anthropology and sociology, and the large amount of substantive overlap, the department has decided to avoid redundancy by offering topically organized courses including materials from both disciplines.

ANSO-226. Marriage, the Family and Kinship Dr. Gallagher
This is an integrated course which looks at marriage, the family and kinship as vital components of social life in all societies. Marriage, the family and kinship are fundamental aspects of social life in non-Western societies (both small and large) as well as in our own society. The goal of this course is to look at marriage customs, mate selection, divorce, child bearing, parenting, gender and sex roles, and the like, from a global perspective so that students can better understand the range of possibilities that exist in organizing human society, and in order to better understand these institutions in our own society. This course is offered in the fall semester of odd numbered years.
Prerequisites: Any 100 level course in anthropology and sociology or written permission of the instructor. Four hours per week. Four semester hours.

ANSO-235. Religion as a Social System Dr. Gallagher
Religion is a significant social force in most societies. In this course we will analyze the role of religion in reinforcing beliefs, in contributing to social stability, and in advocating change. We will analyze religion in small, non-Western societies, in large non-Western societies, as well as in our own society. This course is offered in the spring semester of odd numbered years. Prerequisite: Any 100 level course in Anthropology and Sociology or written permission of the instructor. Four hours per week. Four semester hours.
ANSO-262. Gender, Culture, and Society  
Dr. Oboler

The structure of sex and gender roles has important implications for the social system as a whole. After discussion of the nature of sex differences and the origins of gender roles, the roles of women and men and relations between the sexes are reviewed for a variety of world cultures. Factors which may help explain cross-cultural differences and regularities in sex/gender roles are examined. The focus then shifts to the modern American sex/gender role system: socialization, economic and family roles, sexual inequality, and gender-based public policy issues. This course is offered in the fall semester of even numbered years. Prerequisite: Any 100 level course in anthropology and sociology or written permission of the instructor. Four hours per week. Four semester hours.

ANSO-265. Social Aspects of Aging  
Dr. Oboler

The cultural definition of the life cycle, social aspects of aging, and social problems that primarily affect the later years are major course topics. After considering historical and cross-cultural variations in age-roles, modern American society is analyzed in depth. Issues addressed include biological and psychological processes of aging, work and retirement, family and friendship links, social inequality and ageism, roles in political and religious institutions, economic problems, housing, transportation and services for the elderly, health, illness and death. International perspectives on aging and the implications of the changing age structure of the population for the larger society are also discussed. This course is offered in the fall semester of odd numbered years. Prerequisite: any 100 level course in anthropology and sociology, or written permission of the instructor. Four hours per week. Four semester hours.

ANSO-300. Methods in Anthropology and Sociology  
Dr. Gallagher and Dr. Oboler

An introduction to data collection, analysis and interpretation in anthropology and sociology. Students will be exposed to a wide variety of data collection techniques including participant observation, interviews, questionnaires, existing source studies, and the like. Students will also learn how to analyze and interpret the data with the aid of statistics. Ultimately we will examine the relationship between research and theory. This course is offered in the fall semester of even numbered years. Prerequisite: Any 100 level course in anthropology and sociology, at least one 200 level course in anthropology and sociology, and Mathematics 241, or written permission of the instructor. Four hours per week. Four semester hours.

ANSO-381. Anthropology and Sociology Internship  
Staff

An off-campus academic/work experience under the supervision of an internship adviser and an on-site supervisor. Contact any member of the department for further information. Prerequisite: A major in anthropology and sociology, junior standing, at least 12 credits in anthropology/sociology, and approval of the faculty internship adviser. Twelve to 16 hour per week. Four semester hours.

ANSO-400W. History and Theories of Anthropology and Sociology  
Dr. Gallagher and Dr. Oboler

A study of anthropology and sociology within the framework of Western thought. An analysis of the development of anthropological and sociological theory from the 19th century until today. This course is offered in the spring semester of even numbered years. Prerequisites: Anthropology 100 or Sociology 100, and Anthropology/ Sociology 300. Four hours per week. Four semester hours.

ANSO-460. Seminar in Anthropology and Sociology  
Staff

Seminar is the capstone course in the department of anthropology and sociology. As such it will require that students choose a significant problem that is faced by our society, and using data from anthropology and sociology, as well as information from related disciplines, take an in-depth look at some significant issue. Students will also be required to report their findings in a major paper, and to report their results orally to the other members of the seminar. The topic of
ANTHROPOLOGY

Anthropology is by definition and scope an interdisciplinary subject which addresses itself holistically to the study of people from many places and many periods of time. Anthropology encompasses four distinct but interconnected subfields 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 appreciate our own value system more fully through an exposure to the systems of others.

ANTH-100. Introduction to Sociocultural Anthropology Dr. Gallagher
Sociocultural anthropology is one of four subfields in anthropology. This course will emphasize sociocultural anthropology but will also briefly look at the other subfields, physical, prehistoric archaeology, and linguistics. Our main focus will be placed on family patterns, kinship relationships, political organization, economic systems, religion, the arts, and social change. This course is offered every semester. Prerequisites: None. Four hours per week. Four semester hours.

ANTH-162. People and Their Environment Dr. Oboler
Human cultural patterns and social institutions are adaptations to particular physical and social environments. People and Their Environment is concerned with the relationship between environment and subsistence systems on the one hand and social/political institutions and belief systems on the other. In this course we will focus on case studies taken from a wide variety of traditional world cultures. This course is offered in the spring semester of odd numbered years. Prerequisite: None. Four hours per week. Four semester hours.

ANTH-221. Peoples of the Americas Dr. Gallagher and Dr. Oboler
Peoples of the Americas is divided into two sections, North American Indians and Peoples of the Latin America. North American Indians is an examination of various native American cultures north of Mexico. Emphasis will be placed upon social and political organization, religion and value systems, and acculturation. Peoples of Latin America provides an overview of cultures and institutions of the prehistoric, historic, and contemporary populations of South and Central 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: Any 100 level course in anthropology or anthropology / sociology or written permission of the instructor. Four hours per week. Four semester hours.

ANTH-232. Peoples of the Pacific and East Asia Dr. Gallagher
Peoples of the Pacific is a study of the indigenous societies of Australia, Melanesia, Micronesia, and Polynesia as well as an analysis of several Pacific rim societies with major emphasis on Japan and Southeast Asia. Our focus will be social and political organization, religion, art, and changes resulting from European contact. This course is offered in the spring semester of odd numbered years. Prerequisite: Any 100 level course in anthropology or anthropology / sociology. Four hours per week. Four semester hours.

ANTH-242. Peoples of Africa Dr. Oboler
The African continent south of the Sahara is a complex array of cultures. This course will
introduce students to Sub-Saharan Africa, by emphasizing both the tremendous diversity of African cultures and the unifying themes that distinguish Africa as a cultural area. Topics include history of human settlement and population migrations; social, political, and economic organization; traditional and contemporary religion and belief systems; the impact of European colonization; and contemporary social change. The special case of South Africa receives in-depth attention at the end. This course is offered in the spring semester of even numbered years.

Prerequisite: Any 100 level course in anthropology or anthropology/sociology. Four hours per week. Four semester hours.

ANTH-351. Topics in Anthropology
An occasional course which will focus on special topics in anthropology. This course is offered as needed. Prerequisites: Any 100 level course in anthropology and sociology or written permission of the instructor. Four hours per week. Four semester hours.

ANTH-371. Readings in Anthropology
Readings in anthropology is a directed reading course in which a student can further develop an interest he or she began in a course, or can explore an interest in the field for which we do not provide a course. In order to register for readings, a student must have a clear goal, must present a bibliography to the faculty member who will be supervising the readings course, and the work will be demonstrated. Prerequisite: A student must be a major in anthropology and sociology, must have attained at least junior status, and have completed at least five courses toward the major. Six to eight hours of reading per week. Two semester hours.

ANTH-372. Readings in Anthropology II
A continuation of Anthropology 371. Prerequisite: A student must be a major in anthropology and sociology, must have attained at least junior status, have completed at least five courses toward the major, and have completed Anthropology 371. Six to eight hours of reading per week. Two semester hours.

ANTH-390. Research
Research involves directed readings and research on an anthropological topic. A student wishing to register for this course must present to the instructor a proposal outlining the research to be completed. The proposal must be approved by the instructor prior to registration. The student must meet with the instructor at regular intervals during the semester, and must submit frequent written progress reports. A final paper will be required. Prerequisites: Anthropology 100, two 200 level anthropology courses, and written permission of the instructor. Four semester hours.

ANTH-491. Research/Independent Work
This course is open to candidates for departmental honors and to other students with the permission of the department chair. Prerequisites: a minimum of 8 semester hours of 300 or 400 level courses and the permission of the department chair. Four semester hours.

ANTH-492. Research/Independent Work
A continuation of course 491. Prerequisites: Anthropology 491 and permission of the department chair. Four semester hours.
SOCIETY
Sociology is concerned with the analysis of social life. It is the goal of the department 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.

SOC-100. Introduction to Sociology
Dr. Oboler
Designed to introduce students to the discipline of sociology, this course emphasizes basic sociological concepts and their applications to various real-life social situations. Topics discussed include society, culture, social groups, interaction, deviance, social stratification, gender roles, race relations, population, urbanization, social change, and social institutions, particularly religion and the family. This course is offered every semester. Four hours per week. Four semester hours.

SOC-155. American Ethnic Groups
Dr. Oboler
This course focuses on ethnic patterns of community social life in urban, suburban, and rural settings. It explores the range and diversity of American ethnic subcultures. It also studies the processes of assimilation and diversification of ethnic groups in the national political, economic and cultural framework. This course is offered in the spring semester each year. Prerequisites: None. Four hours per week. Four semester hours.

SOC-175. Social Problems
Dr. Gallagher
Many societal problems have broad historical and/or social implications. In this course we will analyze a number of these problems including poverty, racial and ethnic discrimination, sexual discrimination, illness and medical care, the changing family, environmental crises, abortion, terrorism, and war. This course is offered in the fall semester of odd numbered years. Prerequisite: None. Four hours per week. Four semester hours.

SOC-195. Sociology of Medicine
Dr. Gallagher
An exploration of various aspects of the health care system. We will focus on views of illness and disability, patients, doctors, hospitals, and the interaction between these elements as they are influenced by and influence society. This course is offered in the fall semester of even numbered years. Prerequisite: None. Four hours per week. Four semester hours.

SOC-345. Social Stratification
Dr. Oboler
An analysis of the bases and perpetuation of social inequalities, including class, race, gender and other forms of inequality. Theories of causes of stratification and problems of measuring different levels of wealth, power and prestige are examined. Consideration of how social inequality is structured in non-industrial societies precedes emphasis on the nature of social inequality in the United States. Cross-national comparisons of social stratification in modern industrial societies are also made. This course is offered in the fall semester of odd numbered years. Prerequisite: Any 100 level course in anthropology and sociology or written permission of the instructor. Four hours per week. Four semester hours.

SOC-360. Topics in Sociology
Staff
An occasional course which will focus on special topics in sociology. This course is offered as needed. Prerequisites: Any 100 level course in anthropology and sociology, and at least one 200 level sociology course. Four hours per week. Four semester hours.

SOC-375. Readings in Sociology
Staff
Readings in sociology is a directed reading course in which a student can further develop an interest he or she began in a course, or can explore an interest in a field in which we do not provide a course. In order to register for readings, a student must have a clear goal, must present a bibliography to the faculty member who will be supervising the readings course, and the work will be demonstrated. Prerequisites: A student must be a major in
anthropology and sociology, must have attained at least junior status, and have completed at least five courses toward the major. Six to eight hours of reading per week. Two semester hours.

SOC–376. Readings in Sociology II. Staff
A continuation of Sociology 375. Prerequisites: A student must be a major in anthropology and sociology, must have attained at least junior status, have completed at least five courses toward the major, and have completed Sociology 375. Six to eight hours of reading per week. Two semester hours.

SOC–391. Research Staff
Research involves directed readings and research on a sociological topic. A student wishing to register for this course must present to the instructor a proposal outlining the research to be completed. The proposal must be approved by the instructor prior to registration. The student must meet with the instructor at regular intervals during the semester, and must submit frequent written progress reports. A final paper will be required. Prerequisite: Any 100 level course in anthropology and sociology or written permission of the instructor. Four semester hours.

SOC–491. Research/Independent Work Staff
This course is open to candidates for departmental honors and to other students with the permission of the department chair. Prerequisites: a minimum of 8 semester hours of 300 or 400 level courses and the permission of the department chair. Four semester hours.

SOC–492. Research/Independent Work Staff
A continuation of course 491. Prerequisites: Sociology 491 and permission of the department chair. Four semester hours.

Applied Mathematics/Economics
See Combined Majors

ART
Professor Visser; Associate Professor Xaras; Adjunct Professor Barnes

Students in a college of liberal education should gain an acquaintance with and an understanding of the creative arts in the broad cultural and intellectual context of Western civilization. Courses are offered in both art history and in studio art.

Minor in Art
A minor concentration in art consists of 20 credits in art.

ART–100. Introduction to Art Staff
The course provides an introduction to the principal elements of the visual arts, including architecture. The purpose of the course is to provide a foundation for an understanding of the visual arts. The approach will be topical, drawing from the spectrum of Western and non-Western art. Intended for freshmen and sophomores. Three hours per week. Three semester hours.

ART–201. Introduction to Studio Art I Mr. Xaras
The course introduces students to the two-dimensional media, including principles of line, shape, color and composition and experience in drawing and painting. Students are expected to develop a portfolio of work outside the class meetings. Enrollment limit of 18. Intended for freshmen and sophomores. Three hours per week plus extensive individual work. Four semester hours.

ART–202. Introduction to Studio Art II Mr. Xaras
This course is a continuation of Studio Art I, in which students develop their creative
ability in two-dimensional media. Students are expected to continue developing their talents and techniques outside class. Enrollment limit of 18. Prerequisite: Art 201, or permission of instructor based on portfolio. Three hours per week plus extensive individual work. *Four semester hours.*

**ART-203. Introduction to Drawing and Painting**  
Mr. Xaras  
This course offers an opportunity to develop creative ability using two-dimensional media. Open to all students. This course will not be offered after 1992-93. Enrollment limit of 18. Three hours per week. *Three semester hours.*

**ART-301. Drawing**  
Mr. Xaras  
Sustained studio work exploring traditional and modern procedural and conceptual expression using pencil and charcoal. Students must develop their techniques in significant independent work beyond the contact hours. Prerequisite: Art 202 or permission of instructor based on portfolio. Enrollment limit of 18. Three hours per week. *Four semester hours.*

**ART-302. Painting**  
Mr. Xaras  
Sustained studio work exploring traditional and modern procedural and conceptual expression in various painting media. Students must develop their techniques in significant independent work beyond the contact hours. Prerequisite: Art 202 or permission of instructor based on portfolio. Enrollment limit of 18. Three hours per week. *Four semester hours.*

**ART-311. History of Art I: Ancient Through Renaissance**  
Dr. Visser  
An introduction to the history of architecture, sculpture, and painting through the Renaissance, presented by means of illustrated lectures and museum trips. Three hours per week. *Four semester hours.*

**ART-312. History of Art II: Renaissance to Impressionism**  
Dr. Visser  
An introduction to the history of Western architecture, sculpture and painting from the Renaissance to French Impressionism. Three hours per week. *Four semester hours.*

**ART-313. History of Art III: Post-Impressionism**  
Ms. Barnes  
An introduction to the history of Western art from the nineteenth century to the present. Three hours per week. *Four semester hours.*

**ART-401. Special Projects in Fine Art**  
Staff  
Advanced independent work on a creative project approved and supervised by a faculty adviser. Prerequisite: a juried portfolio or other creative works. *Four semester hours.*

**ART-414W. Seminar in the History of Art**  
Staff  
In the course, students will develop research criteria and techniques, using museum and library resources, in topics in a specific era of art history. Prerequisites: Art 311, or 312 or 313 or permission of instructor. Three hours per week. *Four semester hours.*

**ART-491. Research/Independent Work**  
Staff  
This course is open to candidates for departmental honors and to other students, with the permission of the instructor. *Four semester hours.*

**ART-492. Research/Independent Work**  
Staff  
A continuation of Art 491. Prerequisite: Art 491. *Four semester hours.*

*Not offered in 1990-1991.*
BIOLOGY

Professors Allen, Sidie, Small (Chairperson); Associate Professors Fields, Shinehouse; Assistant Professors E. Dawley, R. Dawley, Hughes; Lecturer Whittaker

The underlying philosophy of the departmental curriculum is to provide a balanced and current biological education within the broader context of the liberal arts. The curriculum has been designed to keep pace with new developments in the field and to afford students as broad a base as possible for understanding the principles governing life processes.

Course work provides a firm foundation of knowledge in the various sub-disciplines, fosters the scientific attitude, and familiarizes students with current research methods. A capstone course, coupled with oral and written experiences within the department, helps to develop and reinforce the ability to think clearly, critically and independently. In the junior and senior years students have the opportunity to pursue an independent project, which may include research with a faculty mentor.

Successful completion of the curriculum prepares students for graduate work, for employment in a biologically oriented profession, 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.

Requirements for Majors

To fulfill the requirements of the major, all students must complete 36 semester hours of biology as outlined in the departmental core and the ancillary requirements listed below.

I. Required Courses: Biology 111Q, 112 and one of the following capstone courses: Biology 470W, 481W, 482W, 491W, 492W.

II. Distribution requirements: At least three credits must be earned in each of the following divisions:
   A. Cellular Biology: Biology 215, 216, 322, 431, 436
   B. Organismal Biology: Biology 333, 334, 371, 418
   C. Structure and Function: Biology 311, 318, 346, 422, 428

III. Electives: Chosen in accordance with the major area of interest and bringing the total to a minimum of 36 credit hours in biology.

NOTE: A maximum of 10 credit hours of research may be applied to the major.
IV. Required of all majors:
   A. Chemistry: 111, 111a, 112, 112a,
   B. Mathematics/Computer Science: Any two of the following –
      Math 111, 112, 241, 242, 271

V. Recommended to all majors:
   A. One year of Physics
   B. One year of Organic Chemistry

Requirements for Minors
A minor concentration in biology consists of Biology 111Q, 112 and
at least 12 additional elective credits in biology, exclusive of
internships or research.

Special Career Interests
I. Students seeking admission to graduate programs in biologically
related fields should note the following:
   1. A year of organic chemistry is strongly recommended.
   2. At least one additional course in chemistry is recommended.
   3. Mathematics/Computer Science 241, 242 and 271 are
      recommended.
   4. Additional course work in mathematics/computer science is
      recommended.

II. Prospective secondary school teachers whose interest is biology
and who wish to be certified in biological science should note the
following:
   1. Physics 100 is required; a year of physics is recommended.
   2. Geology 100 is recommended.
   3. Simultaneous certification in general science is highly
      recommended.
   4. It is highly recommended that prospective teachers serve at least
      one semester as departmental assistants.
   5. The curriculum beyond the first year must be arranged in
      consultation with the chairman of the department of education
      or with the departmental teacher education adviser.
   6. Students and their advisers should consult the education
      department booklet, Ursinus College Teacher Education
      Programs.

III. Students seeking admission to schools of medicine, dentistry,
veteryinary medicine, optometry and podiatry should note the
following:
   1. One year of organic chemistry and one year of general physics
      for science majors is required by all of the above schools.
   2. Many schools also require one full year of English and some
      specify one or two semesters of calculus.
3. Students and their advisers should consult the premedical handbook or one of the premedical advisers for requirements of specific schools.

IV. Students seeking admission to other health science programs, such as physical therapy, should consult the departmental allied health adviser.

V. Students who seek employment in a biologically oriented profession should note the following:
1. Mathematics 241, 242, and 271 are strongly recommended.
2. Economics and Business Administration 100 and 105 are recommended.
3. Additional course work in communication arts is recommended.
4. Additional course work in English composition is recommended.

BIO-100Q. Introduction to Biology Staff
A study, designed for the non-science major, of selected fundamental principles of the science of biology. Societal issues and current biological problems will be stressed. Two hours of lecture; two hours of laboratory and/or discussion. Three semester hours.

Note: Students who have received credit for Biology 111Q may not enroll in Biology 100Q.

BIO-111Q. General Biology Dr. Hughes
An introduction to the molecular basis of life as well as the origin and consequences of diversity in the biological world. Topics include cellular organization and function, bioenergetics, genetics, evolution and ecology. Laboratory experiments cover aspects of molecular, cellular, and genetic biology. Pre or corequisite: Chemistry 111 and 111a. Three hours of lecture; three hours of laboratory per week. Four semester hours.

BIO-112. General Biology Dr. Dawley
A continuation of Biology 111Q. Topics include bacterial and viral characteristics, plant structure and function, animal physiology and anatomy. Laboratory exercises include experiments and studies of the classification and structure of representative organisms. Prerequisite: Biology 111Q. Pre or corequisite: Chemistry 112 and 112a. Three hours of lecture; three hours of laboratory per week. Four semester hours.

NOTE: Courses BIO-111Q, 112 are the basic introductory courses required of all biology majors and of any others who are planning to meet the various preprofessional requirements in the health sciences.

BIO-200. Investigation of Biological Topics Staff
An in-depth study, for non-science majors, of one or more biological topics that illustrate the scientific method as applied to biology. Topics will be selected for relevance to humans and their place in the biosphere. Prerequisite: Biology 100Q or 111Q. Two hours of lecture; two hours of laboratory and/or discussion. Three semester hours.

BIO-205. Experimental Methods Dr. Sidie
A course in the application of experimental techniques in biology. Topics to be studied include experimental design, biostatistics, computer applications in biology and scientific literature. Prerequisites: Biology 111Q, 112. Two hours of lecture, two hours of laboratory per week. Three semester hours.

BIO-215. Genetics Dr. Fields
A survey of the basic principles of classical, molecular, 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. Three hours
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of lecture; two hours of laboratory per week. *Four semester hours.*

**BIO–216. Cell Biology Dr. Fields**

A study of the fine structure and function of prokaryotic and eukaryotic cells, with emphasis on the function of cellular organelles including the processes of respiration, photosynthesis, gene expression, and movement. Prerequisite: Biology 102, 112 or permission of the instructor. Three hours of lecture per week. *Three semester hours.*

**BIO–216a. Cell Biology Laboratory Dr. Fields**

Laboratory work related to cell biology with emphasis on physiological techniques, including isolating procedures, spectrography and chromatography. Pre or corequisite: Biology 216. Three hours per week. *One semester hour.*

**BIO–230. Marine Biology Dr. Sidie**

A field-oriented study of the important marine habitats, including pelagic and benthic zones, and intertidal communities. Topics include physical and chemical oceanography, marine plants, zooplankton, nekton, marine animals, and the marine ecosystem. Prerequisite, Biology 100, 200, or Biology 111, 112, or permission of the instructor. Lecture and field investigations. *Three semester hours.* (Course conducted at a marine field station.)

**BIO–232. Ethology Dr. Sidie**

A study of the biological basis of behavior. Topics include the neural and hormonal basis of behavior, orientation mechanisms, biological clocks, animal communication, learning, sociobiology, genetics of behavior, and the evolution of behavior. Prerequisite: Biology 112 or 200; or permission of the instructor. Three hours of lecture per week. *Three semester hours.*

**BIO–232a. Ethology Laboratory Dr. Sidie**

Experimental investigations of animal behavior. Topics studied include orientation reactions, fish schooling, circadian rhythms, electric fish, habituation, conditioning, pheromones, social behavior, sensory signals and territoriality. Pre or corequisite: Biology 232. Two hours of laboratory per week. *One semester hour.*

**BIO–292. Introduction to Research Staff**

An introduction to the nature of biological research and the research interests of members of the department. Students will undertake a library-based literature review project under the guidance of a chosen staff member. Strongly recommended for students anticipating enrollment in Biology 481W or 491W. Prerequisites: Biology 112, permission of staff supervisor. *One semester hour.*

**BIO–311. 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, and mammal. Prerequisite: Biology 112. Three hours of lecture; four hours of laboratory per week. *Four semester hours.*

**BIO–315. General Ecology Dr. Small**

Studies of the interrelationships between organisms and their environments that determine their distribution and abundance in natural systems. Aspects of energy flow, biotic and abiotic limits, population growth and community organization are considered in the context of the ecosystem. Laboratories include local field work and emphasize techniques for collecting and analyzing data. Prerequisite: Biology 112 or permission of the instructor. Two hours of lecture, three hours of laboratory per week. *Three semester hours.*

**BIO–316. Vertebrate Ecology and Adaptations Dr. Allen**

A study of the fossil history and modern diversity, life styles and adaptations of modern vertebrate animals and their interactions with one another and with the environment. Prerequisite: Biology 112 or permission of the instructor. Three hours of lecture per week. *Three semester hours.*

**BIO–317. Human Anatomy and Physiology Mrs. Shinehouse**

A study of the characteristics of cells and tissues, and the muscular, skeletal and nervous systems. Emphasis is placed on the integration of structure and function. Prerequisite: Biology 100Q or 111Q or
permission of the instructor. Three hours of lecture; two hours of laboratory per week.  
*Four semester hours.*

**BIO–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. Three hours of lecture; two hours of laboratory per week.  
*Four semester hours.*

**BIO–322. Molecular Biology**  
*Dr. Hughes*  
A survey of gene structure, transcription, translation, regulation, and replication as well as the theory underlying laboratory techniques used in their study. Prerequisite: Bio. 111Q. Biology 215 is recommended. Three hours of lecture per week.  
*Three semester hours.*

**BIO–322a. Molecular Biology Laboratory**  
*Dr. Hughes*  
Experiments involving techniques used by molecular biologists including DNA cloning, electrophoresis, DNA and protein purification and nucleic acid hybridization. Pre or corequisite: Biology 322 or permission of instructor. Three hours of laboratory per week.  
*One semester hour.*

**BIO–323. Evolution**  
*Dr. R. Dawley*  
A study of the processes of evolution, including population genetics, the formation of new species and evolutionary patterns of higher taxa through geologic time. The course will examine in detail the Neo-Darwinian theory of adaptation and natural selection as well as competing scientific explanations of evolutionary change. Prerequisite: Biology 112 or permission of the instructor. Three hours of lecture; three hours of laboratory/discussions per week.  
*Four semester hours.*

**BIO–333. Plant Diversity**  
*Dr. Fields*  
A phylogenetic survey of the major non-vascular plant groups with an accompanying comparison to the flowering plants. The course will include identification, morphology, ecology and isolation and culture techniques. Prerequisite: Biology 112. Two hours of lecture; three hours of laboratory per week.  
*Three semester hours.*

**BIO–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.*

**BIO–346. Animal Physiology**  
*Dr. Sidie*  
An investigation of the biological, chemical and physical basis of animal function. Topics studied include enzymes and energetics, permeability and transport, cellular signaling, sensory systems, motility, osmoregulation and excretion, circulation, gas exchange, feeding and absorption. Prerequisites: Biology 111Q, 112. Three hours of lecture: Three hours of laboratory per week.  
*Four semester hours.*

**BIO–350. Selected Topics in Biology**  
*Staff*  
A course offered periodically in an area of special interest to students by a staff member or a visiting lecturer. Prerequisite: permission of the instructor. Three hours per week.  
*Three semester hours.*

**BIO–371. Mammalogy**  
*Dr. E. Dawley*  
A study of vertebrate biology using the mammalian class as the case study. The course includes evolutionary history, phylogeny, diversity, structure and function, behavior and ecological aspects of mammals. Prerequisite: Biology 112 or permission of the instructor. Three hours of lecture; three hours of laboratory and field investigations per week.  
*Four semester hours.*

**BIO–381. Internship**  
*Staff*  
An off-campus academic/work experience under the supervision of an internship adviser and an on-site supervisor. Contact the chairman of the department for further details. Prerequisite: junior standing, nine credits in biology, and approval of a faculty internship adviser. Eight to 10 hours per week.  
*Three semester hours.*
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BIO-391. Directed Research  Staff
Laboratory and/or field experiences under the direction of a faculty member and designed to introduce students to fundamental research procedures and data manipulation in the context of an original research project. Prerequisites: Biology 112 and junior or senior standing; permission of a participating staff member. Three hours of laboratory per week. One semester hour.

BIO-392. Directed Research  Staff
Content as in Biology 391, but offered in the spring term. Three hours of laboratory per week. Prerequisites: Biology 112 and junior or senior standing; permission of a participating staff member. One semester hour.

BIO-418. Microbiology  Dr. Hughes
The structure, physiology, diversity, and ecology of microorganisms. Bacteria will be studied extensively, but basic principles of virology and immunology will also be discussed. The laboratory will include techniques of bacterial and bacteriophage propagation, purification, identification, and genetic experimentation. Prerequisite: Bio. 112 or permission of the instructor. Three hours of lecture; three hours of laboratory per week. Four semester hours.

BIO-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.

BIO-428. Plant Physiology  Dr. Fields
A study of 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.

BIO-431. Neurobiology  Dr. Sidie
Biophysics of excitable membranes, physiology of synapses, sensory receptors, integrative neurophysiology, neuromuscular systems, excitation-secretion coupling and the coding of neural information. Prerequisites: Physics 112, Biology 112; or permission of the instructor. Three hours of lecture; three hours of laboratory per week. Four semester hours.

BIO-436. 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 embryonic development of vertebrates. Prerequisite: Biology 215. Three hours of lecture; four hours of laboratory per week. Four semester hours.

BIO-470W. Senior Seminar  Staff
An in-depth investigation of a biological topic of current interest. Its study will involve discussions and reports based on current primary and review literature and will culminate in an independent library research project and its oral presentation. This course fulfills the capstone, oral and writing requirements within the major. Prerequisites: English 100, CA 201, senior standing, permission of the instructor. Course offered both semesters. Three semester hours.

BIO-481W. Independent Research  Staff
Laboratory or field investigation of some biological phenomenon. This original work includes library-assisted preparation of a final written thesis and the oral presentation of its results before a faculty/student colloquium. This course fulfills the capstone, oral and writing requirements within the major. Pre or co-requisites: English 100, CA 201, junior or senior standing, written consent of a staff member who will serve as research adviser. Four semester hours.

BIO-482W. Independent Research  Staff
Content as in Biology 481W, but offered in the spring term. This course fulfills the capstone, oral and writing requirements within the major. Pre or co-requisites: English 100, CA 201, junior or senior standing, written consent of a staff member who will serve as research adviser. Four semester hours.
BIO-491W. Honors Research

Content as in Biology 481W, but open only to candidates for departmental honors. This course fulfills the capstone, oral and writing requirements within the major. Prerequisites: English 100, CA 201, junior or senior standing, written consent of a staff member who will serve as research adviser. *Four semester hours.*

BIO-492W. Honors Research

Content as in Biology 481W, but offered in the spring term and open only to candidates for departmental honors. This course fulfills the capstone, oral and writing requirements within the major. Prerequisites: English 100, CA 201, junior or senior standing, written consent of a staff member who will serve as research adviser. *Four semester hours.*

BUSINESS ADMINISTRATION

See Economics and Business Administration

CHEMISTRY  
Professors Hess, Schultz (Chairperson); Associate Professors Barth, Tortorelli; Assistant Professor LoBue; Research Scholar Middleton.

The chemistry department at Ursinus College has been accredited by the American Chemical Society since 1959.

The objectives of the department are (1) to offer specialized training in chemistry, beyond the basic course, that will enable a graduate to enter a career as a professional chemist; (2) to prepare the student for graduate study; (3) to provide a strong foundation for the student planning to enter medicine, dentistry or an allied health field; (4) to prepare the student for teaching chemistry at the secondary level; (5) to provide courses which satisfy the departmental requirements for a comprehensive minor; (6) to provide a course in general chemistry which satisfies the natural science requirements of the College.

Recognizing that students have different educational objectives, the chemistry department offers several programs leading to a major. Students wishing to combine a chemistry major with a major/minor concentration in another academic department (economics, business administration, biology, physics, and others) may enroll in any one of the following programs (tracks) in accordance with their career interests.

Requirements for Majors

Track 1. Major Specialization in Chemistry

Students planning to enter the chemical industry or planning further study in chemically related areas (e.g. engineering, biochemistry, material science, and the like) may enroll in this program. This specialization consists of the following courses central to the field of chemistry: Chemistry 111/111a; 112/112a; 204; 207/207a; 208/208a; 306/306a or 311/311a; 309/309a; 310; and either 491 and 492W, or one additional lecture course, one additional laboratory course, and 400W.
Other courses necessary to complete the departmental requirements of this program are Math 111, 112 and Physics 111, 112.

Track 2. American Chemical Society Certified Major
The American Chemical Society has adopted a set of standards for undergraduate training in chemistry. Students seeking certification must complete the following courses: Chemistry 111/111a; 112/112a; 204; 207/207a; 208/208a; 306/306a or 311/311a; 309/309a; 310/310a; 401; 407a; and either 381 and 400W, or 400W and 491, or 491 and 492W.

Other courses necessary to complete the departmental requirements of this program are Math 111, 112 and Physics 111, 112.

Track 3. Specialization in Chemistry for Medical School and Allied Fields
This course of study is designed for students planning admission to professional schools in the healing arts (such as medicine and dentistry) or further study in the health-related fields. This program consists of the following courses: Chemistry 111/111a; 112/112a; 204; 207/207a; 208/208a; 306/306a or 311/311a; 309/309a; 310; 315; and either 400W, or 491 and 492W.

Other courses necessary to complete the departmental requirements of this program are Biology 111, 112; Mathematics 111, 112; and Physics 111, 112.

Track 4. Specialization in Chemistry for Science Teaching
This program satisfies the requirements for secondary school certification in chemistry as established by the Commonwealth of Pennsylvania. Students seeking certification should enroll in the following: Chemistry 111/111a; 112/112a; 204; 207/207a; 208/208a; 306/306a or 311/311a; 309/309a; and 400W.

Other courses necessary are Biology 111; Math 111, 112; Physics 111, 112; and the prescribed education courses. A course in geology is recommended. Prospective teachers should serve as laboratory assistants or participate in training. Prospective student teachers must have a 75.00 (2.00) average in chemistry and receive a departmental recommendation which considers, in addition to academic performance, the student's interpersonal and communication skills. Students and their advisers should consult the education department booklet, *Ursinus College Teacher Education Programs*.

Requirements for Minors
A minor concentration in chemistry consists of Chemistry 111/111a; 112/112a; 207/207a; 208/208a; 306/306a or 311/311a; and one course at the 300 level.
CHEM-100Q. The Science of Chemistry  
Staff  
A study of the essential nature of chemistry, emphasizing basic chemical principles and applications. Topics may include atomic structure, bonding, the production and utilization of energy, and oxidation-reduction. Societal and historical perspectives are introduced by way of assignments from the popular literature. Three hours of lecture and three hours of laboratory per week. *Four semester hours.*

Note: A student who has received credit for Chemistry 111 may not enroll in Chemistry 100Q. This course does not count as elective credit in chemistry.

CHEM-111. Principles of Chemistry  
Dr. Schultz  
A study of the fundamental theories and laws of chemistry. Topics include molecular structure, bonding theories, states of matter, solution properties, and thermodynamics. This course includes work in the mathematical solution of chemical problems. This course must be taken concurrently with Chemistry 111a.* Three hours of lecture per week plus one hour of recitation per week at the discretion of the instructor. *Three semester hours.*

CHEM-111aQ. Principles of Chemistry Lab  
Miss Barth, Staff  
Laboratory work related to Chemistry 111. Experimental work includes the preparation and reaction of gases, the verification of the stoichiometric relationship between reactants and products, and titrations involving neutralization and redox reactions. This course must be taken concurrently with Chemistry 111.* Three hours per week. *One semester hour.*

CHEM-112. Inorganic Chemistry  
Dr. Schultz  
A study of the physical and chemical properties of inorganic materials. Topics include chemical equilibria, pH, electrochemistry, nuclear chemistry, and kinetics. This course must be taken concurrently with Chemistry 112a.* Prerequisite: Chemistry 111. Three hours of lecture per week plus one hour of recitation per week at the discretion of the instructor. *Three semester hours.*

CHEM-112a. Inorganic Chemistry Lab  
Staff  
Laboratory work related to Chemistry 112. Experimental work includes chemical equilibrium, pH, quantitative colorimetric analysis, and qualitative analysis of common cations and anions. This course must be taken concurrently with Chemistry 112.* Prerequisite: Chemistry 111a. Three hours per week. *One semester hour.*

CHEM-200. Topics in Chemistry  
Staff  
A course that examines the impact of chemistry on society. Topics such as plastics, drugs, pollution, food chemistry, and forensic science are considered. Prerequisite: Chemistry 100 or 111. Three hours of lecture and three hours of laboratory per week. *Four semester hours.*

Note: A student who has received credit for Chemistry 112 may not enroll in Chemistry 200. This course does not count as elective credit in chemistry.

CHEM-204. Chemical Information Science  
Dr. Tortorelli  
The use of major literature sources in the field of chemistry and introduction to on-line information systems. Prerequisite: Chemistry 207. Two hours per week. *Two semester hours.*

*A student who repeats this course need not also repeat its companion lecture or lab.*
CHEM-207. Organic Chemistry  
Dr. Hess
A study of the physical and chemical properties of the important classes of organic compounds within the context of modern structural theory. Areas emphasized are chemical bonding, acidity and basicity in organic systems, stereochemistry, spectrometric methods of analysis, and reaction mechanisms. This course must be taken concurrently with Chemistry 207a.* Prerequisite: Chemistry 112. Three hours per week. Three semester hours.

CHEM-207a. Laboratory in Organic Chemistry  
Staff
Laboratory work related to Chemistry 207: chromatography, distillation, extraction, infrared spectroscopy, and recrystallization. Experimental work includes measurement of physical properties, study of reaction kinetics, and synthesis. This course must be taken concurrently with Chemistry 207a. Prerequisite: Chemistry 112a. Three hours per week. One semester hour.

CHEM-208. Organic Chemistry  
Dr. Hess
A continuation of Chemistry 207. Particular emphasis is placed on structure-reactivity relationships and synthesis. Other topics include aromaticity, nuclear magnetic resonance spectroscopy, the chemistry of the carbonyl group, and polymerization. This course must be taken concurrently with Chemistry 208a.* Prerequisite: Chemistry 207. Three hours per week. Three semester hours.

CHEM-208a. Laboratory in Organic Chemistry  
Staff
Laboratory work related to Chemistry 208; a continuation of 207a. This course must be taken concurrently with Chemistry 208.* Prerequisite: Chemistry 207a. Three hours per week. One semester hour.

CHEM-306. Instrumental Analysis  
Miss Barth
A study of the theory and application of modern instrumental analysis. Topics may include electrochemistry, spectroscopy, and chromatography. Prerequisites: Chemistry 208 and Physics 112. Three hours per week. Three semester hours.

CHEM-306a. Laboratory in Instrumental Analysis  
Miss Barth
Laboratory work related to Chemistry 306. This course must be taken concurrently with Chemistry 306. Three hours per week. One semester hour.

CHEM-309. Physical Chemistry  
Dr. LoBue
An introduction to chemical thermodynamics and kinetics. Prerequisites: Chemistry 112, Math 112, and Physics 112. Three hours per week. Three semester hours.

CHEM-309a. Laboratory in Physical Chemistry  
Dr. LoBue
Laboratory work related to Chemistry 309. Prerequisite: Chemistry 309 (or concurrently). Three hours per week. One semester hour.

CHEM-310. Physical Chemistry  
Dr. LoBue
An introduction to the study of molecular structure and statistical thermodynamics. Prerequisite: Chemistry 309. Three hours per week. Three semester hours.

CHEM-310a. Laboratory in Physical Chemistry  
Dr. LoBue
Laboratory work related to Chemistry 310. Prerequisite: Chemistry 310 (or concurrently). Three hours per week. One semester hour.

CHEM-311. Spectrometric Methods  
Dr. Tortorelli
The theory and application of modern spectrometric methods of chemical analysis. Prerequisite: Chemistry 208. Three hours per week. Three semester hours.

*A student who repeats this course need not also repeat the companion lecture or lab.
CHEM-311a. Laboratory in Spectrometric Methods
Dr. Tortorelli
Identification of chemical compounds using complementary spectrometric methods. Prerequisite: Chemistry 311 (or concurrently). Three hours per week. One semester hour.

CHEM-315. Biochemistry
Dr. Tortorelli
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. Prerequisite: Chemistry 208. Three hours per week. Three semester hours.

CHEM-350. Selected Topics in Chemistry
Staff
A course offered periodically dealing with topics of current interest to faculty and students. Prerequisite: Chemistry 208. Three hours per week. Three semester hours.

CHEM-381. Internship
Staff
A laboratory project in cooperation with industry at an industrial site involving a minimum of 10 hours per week for one semester or four weeks of full-time work. Before beginning the internship the student must submit a proposal that has been approved by both the chemistry faculty and the on-site supervisor. Upon completion of the work a written report detailing the complete scope and results of the project must be submitted to the department. Prerequisites: Chemistry 208, 208a. Three semester hours.

CHEM-400W. Seminar
Staff
The composition and presentation of a seminar and a review paper on a topic of interest to the chemical community. Emphasis is placed on acquiring skills needed for oral and written presentation of scientific material. Prerequisites: Chemistry 204, 208, and 309 (or concurrently); Communication Arts 201; English 100. Three hours per week. Three semester hours.

CHEM-401. Structure and Bonding of Chemical Compounds
Staff
A study of bonding theories, applications of group theory, molecular spectroscopy, and the stereochemistry of chemical compounds. Prerequisite: Chemistry 309 (or concurrently). Three hours per week. Three semester hours.

CHEM-407a. Advanced Inorganic Laboratory
Staff
Synthesis and characterization of inorganic and organometallic compounds using advanced techniques. Prerequisite: Chemistry 401 (or concurrently). Three hours per week. One semester hour.

CHEM-412. Polymer Chemistry
Dr. Schultz
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. Prerequisites: Chemistry 208 and 309. Three hours per week. Three semester hours.

CHEM-491. Research/Independent Work
Dr. Middleton, Staff
Independent laboratory and library investigation in an area of chemistry, with oral progress reports to the department faculty and a written research report. Written consent of the research adviser and the Department, at the time of registration, is required. Prerequisites or concurrently: Chemistry 204, 208, 208a, and 306a or 309a or 311a. Nine hours per week. Three semester hours.

CHEM-492W. Research/Independent Work
Dr. Middleton, Staff
A continuation of Chemistry 491, with a final seminar and thesis describing research work. Emphasis is placed on oral and written presentation of scientific research, as well as advanced laboratory techniques. Prerequisites: Chemistry 491, Communication Arts 201, English 100. Nine hours of laboratory and one hour of lecture per week. Four semester hours.

Departmental Honors in Chemistry
Students successfully completing Chemistry 491, 492W may be awarded honors in chemistry, but no additional credit will be granted. Description of the honors program, including qualifications, is detailed in this catalog.
CLASSICAL STUDIES

Professor Wickersham (Chairperson)

Courses in the department classical studies are intended to develop reading ability in ancient Greek and Latin, and to introduce the student to the major forms and themes of classical literature and culture. They enhance general linguistic facility and give the student direct access to the original documents and foundations of Western civilization.

Requirements for Majors

General Coursework. Majors must take at least 16 semester hours in Greek, and 16 semester hours in Latin above Latin 100. Majors must include among their electives eight semester hours in some other language and also elect at least 12 semester hours from the following major-related courses: English 321, 326 (classics in translation), 214 (linguistics); Anthropology 100 (sociocultural anthropology); History 101, 102 (world history), 251 (ancient history); Art 311-313 (history of art); Philosophy 101, 102 (history of philosophy), 103 (general problems of philosophy), 301 (logic); World Literature 101, 102. Other courses not mentioned may be counted as major-related with the approval of the department.

Oral Presentation. This requirement may be satisfied by a special assignment in any ordinary course in the department at the 300 or 400 level. When registering, the candidate shall announce his or her intention to fulfill this requirement in said course; this intention shall be recorded by a letter written by the candidate and placed in the candidate’s file. The candidate shall consult with the instructor and arrange that one class-hour in the 12th week of the course be devoted to the oral presentation and discussion thereof. The presentation must be no less than 15 and no more than 20 minutes in length. The instructor shall evaluate the presentation with attention to content and delivery. The evaluation shall show whether or not the candidate has satisfied the requirement; the instructor shall record the result by writing a letter to be placed in the candidate’s file, with a copy thereof to be given to the department.

Writing-Intensive Course. This requirement may be satisfied by the following courses: Greek 401W, 491W; Latin 401W, 491W. The 491W courses will be for those majors who have registered for departmental honors, and they will feature the development of secondary bibliography on the subject of the thesis. All of these writing-intensive courses will begin with a study of the invention and evolution of prose-style in antiquity, with modern parallels. They will then study examples of the forms of writing modernly practiced in classical studies: translations, brief reviews, longer reviews/
discussions, short essays, commentaries, books. Attention in class will be directed towards the structure, cogency, and style of the specimens. Candidates will write original examples in these forms, the amount of formal writing to be no less than 10 pages in the final version. There will also be informal writing in the form of a journal, kept in a composition book to be filled up with daily entries, as well as in-class exercises. The formal writing will be shared with the class, and some of the informal writing as well. English 100 is prerequisite.

Capstone Experience. This requirement may be fulfilled by the seminar courses for the Spring semester of the senior year: Greek 402, 492; Latin 402, 492. The 492 courses will be for those majors who are writing an honors thesis, 402 for others. In either case the candidate will be required to execute a substantial project which must combine a topic in Greek or Roman antiquity with the concerns of at least one other department of the College. Examples: ancient historiography, ancient science (biology, astronomy, physics, chemistry), current literary theory and ancient literature, classical archaeology, comparative linguistics. This approach creates a special subject in the major while also integrating the major with the rest of liberal education.

Those intending to teach Greek or Latin in the public schools are urged to acquire state certification through the department of education. Students and their advisers should consult the booklet, Ursinus College Teacher Education Programs.

Requirements for Minors
A minor concentration in Greek consists of 16 credits in Greek and four credits in classics-in-translation (English 321, 326).
A minor concentration in Latin consists of 16 credits in Latin, and four credits in classics-in-translation (English Literature 321, 326).

GREEK

GRK-100. Introduction to Greek
   Dr. Wickersham
Systematic study of the fundamentals of ancient Greek vocabulary and grammar. Practice in reading and composition. Five hours per week. Four semester hours.

GRK-201. Athens in the Late Fifth Century
   Dr. Wickersham
In the twilight of the Golden Age, political and intellectual changes bring stress. A variety of readings related to the search for justice and the affair of Socrates. Four hours per week. Four semester hours.

GRK-202. Hellenic Panorama
   Dr. Wickersham
Greek has the longest recorded history of any living language. This course presents a variety of readings spanning the millennia from Homer to the present. Four hours per week. Four semester hours.
   The following advanced courses will be given according to students' needs and interests; consult with the department concerning available offerings.

GRK-311. The Epic
   Dr. Wickersham
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 202 or equivalent. Three hours per week. *Four semester hours.*

**GRK-313. Historical Writers**

*Dr. Wickersham*

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

**GRK-314. Drama**

*Dr. Wickersham*

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

**GRK-315. New Testament**

*Dr. Wickersham*

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

**GRK-317. Selected Topics**

*Dr. Wickersham*

Content variable, concentration on author, period, genre and the like. Three hours per week. *Four semester hours.*

**GRK-401W. Seminar**

*Dr. Wickersham*

Seminars of varying content, concentrating on a topic, author or genre, combined with study and practice in writing. Prerequisite: English 100. Three hours per week. *Four Semester hours.*

**GRK-402. Seminar**

*Dr. Wickersham*

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

**GRK-491W. 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. Concentration in the topic of the honors thesis, with study and practice of writing. Prerequisite: English 100. *Four semester hours.*

**GRK-492. Research/Independent Work**

*Dr. Wickersham*

A continuation of Greek 491. Prerequisite: Greek 491. *Four semester hours.*

**LAT**

**LAT-100. Introduction to Latin**

*Dr. Wickersham*

Systematic study of the fundamentals of classical Latin vocabulary and grammar. Practice in reading and composition. Five hours per week. *Four semester hours.*

**LAT-201. From Aeneas to Hannibal**

*Dr. Wickersham*

Readings present legends and history of Roman origins from the Trojan War through the first war with Carthage. Four hours per week. *Four semester hours.*

**LAT-202. Rome: Triumph and Tragedy**

*Dr. Wickersham*

Readings from Livy, Sallust, Eutropius, Cicero: Rome gains the world while endangering its own soul. Four hours per week. *Four semester hours.*

The sequence Latin 100, 201, 202 is recommended for fulfilling the foreign language requirement.

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

**LAT-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. *Four semester hours.*

**LAT-303. Historical Writers**

*Dr. Wickersham*

Caesar, Suetonius, or Tacitus. Three hours per week. *Four semester hours.*

**LAT-304. The Roman Revolution**

*Dr. Wickersham*

Speeches and letters of Cicero, and other contemporary documents. Three hours per week. *Four semester hours.*
LAT-305. Vergil’s Aeneid
Dr. Wickersham
Study of the epic that defined Roman destiny and made empire acceptable to Europe. Three hours per week. Four semester hours.

LAT-307. Selected Topics
Dr. Wickersham
Content variable, concentration on author, period, genre and the like. Three hours per week. Four semester hours.

LAT-308. Selected Topics
Dr. Wickersham
Three hours per week. Four semester hours.

LAT-401W. Seminar
Dr. Wickersham
Seminars of changing content, for study of special topics, authors, genres. Three hours per week. Four semester hours.

LAT-402. Seminar
Dr. Wickersham
Seminars of changing content, for study of special topics, authors, genres. Three hours per week. Four semester hours.

LAT-491W. Research-Independent Work
Dr. Wickersham
This course is open to candidates for departmental honors and to other students with the permission of the department chairperson. Concentration in the topic of the honors thesis, with study and practice of writing. Prerequisite: English 100. Four semester hours.

LAT-492. Research-Independent Work
Dr. Wickersham
A continuation of Latin 491. Prerequisite: Latin 491. Four semester hours.

COMMUNICATION ARTS
Professor Henry (Chairperson), Associate Professor Miller, Assistant Professor Czubaroff, Lecturers, Hughes, Strunk, VanDusen.

The communication arts department aims to increase students’ understanding and practice of communication, through the study of the concepts and processes which govern artistic, interpersonal, rhetorical, and mass communications. Communication study helps to prepare students for careers in the arts (broadcasting, theater, administration); business (advertising, management, public relations); the professions (education, law, journalism); and social services.

Requirements for Majors
A major in communication arts consists of 36 semester hours of credit, including Communication Arts 203, 219, and 444 or 445 or 446 or 491 and 492, and three other courses at the 300 level or above (Communication Arts 201 is not considered part of the major). English 207 or English 214 or English 234 may also be included in the major. Students are encouraged to complete a minor in another department. A major research project or paper (normally completed in Communication Arts 444, 445 or 446 or 491 and 492) must be approved by the communication arts faculty before graduation.

Requirements for Minors
A minor in communication arts supports students in their major areas of study. A minor concentration consists of a minimum of 20 hours of

English 100. Three hours per week. Four semester hours.
credit (excluding 201), including Communication Arts 203, 219, and eight hours at the 300 level or above.

Majors and minors are expected to participate actively and to assume leadership roles with campus organizations associated with the field of communication arts, such as The Grizzly, the campus newspaper; WVOU, the radio station; proTheatre, the drama group; and the Forensic Society. Those who are interested in teaching should consult the education department booklet, Ursinus College Teacher Education Programs (Nov. 1987).

CA-201. Public Speaking Staff
The composition and presentation of speeches that inform and persuade, with group analysis and criticism. Three hours per week. Three semester hours. Enrollment limited to 20 students per section.

CA-203. Mass Media and Society Dr. Miller
An introductory historical and critical survey of the mass media industries in the United States. Print, television, radio, film, and new telecommunication technologies are examined with regard to organization, content, control, economics, and effects on their audiences. Three hours per week. Four semester hours.

CA-210. Television I: Studio Production Dr. Miller
An overview of the principles and techniques of studio television production. Emphasis is placed upon an understanding of the operation and functioning of television equipment, preproduction planning, scripting for television, and directorial techniques. Enrollment limited to 15 students. Prerequisites: CA 201, 203. Four hours per week. Four semester hours.

CA-211. Shakespeare on Stage Dr. DeCatur, Dr. Henry
A comparative study of productions and interpretations of a selection of Shakespeare’s comedies, histories, tragedies and romances (the same course as English 211). Three hours per week. Four semester hours.

CA-219. Interpersonal Communication Dr. Czubaroff
A study of the ways people generate meaning in dyadic relationships. Special attention is given to symbolic codes, listening, and relational conflicts as well as to intercultural and gender differences in communication. Prerequisite: Communication Arts 201. Four hours per week. Four semester hours.

CA-222. Oral Interpretation Staff
An introduction to literature through the mode of performance. Students examine verbal and nonverbal behavior, the relationship of interpreter and audience, and perform and analyze selections of prose, poetry, and drama. Prerequisites: Communication Arts 201, 219. Four hours per week. Four semester hours.

CA-301. Theater Workshop Dr. Henry
An introduction to basic acting techniques and elementary stagecraft. Students participate in acting exercises, improvisation, and scene study, and gain practical experience in campus productions. Prerequisites: Communication Arts 201 and 222 or permission of instructor. Four hours per week. Four semester hours.

CA-309. Television II: Electronic Field Production and Editing Dr. Miller
The techniques of single-camera electronic field production. The course emphasizes preproduction planning and single-camera script development, writing for broadcast, and postproduction electronic video editing and audio mixing. Enrollment limited to 15. Prerequisite: CA 210. Three hours of lecture, two hours of lab per week. Four semester hours.

CA-310. Television III: Advanced Television Production Dr. Miller
An advanced television production course for students interested in developing additional
expertise in studio and field production as well as in television graphics. Students will work intensively on one or more assigned projects which will vary each year. Enrollment limited to 15. Prerequisite: CA 309. Three hours of lecture, two hours of lab per week. Four semester hours.

CA-311. History of Theater Dr. Henry
A survey of the development of theater, its literature, architecture, and artists, from the Greeks to the 20th century. Prerequisites: Junior standing, and one of the following: CA 211, CA 222, CA 301; or permission of the instructor. Three hours per week. Four semester hours.

CA-325. Small Group Communication Dr. Czubaroff
An examination of the theory and process of communication in goal-oriented groups. Special attention is given to decision-making, problem solving, leadership, and conflict management. An introduction is provided to small group methodologies useful in the evaluation of group process. Prerequisite: Communication Arts 201. Four hours per week. Four semester hours.

CA-345. Argumentation Dr. Czubaroff
A study of the basic principles of argumentation and their application in a variety of communication settings. Students analyze extended public arguments, and participate in such argumentation forms as collaborative discussion, advocacy subgroups, and negotiation. Prerequisite: 201. Three hours per week. Four semester hours.

CA-358. Persuasive Communication Dr. Czubaroff
A study of the logical, psychological, and symbolic foundations of persuasive communication. The theoretical study is complemented by an examination of persuasion processes relied upon in advertising, journalism, political communication and religious broadcasting. Prerequisite: Communication Arts 203 or permission of instructor. Three hours per week. Four semester hours.

*CA–362. Issues in Mass Communication Dr. Miller
A critical analysis of selected issues within the field of mass communications. Course content will focus upon media and politics, media and government regulation and policy, press freedoms, obscenity and censorship, media ownership, the new telecommunication technologies, and other current issues within the field. Prerequisite: CA 203. Three hours per week. Four semester hours.

CA–381. Communication Arts Internship Staff
An off-campus academic/work experience under the supervision of an internship adviser and an on-site supervisor. Prerequisites: junior standing, three courses at the 200 level (excluding 201) or above in communication arts, and approval of a faculty internship adviser. Four semester hours.

CA–411. Projects in Communication Arts Staff
Advanced individual work on a special project related to an area of mass, human or creative communication. Prerequisites: eight credits of 300-400 level courses in Communication Arts, a written project proposal, and permission of the instructor. Four semester hours.

CA–412. Projects in Communication Arts Staff
Advanced individual work on a special project related to an area of mass, human or creative communication. Prerequisites: eight credits of 300-400 level courses in Communication Arts, a written project proposal, and permission of the instructor. Four semester hours.

CA–444W. Seminar in Mass Communication Dr. Miller
Intensive reading and individual research of a special topic within the area of mass communication. Emphasis is placed on the preparation of a major written and oral presentation of original research. Open to third and fourth year students with permission of the instructor. Prerequisites: English 100; CA 201, 203, 219, and one of the following: 325, 345, 358, 362. Three hours per week. Four semester hours.

*This Course is not offered in 1990-1991.
*CA-445W. Seminar in Rhetoric and Communication  Dr. Czubaroff

Intensive reading and individual research on a contemporary topic within the fields of interpersonal, small group, and rhetorical communication. Emphasis is placed on the preparation of a major written and oral presentation of the research results. Open to third and fourth year students with permission of the instructor. Prerequisites: English 100, CA 201, 203, 219 and one of the following: 325, 345, 358, 362. Three hours per week. Four semester hours.

*CA-446W. Seminar in Theater  Dr. Henry

Intensive reading and individual research on a historical or critical topic within the field of the theater. Emphasis is placed on the preparation of a major written and oral presentation of the research results. Open to third and fourth year students with permission of the instructor. Prerequisites: English 100, CA 201, 203, 219 and one of the following: 325, 345, 358, 362. Three hours per week. Four semester hours.

CA-491. Research/Independent Work  Staff

This course is open to candidates for department honors and to other students with the permission of the department chair. Four semester hours.

CA-492W. Research/Independent Work  Staff

A continuation of Communication Arts 491. Prerequisite: Communication Arts 491. Four semester hours.

proTheatre  Dr. Henry

Membership in proTheatre, the drama organization, is available to students from all disciplines. Two or more productions, ranging from the classics to the avant-garde, are offered during the year.

COMPUTER SCIENCE

See Mathematics and Computer Science

EAST ASIAN STUDIES

Professor Decatur; Associate Professor Clark (Coordinator); Assistant Professor Hood; Instructor Dezawa.

Acquaintance with cultures other than our own is an integral part of both a liberal education and preparation for a career in a variety of fields including business, law, teaching or government. The East Asian studies minor, an interdisciplinary program drawing on offerings in many departments but emphasizing history, literature, politics, and language, is designed to provide such an introduction to the cultures of China and Japan.

In addition to the courses offered on the Ursinus campus, students are encouraged to take advantage of the Summer Study in Japan Program, offered in conjunction with Tohoku Gakuin University in Sendai, Japan (see below.)

Requirements for Minors

A minor concentration in East Asian Studies consists of 20 credits from courses dealing with East Asia. Twelve credits must come from History 241, 243; Politics 346, 347; or EAS 203, 204. The remaining credits must come from the following: Anthropology 232; EAS 203, 204, 299, 314, 401; Japanese 100, 111, 112, 211, 212, 301, 328;

*This course is not offered in 1990-1991.
History 241, 243; Philosophy and Religion 211; or Politics 346, 347, 353.

EAS-203. Chinese Literature  
Dr. DeCatur  
Critical reading of selected representative works from Chinese literature in modern translations. Three hours per week. Three semester hours.

EAS-204. Japanese Literature  
Dr. DeCatur  
Critical reading in Japanese poetry, novels, short stories and essays in modern translations. Three hours per week. Three semester hours.

EAS-299. Topics in East Asian Studies  
Staff  
An interdisciplinary topics course focusing on aspects of East Asian culture, the specific topic to be chosen by the instructor. To be taught in English by guest faculty. Four hours per week. Four semester hours.

EAS-314. Japanese Culture and Society  
Mr. Dezawa  
Understanding contemporary Japanese society through the traditional arts, music, theater, education and social structures. Taught in English. Four hours per week. Four semester hours.

EAS-401. Summer Study in Japan  
Staff  
A five-week course offered in collaboration with Tohoku Gakuin University in Sendai, Japan. This interdisciplinary course comprises three weeks of classroom instruction in Sendai on selected topics of Japanese culture and society, plus an introduction to conversational Japanese language, followed by a two-week tour of Japan. Instruction is in English and is provided by the faculty of Tohoku Gakuin University as well as members of the Ursinus faculty. Offered annually mid-May through June. Not open to incoming freshmen. Four semester hours.

ECONOMICS AND BUSINESS ADMINISTRATION

Professors Lentz, Pilgrim; Associate Professors Bowers, Harris; Assistant Professors Economopoulos, Gassler, O’Neill (Chairperson), Saleh.

The work in the economics and business administration department is designed to give (1) knowledge of the structure and functioning of our economy; (2) knowledge of the philosophy and methods, including the use of the computer, in 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 complete a minimum of 35 semester hours of work in the department including EcBA 100, 242, 251, 252, and either 351W or 352W, and three additional courses at the 300 level (excluding EcBA 381) or above. The courses 351W and 352W are capstone experiences in the major. In addition, majors must take Math 105 or 111 and 241. Selection of electives will depend on the student’s educational and vocational objective. Recommended electives for different objectives are as follows:
ECONOMICS AND BUSINESS ADMINISTRATION

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 EcBA 221, 308, 309, 313, 314, 315, 316, 319, 328, 463W, 464. Students planning graduate study in economics should also complete both EcBA 351W and 352W as well as Math 111, 112. In addition, Math 211 and 214 are strongly recommended.

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 EcBA 105, 218, 306, 307, 407 and 437.

III. Accounting Emphasis
This program is designed for students interested in entering the field of accounting. In addition to the major requirements, students should elect EcBA 105, 203, 204, 301, 302, 303, 304.

IV. Secondary School Teaching Certification
This program satisfies the Pennsylvania state requirements for secondary certification in social studies—economics emphasis. In addition to the basic requirements of the major, students seeking a teaching certificate must have a registered minor in secondary school teaching. Substantial further course work outside of economics and education is required in order to prepare the student for actual subject matters taught in the secondary curriculum. Students who wish teaching certification should consult their departmental adviser and the chair of the department of education as early as possible, preferably at the end of the freshman year. Students and their advisers should consult the education department booklet. Ursinus College Teacher Education Programs.

Students majoring in the department are also encouraged to elect a minor concentration in some other field. 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. Note: 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 and
international relations. For additional information and course requirements, see the listing in the section on combined majors.

Requirements for Minors
A minor concentration in accounting consists of EcBA 100, 105, 203, 204.


A minor concentration in economics consists of EcBA 100, 251, 252 and two electives chosen from EcBA 221, 308, 309, 313, 314, 316, 319, or 328.

A minor concentration in finance consists of EcBA 100, 105, 251, 252, 306, and 316 and Math 241.

NOTE: Courses in economics, business administration and accounting in the Ursinus College Evening Division may have different prerequisites and coverage from those in the department of economics and business administration. Thus, courses in the Ursinus College Evening Division may be used for credit towards the major in economics and business administration only with the prior written permission of the chair of the department of economics and business administration.

ECBA-100. Introduction to Economics

An introductory study of the basic methodology and techniques of economics and their applications in a variety of markets and social economic policy contexts. Knowledge of two years of high school algebra is assumed. Three hours per week. Four semester hours.

ECBA-105. Principles of Accounting

Mrs Harris, Mr. Bowers

An introductory study of the theory and practice of financial accounting procedures of sole proprietorships and corporations for the purpose of determining income and financial position; emphasis is directed toward the proper analysis and reporting of financial data leading toward the presentation of fairly-stated financial statements. Topics include asset valuation, current and long-term liabilities, analysis of cash flows and financial statements. Prerequisite: EcBA 100. Four hours per week. Four semester hours.


Mrs. Harris, Mr. Bowers

An advanced study of accounting principles and concepts and their applications to the construction and analysis of corporate financial statements, including the balance sheet and income statement. Emphasis on asset measurement and income determination. Special attention is given to the F.A.S.B. 's current developments. Prerequisites: EcBA 100, 105. Four hours per week. Four semester hours.

ECBA-204. Intermediate Financial Accounting-II

Mrs. Harris, Mr. Bowers

A continuation of EcBA 203. Topics covered include valuation of liabilities and investments, reporting of corporate equity, statement of changes in financial position and other selected topics. Prerequisites: EcBA 100, 105, 203. Four hours per week. Four semester hours.

ECBA-218. Management

Staff

The study of the management process and concepts of modern management in the
context of today's global business environment. Includes an examination of the major managerial functions of decision-making techniques. The course blends theory and practical applications through the use of case studies and the examination of current management problems and practices. Prerequisite: EcBA 100. Three hours per week. Three semester hours.

ECBA-221. History of Economic Thought
Dr. Saleh
An examination of the development of systematic economic thought from ancient to modern times. Ideas considered in the light of their initial and continuing relevance. Prerequisite: EcBA 100. Three hours per week. Three semester hours.

ECBA-242. Statistical Applications in Economics and Business
Dr. Lentz, Dr. O'Neill
An introduction to statistical methods commonly used in the testing of economic hypotheses, the identification of trends, and forecasting. Topics include the specification, estimation, and verification of multiple regression and time series models. Specific models will be estimated using standard computer software packages. A research paper will be required. Prerequisites: EcBA 100; Math 241. EcBA 251 and 252 must be either previously completed or studied concurrently. Math 105 or 111 must be previously completed or studied concurrently. Three hours of lecture; two hours of laboratory per week. Four semester hours.

ECBA-251. Microeconomic Theory-I
Dr. O'Neill, Dr. Lentz
The study of the economic analysis of individual markets for products and resources and how the choices of consumers, workers, resource owners and product producers affect these markets and their structures. Prerequisite: EcBA 100. Sophomore standing. Knowledge of two years of high school algebra is assumed. Three hours of lecture; two hour of laboratory per week. Four semester hours.

ECBA-252. Macroeconomic Theory-I
Dr. Economopoulos, Dr. O'Neill
The study of national income determination in an open economy with emphasis on the determinants of equilibrium in the goods, assets and labor markets. Analysis of the unemployment-inflation tradeoff and alternative stabilization policy approaches. Prerequisite: EcBA 100. Sophomore standing. Knowledge of two years of high school algebra is assumed. Three hours of lecture; two hours of laboratory per week. Four semester hours.

ECBA-301. Partnerships and Consolidations
Mr. Bowers
This course deals with: partnership problems, including distribution of profits, admission and withdrawal of partners and realization and liquidation; investments in other corporations and problems of preparation of consolidated financial statements of parent and subsidiaries; business combinations; and other topics as selected. Prerequisites: EcBA 100, 105, 203, 204. Three hours per week. Three semester hours.

Mr. Bowers
Fundamentals of the Federal income tax as it affects accounting and business planning. Although attention is given to the income tax imposed on individuals, major emphasis is placed upon the income tax problems of business firms, corporations, partnerships, individual proprietorships, fiduciaries. Problem areas include depreciation, inventories, capital gains and losses, operating losses, dividends and other corporate distributions, reorganizations, and similar topics. Prerequisites: EcBA 100, 105, 203, 204. Three hours per week. Three semester hours.

ECBA-303. Advanced Managerial Accounting
Mrs. Harris
The study of the cost elements—material, labor and overhead in job order and process cost systems. The role of cost data, including standard costs and budgets in managerial planning, cost control and decision making. Prerequisites: EcBA 100, 105, 203, 204, 251. Three hours per week. Three semester hours.
ECBA-304. Theory and Practice of Auditing  Mrs. Harris

This course deals with auditing by the independent public accountant; course study includes professional ethics, auditors' legal liabilities arising as a result of negligence or fraud; client engagement letters; audit programs and work papers; auditing procedures and techniques for assets, liabilities, owners' equities, revenues, and expenses appearing in the financial statements of the client. Statistical sampling and auditing with and by computer system are considered. The nature, form, and scope of audit reports and qualifications thereof are studied.

Prerequisites: EcBA 100, 105, 203, 204; Math 241. Three hours per week. Three semester hours.

ECBA-306. Corporation Finance  Dr. Economopoulos

A study of the basic principles underlying the financing of the corporate structure. Short- and long-term financing instruments. Expansion, failure, and reorganization of the corporation. Extensive semester project based on financial analysis and forecasting is required. 

Prerequisite: EcBA 100, 105, 251, Math 241. Three hours per week. Four semester hours.

ECBA-307. Marketing  Staff

The study of marketing as a major business function. An examination of principles and concepts of modern marketing in the context of today's business environment. The course blends theory and practical application through the use of case studies and the examination of current marketing problems and practices. Prerequisites: EcBA 100, 251. Three hours per week. Three semester hours.

ECBA-308. International Trade Theory and Policy  Dr. O'Neill

An analysis of world trade using the classical, neoclassical Hecksher-Ohlin and post-modern theories of trade. Extensive commercial policy analysis concerning the use of tariffs, quotas, voluntary restraints and non-tariff barriers. Ongoing discussion analyzing current trade problems, prescriptions and legislation. Prerequisites: EcBA 100, 251. Three hours per week. Three semester hours.

ECBA-309. International Finance Theory and Policy  Dr. O'Neill

An examination of balance of payments theory using fixed and flexible exchange rate regimes. Analysis of the effects of fiscal and monetary policies given alternative presumptions concerning capital mobility, expectations formation and international policy coordination. Systematic analysis of current international financial policies. Prerequisites: EcBA 100, 252. Three hours per week. Three semester hours.

ECBA-313. Economics of the Public Sector  Dr. Gassler, Dr. Lentz

The economic analysis of the use of resources for public purposes by local, state and Federal governments, emphasizing the rationale for public expenditures, taxation structures and public choice mechanisms. Prerequisites: EcBA 100, 251, 252. Three hours per week. Three semester hours.

ECBA-314. Economic Development  Dr. Saleh

An examination of the theories of economic growth and development and of the process and problems of economic development in the contemporary world. Prerequisites: 100, 251, 252. Three hours per week. Three semester hours.

ECBA-316. Economics of Money and Capital Markets  Dr. Economopoulos

A theoretical and empirical study of major financial intermediaries, their sources and uses of funds, their operative and regulatory constraints, and their impact on aggregate economic activity. Prerequisites: EcBA 100, 252. Three hours per week. Three semester hours.

ECBA-319. Labor Economics  Dr. Lentz

A theoretical and empirical study of the functioning of labor markets, with emphasis on employment and compensation determination as affected by worker and firm characteristics, public policy and worker organizations. Prerequisites: EcBA 100, 251, and 252. Three hours per week. Three semester hours.
ECBA-328. Comparative Economic Systems  Dr. Gassier
Analysis of alternative national economic systems in developed and underdeveloped countries in theory and practice. The formulation of economic policies to solve economic problems is discussed and compared. Prerequisites: EcBA 100, 251, 252. Three hours per week. Three semester hours.

ECBA-351W. Microeconomic Theory-II  Dr. Lentz
An advanced study, including a mathematical exposition and readings from current economics journals, of optimization and equilibrium analysis with applications in asset, resource and product markets. A research paper will be required and presented orally. Prerequisites: EcBA 100, 242, 251, 252; Math 105 or 111, and 241, English 100; Comm. Arts. 201. Three hours per week. Four semester hours.

ECBA-352W. Macroeconomic Theory-II  Dr. Economopoulos
An advanced theoretical and empirical study, including a mathematical exposition and readings from current economics journals, of national income determination, with particular emphasis on underlying goods, assets and labor markets. A research paper will be required and presented orally. Prerequisites: EcBA 100, 242, 251, 252; Math 105 or 111, and 241, English 100; Comm. Arts. 201. Three hours per week. Four semester hours.

ECBA-381. Internship  Staff
An off-campus academic/work experience under the supervision of a faculty internship adviser and an on-site supervisor. Contact the chair of the department for further details. Prerequisites: junior standing, 12 credits in economics and business administration, and prior written approval of a faculty internship adviser. Eight to 10 hours per week. Three semester hours.

ECBA-407. International Marketing  Staff
The study of the marketing function in the context of world business. An examination of the complexities, problems and opportunities of world-wide marketing of both consumer and industrial products and services. The course will blend theory and practical applications through the use of case studies providing the students the opportunity for analysis of marketing problems and the formulation of marketing strategy in a global setting. Prerequisites: EcBA 100, 251, 252, 307 and 308. Three hours per week. Three semester hours.

ECBA-437. Strategic Management and Business Policy  Staff
The study of business strategy, the process of its formulation and implementation and an examination of business policy problems and their solutions. The case study method is used, requiring written and oral presentations. Prerequisites: EcBA 100, 105, 218, 251, 252, 306, and 307. Three hours per week. Three semester hours.

ECBA-463W. Econometrics  Dr. O'Neill
The design and testing of economic hypotheses using multiple regression analysis. Particular care will be given to the statistical and economic theory which lies behind the most common applications. A research paper will be required and presented orally. Prerequisites: English 100; EcBA 100, 242, 251, 252 and either 351W or 352W. Three hours per week. Four semester hours.

ECBA-464. Mathematical Economics  Dr. Gassier
Topics in mathematics of particular importance in economics, with applications. A research paper will be required. Prerequisites: EcBA 100, 251, 252, and either 351W or 352W; Math 111, 112, 211; or permission of instructor. Four hours per week. Four semester hours.

ECBA-491. Research/Independent Work  Staff
Preparation of independent research paper. Open only to candidates for departmental honors. Three semester hours.

ECBA-492. Research/Independent Work  Staff
A continuation of Economics and Business Administration 491. Prerequisite: EcBA 491. Three semester hours.
Aims of the Education Department

1. To contribute, in the classical tradition, to the liberal education of students by preparing them for free citizenship and continuing personal cultivation beyond any strictly vocational expectations. Great ideas expressed by great writers are our subject matter; our methods are discussion, analysis, synthesis, critical thinking, and problem-solving through clear and logical written and spoken English.

2. To provide a framework for acquiring the art of teaching: how people learn; under what conditions and at what stages they are most likely to learn; how to define educational objectives; how to design a curriculum/course/unit and to select instructional techniques to meet those objectives and to accommodate the broadest possible range of abilities and exceptionalities; and how to assess the extent to which the objectives are met.

3. To provide background on the history of education, on the philosophical theories on which educational practice has been based, and on the political realities which can make all the rest irrelevant.

4. To provide entry-level skills for beginning teachers in public and private educational settings.

5. To provide programs leading to Instructional I certification by the Pennsylvania Department of Education in the following areas.

- Biology
- German
- Mathematics
- Chemistry
- Health & Physical Education
- Physics
- English
- Education
- Social Studies
- French
- Latin
- Spanish
- General Science
- Teaching Intern

In addition to the education department requirements listed in this catalog, the academic departments participating in teacher education at Ursinus College have determined their own specific requirements for admission to student teaching. The recommendation of the student's major department is required for admission to student teaching. For details, see the education department booklet, Ursinus College Teacher Education Programs.

Pennsylvania will certify candidates for the Instructional I (provisional) certificate upon recommendation of the College's certification officer (the education department chair). Such recommendation will depend upon completion of a state-approved certification program and upon academic achievement, specified demonstrated competencies in
professional course work, field experiences, and fitness for teaching. Candidates for the Instructional I certificate must also pass the Pennsylvania Teacher Certification Test.

Teacher certification through Ursinus College has been accepted in many other states, while Pennsylvania is party to interstate compacts and reciprocity agreements with most state educational agencies. This means that certification by the Commonwealth of Pennsylvania normally allows a person to teach nearly anywhere in the country as well as at American schools abroad. Some states have recently instituted their own certification tests; the student interested in teaching outside Pennsylvania should consult with the education department at Ursinus or with the educational agency of the state in which he/she expects to teach.

Certification in foreign languages or in health and physical education enables one to teach in every grade from kindergarten through 12th grade; the others listed above apply to grades 7 through 12.

Students are invited to elect courses in education to fulfill their degree requirements in basic intellectual skills, in the minor concentration, or in individual choice electives.

For students interested in a complete program in education, two options are available: 1) a teacher certification program; 2) a minor in secondary education.

Teacher Certification.

The student is hereby cautioned that the College's teacher certification programs are undergoing a review and modification mandated by the Pennsylvania Department of Education. As a result of that review, the program required for certification in the future may differ from that described below. Program changes will be communicated with the student as soon as they are official.

Required courses: Education 202, 265, 302, 405, 441, 443, and 444; Psychology 100; Communication Arts 201. Education 443 will be satisfied for students who major in health and physical education by completing H.P.E.R. 355.

All candidates for teacher certification must complete Communication Arts 201 (Public Speaking); this course may not be exempted for such students and should be taken prior to the fall semester of the senior year, during which student teaching occurs.

As an institution having been granted program approval by the Pennsylvania Department of Education, the College is prepared to address the needs of nontraditional candidates for certification, including those with degrees who wish initial or additional areas of certification. Where a candidate for certification can provide evidence of appropriate prior academic learning, teaching experience, or
certification, provision is made for accrediting such work as part of the process of recommending a candidate for certification. Candidates for Ursinus degrees must meet the College and major department requirements noted elsewhere in this catalog.

*A minor in secondary education.* Required courses: Education 202, 265, 444, and either 434 or 446.

**EDUC-202. Introduction to Secondary School Teaching**  
*Dr. O’Brien, Dr. Price*

An introductory course for those who plan to teach or who wish to know more, as citizens, about their public schools. It deals with the organization and characteristics of the American school system, noting the characteristics of teaching as a profession and the teacher’s responsibility in the classroom and the school. Field trips and observations are required. Three hours per week. *Three semester hours.*

**EDUC-265. Educational Psychology Staff**

Educational application of psychological concepts will be addressed. The focus is on the psychological processes involved in learning and behavior management in the classroom, but the course includes a survey of cognitive and social development. Prerequisite: Psychology 100. Three hours per week. *Four semester hours.*

**EDUC-302. Education Practicum**  
*Dr. Price*

An off-campus academic/work experience in the primary and secondary schools under the supervision of a faculty advisor and an on-site cooperating teacher. This course is primarily for the student planning to do practice teaching as a senior. Prerequisites: junior standing, completion of ED 202, and approval of a faculty practicum advisor. Minimum of three hours per week, including on-campus practicum sessions. *Two semester hours.*

**EDUC-381. Internship Staff**

An off-campus academic/work experience under the supervision of an internship adviser and an on-site supervisor. This course is limited to those students with teaching intern certification, and requires a full-time teaching position in an approved public or private school setting. In order to be recommended for Instructional I certification, the student must earn a grade of at least A- in this course. *Three semester hours.*

**EDUC-405. Student Teaching**  
*Dr. Price, Dr. O’Brien*

A laboratory course consisting of observation and 12 weeks of student teaching. Supervision is provided by faculty in the department of education and, where possible, by other members of the College community in cooperation with teachers from local schools. Conferences and critiques occur between College faculty and student teachers. The course is open only to fourth-year students who meet published academic criteria. These criteria include a cumulative average of at least C + (2.33) by the end of the junior year, as well as those criteria specified by the student’s major department. In order to receive the College’s recommendation for teacher certification, the student teacher must earn a grade of at least B- in this course. Fall semester. Prerequisites: Education 202, 265, 302, 441, 443, 444, CA 201, Psychology 100. *Ten semester hours.*

**EDUC-434. Seminar in Secondary Education Staff**

A study of selected topics relevant to secondary education in today’s schools, with special attention to curriculum development. Two hours per week. *Two semester hours.*

**EDUC-441. Orientation to Educational Practice and Methodology Staff**

Principles of secondary school teaching; general methods of instruction; problems of the beginning teacher; function and use of instructional materials. Two hours per week. *Two semester hours.*
EDUC–443. Special Methods of Teaching in The Secondary Schools

This course, which supplements the general methods course (441), provides specialized instruction in teaching one of the subject areas offered in the College's teacher education programs. Sections are offered in each discipline and are noted on student records according to the following scheme:

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

Sections are taught by experts in the subject fields from the public schools. Prerequisite: Education 441. One hour per week. One semester hour.

EDUC–444. Foundations of Education

Dr. O'Brien

A study of the philosophical and historical foundations of education, with reference to current conditions and practices in the public schools. Three hours per week. Three semester hours.

EDUC–446. Issues and Trends in Contemporary Education

Dr. O'Brien

A study of current issues with reference to educational history on the one hand, and to trends and educational futures on the other. At present the course addresses such topics as values education, the so-called quality vs. equity dilemma, accountability, and the reform of teacher education. Three hours per week. Three semester hours.

*EDUC–451. Research

This course comprises directed reading and research on a specific topic in education.

Students wishing to register in this course present to the adviser for this research a proposal outlining the research to be conducted. The proposal must be approved by the adviser. At regular intervals during the semester, students submit progress outlines and meet with the adviser to discuss them. A final paper is required. One semester hour.

*EDUC–452. Research

Same as Education 451, but offered in the spring semester.

*EDUC–491. Research/Independent Work

Independent investigation of an aspect of teaching, using both the library to examine relevant literature and the school setting as a laboratory for applying theory. Oral progress reports and a major paper are required. Written consent of the research adviser and department staff must be presented at the time of registration. Three semester hours.

*EDUC–492. Research/Independent Work

Same as Education 491, but offered in the Spring Semester. Three semester hours.

EDUC–493. Supervised Field Experience

Dr. Price

For current teachers and others with relevant degrees and experience who wish initial or additional certification. Faculty will supervise teaching assignments during which the candidate teaches a variety of units or a range of grade levels under the guidance of a classroom teacher. Approval of department staff required. Three semester hours.

EDUC–494. Supervised Field Experience

Same as 493, but offered in the Spring Semester.

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*Not offered in 1990-91

ENGLISH

Professors DeCatur, Henry, Perreten, Wickersham; Associate Professors Lionarons, Schroeder (Chairperson); Assistant Professors, Dole, Volkmer; Lecturers Agostinelli, Darrohn, Randolph, Rosenberg.

Requirements for Majors

Majors must complete at least nine courses in English beyond English 100, including: 201W; any four of the sequence 215–220, including
either 219 or 220; at least two 300-level courses; and a 400-level seminar or an honors paper.

Students who are considering graduate study in English are strongly encouraged to take more than the minimum number of courses, including the entire 215–220 sequence.

Students who want to be certified to teach English must fulfill all departmental requirements for an English major. Their courses should include literary genres, themes, chronologies, and major writers. In addition, students working toward certification must select the following courses: English 208 and 214; Communication Arts 201; and World Literature 201. They are also strongly urged to complete the entire 215–220 sequence. Candidates for certification must also participate in student journalism or theater activities. Students and their advisers should consult the education department booklet, *Ursinus College Teacher Education Programs*.

**Requirements for Minors**

A minor concentration in English consists of at least 16 hours in English beyond English 100. At least two of the series 215-220 are strongly recommended.

A minor concentration in creative writing consists of English 302 plus at least three of the following composition courses: 205, 206, 207, 208. Participation in student publications (*The Grizzly* or *The Lantern*) for a minimum of two semesters is also required.

**ENGL–100. First-Year Composition**  
Expository writing workshop, with attention to all the stages of the writing process from generating ideas to refining drafts. Students will write frequent short papers. The course will also introduce students to the proper use of outside sources. Three hours per week. *Four Semester hours.*

*ENGL–200. Introduction to Literature**  
Staff

The course develops skills in reading, understanding, and appreciating literature with the aim of helping students read good literature for lifetime enjoyment. Themes and topics change each year. Not open to junior or senior English majors. English 200 does not count toward an English major or minor. Prerequisite: English 100. Three hours per week. *Three semester hours.*

**ENGL–201W. Literary Criticism and its Application**  
Dr. Lionarons

A workshop in critical writing about literature, organized around the study of traditional and specialized approaches to fiction, drama, and poetry. Prerequisite: English 100 or equivalent. Four hours per week. *Four semester hours.*

**ENGL–205. Fiction Writing**  
Dr. Volkmer

A beginning course in the writing of fiction, with special attention to the short story. The student will study technical aspects of the craft and masterpieces of the genre. The student will write short stories, receive critical responses, and make extensive revisions. Enrollment limited to 12 students. Prerequisite: English 100. Three hours per week. *Four semester hours.*

**ENGL–206. Poetry Writing**  
Dr. Volkmer

A beginning course in the writing of poetry. The student will study selected works, learn traditional forms of the lyric, and write original verse in those forms. The student will make extensive revisions, based on responses from peers and the professor. Enrollment limited to 12 students. Prerequisite: English
ENGLISH

100. Three hours per week. *Four semester hours.*

ENGL–207. Introduction to Journalism  
Staff
An introduction to journalistic writing and interpretive reporting. Work on college publications is recommended to provide practical experience. Enrollment is limited to 12 students per section. Prerequisite: English 100. Three hours per week. *Four semester hours.*

ENGL–208. Advanced Expository Writing  
Dr. Perreten
Practice, on an advanced level, in the writing and critical evaluation of non-fictional prose. Enrollment is limited to 12 students per section. Prerequisite: English 100. Three hours per week. *Four semester hours.*

Note: Students who have taken 234 will not receive credit for 208.

ENGL–211. Shakespeare on Stage  
Dr. DeCatur, Dr. Henry
A comparative study of productions and interpretations of a selection of Shakespeare's comedies, histories, tragedies, and romances. Prerequisite: English 100. Three hours per week. *Four semester hours.*

Note: English majors will normally take English 309, 310; credit toward the major will be given only for any two of the courses English 309, 310, or 211.

ENGL–214. Linguistics and Modern Grammar  
Dr. Lionarons
An introduction to synchronic and diachronic linguistics, stressing the ways in which linguistic structures promote effective communication. Recommended for future writers and lawyers as well as English teachers. Prerequisite: English 100. Four hours per week. *Four semester hours.*

ENGL–215. Medieval and Renaissance Literature  
Dr. DeCatur, Dr. Lionarons, Dr. Perreten
Includes Chaucer, Spenser, Shakespeare, and others, presented in historical context.

ENGL–216. 17th- and 18th-Century English Literature  
Dr. DeCatur, Dr. Lionarons, Dr. Perreten
Includes Milton, Dryden, Swift, Pope, and others, presented in historical context. Prerequisite: English 100. Four hours per week. *Four semester hours.*

Note: Students who have taken English 203 will not receive credit for 215 or 216.

ENGL–217. Romantic and Victorian Literature  
Dr. Dole, Dr. Perreten
Includes Wordsworth, Keats, Tennyson, and others, presented in historical context. Prerequisite: English 100. Four hours per week. *Four semester hours.*

ENGL–218. 20th-Century English Literature  
Dr. DeCatur, Dr. Dole, Dr. Perreten
Includes Joyce, Woolf, Eliot, and others, presented in historical context. Prerequisite: English 100. Four hours per week. *Four semester hours.*

Note: Students who have taken English 204 will not receive credit for 217 or 218.

ENGL–219. American Literature before 1900  
Dr. Schroeder
A survey of American literature from the beginning through Twain and James, with attention to minority and women writers as well as traditional figures. Prerequisite: English 100. Four hours per week. *Four semester hours.*

ENGL–220. 20th-Century American Literature  
Dr. Schroeder
A survey of American literature from c. 1900 to the present, with attention to minority and women writers as well as traditional figures. Prerequisite: English 100. Four hours per week. *Four semester hours.*

ENGL–222. African-American Literature  
Dr. Schroeder
An introduction to the literature written by black American writers and the criticism of
that literature in its different stages of development. Prerequisites: English 100; LS 100. Three hours per week. *Four semester hours.

ENGL-302. Advanced Creative Writing
Dr. Volkmer
A workshop course in creative writing offering the student the opportunity to receive significant critical responses on extended works of poetry or prose fiction. Enrollment limited to 10 students. Prerequisite: English 205 or 206, or permission of the instructor. Three hours per week. *Four semester hours.

ENGL-309. Shakespeare and His Contemporaries
Dr. DeCatur, Dr. Henry
The reading of Shakespeare's principal history plays and comedies and the study of their background with supplemental plays written by his important contemporaries. Prerequisites: English 100; LS 100. Three hours per week. *Four Semester hours.

ENGL-310. Shakespeare and His Contemporaries
Dr. DeCatur, Dr. Henry
The reading of Shakespeare's principal tragedies and romances and the study of their background, with supplemental plays written by his important contemporaries. English 309 is not a prerequisite for 310. Prerequisites: English 100; LS 100. Three hours per week. *Four semester hours.

ENGL-317. Studies in Poetry
Dr. Perreten, Dr. Volkmer
An in-depth examination of poetry and poetics in English. The course includes reading of primary and secondary sources, critical evaluation of poetry, and imitation of poetic forms. Prerequisite: English 201W. Three hours per week. *Four semester hours.

ENGL-318. Women's Literature
Dr. Dole, Dr. Lionarons, Dr. Schroeder
A cross-period study of literature by British and American women, paying attention to issues of canon formation and feminist literary theory. Prerequisites: English 100; LS 100. Three hours per week. *Four semester hours.

ENGL-321. Topics in Classical Studies
Dr. Wickersham
A thorough study of one area of ancient Greek or Roman experience, thought, and literature. Reading in translation of comedy or epic or tragedy. Prerequisites: English 100; LS 100. Three hours per week. *Four semester hours.

*ENGL-326. Mythology
Dr. Wickersham
Illustrated lectures survey the tales of gods and heroes in Greek legend, from the creation of the world to the end of the age of myth—the foundations of Western literature. Interpretive approaches are also studied. Prerequisites: English 100; LS 100. Three hours per week. *Four semester hours.

*ENGL-329. Chaucer and His Contemporaries
Dr. Lionarons
A study of Chaucer's poetry in its historical and literary contexts. Students will read *Troilus and Criseyde*, selected *Canterbury Tales*, and some of Chaucer's shorter poems in conjunction with selected works of Chaucer's major contemporaries. Prerequisite: English 215 or consent of the instructor. Four hours per week. *Four semester hours.

*ENGL-335. 20th-Century Drama
Dr. Henry
A study of the principal plays, playwrights, and movements of the 20th century, beginning with the revolution of Ibsen's realism through the emergence of women and black playwrights. Prerequisites: English 100; LS 100. Four hours per week. *Four semester hours.

Students who have taken English 336 will not receive credit for English 335.

*ENGL-337. British Novel I
Dr. Dole, Dr. Perreten
A study of the origins and development of the novel in England up to the mid-19th century. Prerequisites: English 100; LS 100. Three hours per week. *Four semester hours.

ENGL-338. British Novel II
Dr. Dole
A study of the development of the novel in Great Britain from the mid-19th century to the present. English 337 is not a prerequisite.
ENGLISH/GEOGRAPHY

Prerequisites: English 100; LS 100. Three hours per week. *Four semester hours.*

ENGL–340. The Narrative Tradition in America Dr. Schroeder
Study of selected American novels. Prerequisite: English 219 or 220, or consent of instructor. Three hours per week. *Four semester hours.*

ENGL–342. Contemporary Fiction Dr. Schroeder, Dr. Volkmer
A study of significant fictional works, trends, and innovations since World War II. Prerequisite: English 218 or English 220 or consent of instructor. Three hours per week. *Four semester hours.*

ENGL–381A. Internship Staff
An off-campus academic/work experience under the supervision of an internship adviser and an onsite supervisor, involving 8 to 10 hours weekly. Discuss details with the chair of the department. Prerequisite: junior standing and the approval of an internship adviser. *Three semester hours.*

ENGL–381B. Internship Staff
An off-campus academic/work experience under the supervision of an internship adviser and an onsite supervisor, involving 11 to 14 hours weekly. Discuss details with the chair of the department. Prerequisite: junior standing and the approval of an internship adviser. *Three semester hours.*

FINE ARTS
See Art, Music

FRENCH
See Modern Languages

GEOGRAPHY
*Visiting Professor Boekenkamp*

GEOG–102. Geography Dr. Boekenkamp
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.*
GEOLOGY
Visiting Professor Boekenkamp
The science of geology presents to the student the physical nature and history of the earth and their relationship to the cultural, economic and political concerns of man.

GEOL-100. Geological Sciences I
Dr. Boekenkamp
A study of earth materials, processes and structures that form the earth. This study enables the student to interpret earth history as events recorded by geologic processes and organic evolution. Two hours of lecture and two hours of laboratory work per week. Three semester hours.

GEOL-200Q. Geological Sciences II
Dr. Boekenkamp
Continued studies in selected fields in the geological sciences of special interest to one's understanding of related phenomena and the environment. Prerequisite: Geology 100. Two hours of lecture and two hours of laboratory/field work per week. Three semester hours.

GERMAN
See Modern Languages.

GREEK
See Classical Studies.

HEALTH, PHYSICAL EDUCATION AND RECREATION
Associate Professors Boyd, Davidson (Chairperson), Whatley;
Assistant Professors Borsdorf, Chlad, Swalm, Wailgum; Visiting Professors Gilbert, Gros; Instructor Poley.

The health, physical education and recreation (HPER) 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 program in health, physical education and recreation leading to teaching and other professional certifications.

Included in the service program are required classes in basic activities, optional organized intramural programs for men and women, and recreational facilities for use by 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, physical education and recreation. Implicit in its objectives is 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.
Requirements for Majors

Students majoring in health, physical education and recreation must take the following courses: HPER 131, 167, 351, 352, 362W, 401, 462; Biology 317 and 318. These students are also required to complete the capstone and oral presentation requirements (HPER 412, 465, 466, 482, or 491) and at least one of the following areas of concentration:

I. Teaching of Health and Physical Education

This program is recommended for those preparing to become teachers. The required courses are HPER 132, 232, 333, 334, 355, 464; IS 350; and seven semester hours of HPER majors' activities representing all five activities areas.

NOTE: Students seeking K-12 teaching certification in health and physical education from the Commonwealth of Pennsylvania must include the following courses of study in their program: EDUC 202, 225, 302, 405, 441, and 444. Students and their advisers should consult the education department booklet, *Ursinus College Teacher Education Programs*, for further information.

II. Human Performance

A science-based program recommended for those interested in athletic training, pre-physical therapy, and other areas related to human performance. The required courses are HPER 268, 334, 346, 347; 1.5 semester hours of majors’ activities including HPER 102; 14-16 semester hours of laboratory courses in the natural sciences; and Psychology 260.

NOTE: Students seeking admission to graduate programs in physical therapy or related fields should take Biology 111, 112; Chemistry 111, 112; Math 111, 112, 241; and Physics 111, 112.

III. Wellness and Fitness

This program is recommended for those preparing for careers in the field of wellness and fitness. The required courses are HPER 132, 243, 334, 346, 347, 412, 464; one semester hour of majors’ activities; Psychology 260; and either Psychology 360 or 365.

Minor Concentrations

A minor concentration in athletic training consists of HPER 167, 268, 351, 468; two semester hours of majors’ activities including HPER 401; and Biology 317, 318. (20 semester hours)

A minor concentration in coaching consists of HPER 167, 268, 334, 363, 365, 366; two semester hours of majors’ activities including 401. (18 semester hours).

A minor concentration in wellness/fitness consists of HPER 131, 132, 333, 334, 346, 347, and 401. (20 semester hours).
A minor concentration in health consists of HPER 132, 167, 232, 333, 334, and 464, and IS 350. (19 semester hours.)

HPER–100. Concepts of Wellness and Fitness
An exploration of the various dimensions of wellness. Emphasis will be on the concepts of total fitness and wellness. Wellness/fitness self-testing, self-evaluation, and self-care skills will be addressed; individualized wellness programs will be developed and implemented. This course is required of all students except those majoring in health and physical education and should be completed in the first two years. This course will be offered in both the fall and spring semesters. Three hours per week. Three semester hours.

In addition to HPER–100, all students except those majoring in health and physical education will be required to elect a total of 1 semester hour of activities from the following: HPER 010, 014, 017, 019, 022, 027, 029, 031, 033, 034, 035, 037, 039, 041, 042.

Academic credit for activities courses in excess of the college requirement will be withheld until the student has earned a total of 128 semester hours credit. An exception will be made in the case of students who wish to minor in HPER. In such cases, academic credit will be given within the 128 hour limit.

The intent of these courses will be to develop basic skills, improve fitness, foster the concepts of wellness, provide enjoyment and develop recreational and social competence through participation in lifetime sports.

Required Activities Courses

Activities Courses—Non-majors

HPER–010. Social, Folk and Square Dancing Mrs. Poley
One-half semester hour.

HPER–014. Volleyball Staff
One-half semester hour.

HPER–017. Badminton, Squash, Racquetball Mrs. Poley
One-half semester hour.

HPER–019. Judo-Self Defense Dr. Davidson
One-half semester hour.

HPER–022. Modern Dance Mrs. Poley
One-half semester hour.

HPER–027. Basic Swimming Dr. Davidson
One-half semester hour.

HPER–029. Intermediate Swimming Staff
One-half semester hour.

HPER–031. Golf Staff
One-half semester hour.

HPER–033. Archery and Bowling Staff
One-half semester hour.

HPER–034. Water Safety Instructor Dr. Davidson
Prerequisite: 029 or permission of instructor.
One semester hour.

HPER–035. ARC Lifeguarding Certification Dr. Swaim
One semester hour.

HPER–037. Weight Training and Conditioning Mr. Gilbert
One-half semester hour.

HPER–039. Tennis Mrs. Poley
One-half semester hour.

HPER–041. Wellness I Staff
Walking and stretching activities for the promotion of physical fitness. One-half semester hour.

HPER–042. Wellness II Staff
Weight control techniques through diet and exercise; stress management skills. One-half semester hour.

Activities Courses—Majors

*HPER–101. Social, Folk and Square Dancing Mrs. Poley
One semester hour.

HPER–102. Introduction to Human Kinetics Dr. Swalm, Dr. Wailgum
One-half semester hour.

103
HPER

HPER-103. Soccer  
One-half semester hour. 

HPER-104. Volleyball  
Dr. Wailgum  
One-half semester hour. 

HPER-105. Wrestling  
Staff  
One-half semester hour. 

HPER-106. Lacrosse  
Ms. Boyd  
One-half semester hour. 

HPER-109. Judo-Self Defense and Tumbling  
Staff  
One-half semester hour. 

HPER-200. Field Hockey  
Ms. Boyd  
One-half semester hour. 

HPER-202. Modern Dance  
Mrs. Poley  
One-half semester hour. 

HPER-203. Racquet Sports  
Staff  
One semester hour. 

HPER-204. Miscellaneous Activities  
Dr. Borsdorf  
Non-traditional Team Games and Activities.  
One semester hour. 

HPER-205. Football  
Mr. Gilbert  
One-half semester hour. 

HPER-206. Baseball  
Mr. Whatley  
One-half semester hour. 

HPER-207. Basic Swimming  
Ms. Chlad  
One-half semester hour. 

HPER-208. Softball  
Mr. Whatley  
One-half semester hour. 

HPER-209. Basketball  
Staff  
One-half semester hour. 

HPER-210. Track and Field  
Mr. Whatley  
One-half semester hour. 

HPER-300. Gymnastics  
Staff  
One semester hour. 

HPER-304. Water Safety Instructor (WSI)  
Dr. Davidson  
One semester hour. 

HPER-305. ARC Lifeguarding Certification  
Dr. Swalm  
Prerequisite: 207 or permission of instructor.  
One semester hour. 

HPER-306. Archery, Bowling, and Golf  
Dr. Swalm  
One semester hour. 

HPER-308. Elementary Activities  
Mrs. Poley  
One-half semester hour. 

HPER-401. Aerobics, Conditioning and Weight Training  
Staff  
One semester hour. 

HPER-403. Special Activities  
Staff  
One-half semester hour. 

HPER-404. Special Activities  
Staff  
One semester hour. 

HPER-131. Survey of Health, Physical Education and Recreation  
Dr. Swalm  
A survey course designed to give the student an understanding of the history, basic philosophies, principles, problems, and scope of the disciplines of health, physical education, and recreation. Three hours per week. Three semester hours. 

HPER-132. Health Awareness and Wellness  
Ms. Boyd  
A study of factors affecting the physical, mental, and social well-being of the individual and the community. Major emphasis is placed on the identification and prevention of personal health problems and on the functioning of the human body. Prerequisite: HPER131 or permission of the instructor. Three hours per week. Three semester hours. 

HPER-167. Community CPR and Standard First Aid  
Staff  
This course meets the requirements for the American Red Cross Standard First Aid and
Community CPR Certifications. Three hours per week/quarter. One Semester Hour.

HPER-232. Current Trends in Health

Ms. Boyd

An examination of past, present, and future health-care situations faced by today's consumer. This course will include information on products, services, and treatments in the health-care environment. Prerequisite: HPER132 or permission of the instructor. Three hours per week. Three semester hours.

HPER-241. Outdoor Education

Mr. Whatley

This 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.

HPER-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.

HPER-243. Recreation and Leisure in a Modern Society

Dr. Borsdorf

A study of the scope and significance of recreation field services, their history, and development. Theories and values of recreation, play, and leisure in relation to the wellness movement will be explored. Three hours per week. Three semester hours.

HPER-268. Introduction to Sports Injury Management

Ms. Chlad

This course deals with the prevention, mechanisms, and evaluation of all types of common injuries. Basic athletic training treatments and preventative support for injuries are emphasized. Two hours lecture and two hours laboratory per week. Three semester hours.

HPER-333. Alcohol and Drugs—Use and Abuse

Staff

The significance of drug and alcohol use and abuse in society is analyzed. The etiology of health problems related to these substances is emphasized, including the prevention, intervention, treatment, and rehabilitation of drugs and alcohol abuse. Three hours per week. Three semester hours.

HPER-334. Nutrition and Weight Control

Ms. Chlad

The relationship between nutrition, exercise, and weight control will be examined from various perspectives: scientific principles, consumer protection, and holistic health concepts. The course will explore the principles of nutrition and the process of metabolism. Three hours per week. Three semester hours.

HPER-346. Fitness/Exercise Program Management

Dr. Borsdorf

A general survey of the exercise and fitness movement. Methods and techniques of teaching, terminology, and history will be examined. Particular attention is given to various individual and team program development. Three hours per week. Three semester hours.

HPER-347. Wellness/Fitness for an Adult Population

Dr. Borsdorf

An analysis of the techniques used to confront the problems and needs of an adult population through wellness/fitness services. The course includes assessment techniques, program design, and exercise prescription. Three hours lecture, three hours laboratory. Four semester hours.

HPER-351. Structural Kinesiology and Biomechanics

Dr. Wailgum

A study of the anatomy of the musculoskeletal system essential for understanding human movement, with emphasis on the relationship of anatomic structure to function. Prerequisite: Biology 317, 318. Two hours lecture, two hours laboratory. Three semester hours.

HPER-352. Exercise Physiology/Human Performance

Dr. Wailgum

The study of the physiological alterations and adjustments which occur in response to physical performance. Prerequisites: Biology 317-318. Three hours lecture and two hours laboratory. Four semester hours.
HPER-355. Methods of Teaching Health and Physical Education  
Dr. Swalm  
Principles, methods, and problems of teaching health and physical education at the elementary and secondary levels. The course includes extensive training in the spectrum of teaching styles, macro- and micro-teaching, unit and lesson planning, basic curriculum design and process-product analysis of learning episodes. Open only to physical education majors or students who have completed six hours in education. Two hours lecture and two hours laboratory. Three semester hours.

HPER-362W. Measurement and Evaluation in Human Performance  
Dr. Swalm  
Concentration on measuring human performance in the cognitive, psychomotor, and affective domains. Utilization of statistical procedures specifically designed for the behavioral sciences; analysis of data through the use of computers; evaluation of results relevant to objectives; and participation in field experiences with standardized testing. Prerequisite: English 100. Three hours per week. Four semester hours.

HPER-363. Officiating  
Staff  
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 hours per week. Three semester hours.

HPER-365. Philosophy and Principles of Coaching  
Mr. Whatley  
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.

HPER-366. Sports Psychology  
Staff  
A study of the psychological aspects of sports with focus on understanding the emotional, attitudinal, and personality traits involved in athletics. Interaction among players and coaches, techniques which enhance performance, and problems which detract from optimal achievement are considered. The concepts of ‘‘imagery,’’ ‘‘peaking,’’ and ‘‘burnout’’ will be discussed as they relate to the psychological and technical preparation of the athlete and the team. Three hours per week. Three semester hours.

HPER-381. Internship in Wellness/Fitness Services  
Dr. Borsdorf  
An internship experience in a hospital, business, and/or geriatric care center with an emphasis on the concept of wellness. An 2.5 grade point average in HPER and the permission of the department are required. Three hours per week. Three semester hours.

HPER-412. Wellness/Fitness Practicum  
Dr. Borsdorf  
An off-campus academic/work experience in a community or corporate wellness/fitness setting. A research paper is required. Prerequisites: Limited to seniors with a 2.5 grade point average in HPER; Communication Arts 201; and permission from the department. Three hours per week. Three semester hours.

HPER-462. Administration of Health, Physical Education, and Recreation  
Dr. Davidson  
A study of the administrative theory, principles, and problems in health, physical education and recreation. Three hours per week. Three semester hours.

*This course is not offered in 1990-1991.*
HPER-464. Corrective and Adaptive Physical Education
Dr. Borsdorf
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.

HPER-465. Health and Physical Education Teaching Seminar
Dr. Swaim
Readings, discussions, and individual research focused on pedagogy, measurement and evaluation, or some other facet of teaching health or physical education. At the conclusion of the seminar students will present a research paper at an open meeting of the department. Prerequisite: This course can only be taken in conjunction with Education 405 and requires permission of the department. One hour per week. One semester hour.

NOTE: HPER 465 would be an elective course taken concurrently with Education 405. Students in the teaching track not selecting HPER 465 could complete the capstone requirement by scheduling HPER 466 or HPER 491.

HPER-466. Health and Physical Education Seminar
Ms. Boyd
Consideration of current trends and emphases in the fields of health, physical education and recreation. The class will consist of lectures, discussions, papers, reports, and guest speakers. A research paper is required. Prerequisites: Limited to second semester seniors majoring in HPER; Communication Arts 201. Three hours per week. Three semester hours.

HPER-468. Care and Prevention of Athletic Injuries Ms. Chlad
The course focuses on the prevention, conditioning, and rehabilitation of athletic injuries. Students will examine the various procedures and evaluation processes used following serious athletic trauma. The clinical uses of the various therapeutic aids are explored. Prerequisites: HPER 268 and Biology 317, 318. Three hours per week. Three semester hours.

HPER-482. Human Performance Practicum Dr. Wailgum
An off-campus academic/work related experience within the field of human performance which could take place in a hospital, corporation, clinic, or university setting. A research paper is required. Prerequisites: Limited to seniors with a 2.5 grade point average within the human performance concentration; Biology 317, 318; Communication Arts 201; and permission from the department. Three semester hours.

HPER-491. Research/Independent Work Staff
This course is open to candidates for departmental honors and to other students with a special interest in the field of health, physical education, and/or recreation. Prerequisite: the permission of the department chair. Three semester hours.

HPER-492. Research/Independent Work Staff
A continuation of course 491. Prerequisite: course 491. Three semester hours.

HISTORY
Professors Akin, Doughty, Visser (Chairperson), Associate Professor Clark; Assistant Professors Hemphill, King.
To study history is to study the powerful interaction between the past and the present. The goals of the history department are three-fold: first, to convey an understanding of the meaning of history and knowledge of its methodology; second, to nurture students' abilities to read critically, write clearly, reason logically and inferentially; and third, to offer the multi-cultural historical perspective that is necessary to understand the human condition and contemporary world affairs.
In addition to acquiring sound communication skills, history majors learn how to work with a vast variety of evidence, and how to evaluate the results. Moreover, the study of history is wide-ranging, as it connects all aspects of the present with the past. For these reasons, not only are there many career opportunities for history majors, but a minor in history can be combined with almost any other field.

History is good training for careers in law, business, government, the foreign service, journalism, and publishing. Moreover, those who wish to continue in history will find opportunities in teaching, historical preservation, and both management and interpretation in historical museums, sites, archives, and libraries. Historians also write and edit publications and manage archives for the government, publishers, and many businesses. These and other career options aside, the fundamental fact, recognized by the history department and employers alike, is that a consciousness of history and its critical skills is not luxury, but a vital part of a liberal education.

Requirements for Majors
The following requirements must be fulfilled: History 200; 221; one from 202, 205, 207, 210; one from 241, 243, 251, 253; one from 302, 304, 305, 308; one from 321, 323, 325, 327, 328; one from 342, 344, 352; one from 361, 362, 364, 366; one seminar or 491.

Students interested in becoming secondary school teachers should consult the education department booklet, Ursinus College Teacher Education Programs.

Requirements for Minors
Students seeking a minor in history must take a minimum of 20 credits in the department, including History 200 and one 400 level research course. Students interested in minoring in history must register with Dr. Visser to plan their course of study and should not register for 200 until they have done so.

HIST–101. The History of Traditional Civilizations Staff
An introductory survey of the origins, development and achievements of the world's major civilizations, with emphasis on the comparative study of their respective ideas and institutions and on the early interaction among their societies. Significant selected primary sources will be assigned and short analytic papers are required. Two hours of lecture and one hour of discussion per week. Four semester hours.

HIST–102. The Emerging World Staff
An introductory survey of the development and transformation of the world's major civilizations in the modern era, with emphasis on the process of social, economic and political change; on the rise of "the West" to global dominance and its impact on other societies; and on the mutual interdependence of contemporary civilization. Significant selected primary sources will be assigned and short analytic papers are required. Two hours of lecture and one hour of discussion per week. Four semester hours.

HIST–200W. Historiography Staff
An introduction to the major issues and practices in the study of history. The course will include material on the "history of
HISTORY

HIST-202. Topics in Medieval History
Dr. Visser
An examination of the development of the ideas and institutions that controlled Medieval society. Relevant writings in translation will be used. Four hours per week. Alternates with 251. Four semester hours.

HIST-205. Russia and The USSR
Dr. King
An examination of major political, social, economic, and cultural themes in the history of Tsarist Russia and the Soviet Union. Four hours per week of lectures and discussion. Four semester hours.

HIST-207. The Century of Total War
Dr. Doughty
A survey of modernization and international conflict during the last century, with emphasis on the origins and consequences of the two World Wars in Europe and Asia. Imperialism, nationalism, mass society, totalitarianism and major social and economic developments will also be examined. Four hours per week of lectures and discussion. Four semester hours.

HIST-210. The Making of Modern Britain
Dr. Doughty
A survey of British history from the Middle Ages to the 20th century, with emphasis on the social, cultural and economic foundations of English political institutions. The development of the British monarchy and representative institutions, the origins and consequences of the Industrial Revolution, the expansion of the British Empire and the 19th and 20th century struggles for class and gender equality will be among the topics studied. Four hours per week of lectures and discussion. Four semester hours.

HIST-221. Introduction to American History
Dr. Akin, Dr. Hemphill
A survey of American history from the beginning of European settlement to the present, with an emphasis on the main themes of political and social development (the latter to include an analysis of the variables of race, class, region, ethnicity and gender). Four hours per week of lectures and discussion. Four semester hours.

HIST-241. An Introduction to the History and Culture of China
Dr. Clark.
An introduction to Chinese history, with particular emphasis on late traditional (post-1600) cultural and social orders and their adaptation to the modern world up to and including the Chinese Revolution. Four hours per week. Four semester hours.

HIST-243. An Introduction to the History and Culture of Japan
Dr. Clark
An introduction to Japanese history, with particular emphasis on late traditional (post-1600) cultural and social orders, and their adaptation to the modern world through World War II and the post-war settlement. Four hours per week. Four semester hours.

HIST-251. Topics in Ancient History
Dr. Visser
An examination of the emergence of religious, legal and social concepts that became the basis of Western civilization. Relevant writings in translation will be used. Four hours per week. Alternates with 201. Four semester hours.

HIST-253. The Middle East
Dr. King
An introduction to Middle Eastern societies and civilizations from the founding of Islam to the problems of the contemporary Middle East. Four hours per week of lectures and discussion. Four semester hours.

HIST-300. Special Topics in History
Staff
An elective course dealing with special subject areas and periods. Three hours per week. (Not offered on a regular basis). Four semester hours.

HIST-302. Studies in the Renaissance Era
Dr. Visser
An examination of the cultural, economic, and social aspects of the Renaissance and their interdependence. Contemporary writings
HISTORY

will be used in translation. Three hours per week. Four semester hours.

HIST-304. Studies in Reformation History Dr. Visser
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. Four semester hours.

HIST-305. State and Society in Early Modern Europe Dr. Doughty
A study of early European modernization and the development of the sovereign state from the 16th through the 18th centuries. Theories of political sovereignty, the development of royal absolutism and concomitant religious, intellectual, social and economic transformations will be emphasized. Significant time will be devoted to the historiography of the period. Three hours per week of discussion of assigned reading. Four semester hours.

HIST-308. Nazi Germany and the Holocaust Dr. Doughty
A study of the rise of Adolf Hitler, the development of the National Socialist Party and the “Hitler State,” German society under the Nazis, and the origins and implementation of the racial and foreign policies of the Third Reich. Significant time will be devoted to the historiography of the subject. Three hours per week of discussion of assigned readings. Four semester hours.

HIST-321. Colonial and Revolutionary America Dr. Hemphill
A survey of the history of the British colonies in America, from their founding, through the War for American Independence. Special attention will be given to the genesis of American culture and institutions from diverse societies. Significant time will be devoted to the historiography of the period. Three hours per week of lectures and discussion. Four semester hours.

HIST-323. The Young American Nation and the Civil War. Dr. Hemphill
A survey of the history of the new American nation from its initial foundation in the Constitution period through its testing in the Civil War. Special emphasis will be given to the development of uniquely American politics and culture. Significant time will be devoted to the historiography of the period. Three hours per week of lectures and discussion. Four semester hours.

HIST-325. The Emergence of Industrial America Dr. Akin
The course examines the United States from the end of the Civil War to the end of World War I. The course will focus on the interrelationships between economic changes and changes in social structures (including sex, age, class, and race), popular culture and thought, and politics. Prerequisite: History 221 or Politics 218, or Sociology 245. Three hours per week. Four semester hours. (given in alternate years.)

HIST-327. 20th Century America Dr. Akin
The course examines the United States from 1919 to the present. The course will focus on the interrelationships between changes in the economic structure, social structure, politics and popular culture and thought. Prerequisites: History 221, or Politics 218, or Sociology 245. Three hours per week. Four semester hours. (given in alternate years.)

HIST-328. Women in American History Dr. Hemphill
An examination of the changing experience of American women from colonial times to the present. The focus of this course will be the interaction of that experience with ideal roles for women in the realms of family, religion, politics, economics, and social life. Attention will also be paid to the interaction of gender with the variables of class, race, ethnicity, and region. Four hours per week of lectures and discussion. Four semester hours.

HIST-342. The 18th Century in China and Japan Dr. Clark
An in-depth and comparative look at late traditional culture in East Asia, including examination of the political structures, systems of thought and religion, social order, and economics. Three hours per week. Four semester hours.
HIST-344. Society and Revolution
Southeast Asia  Dr. Clark
An examination of the origins of conflict in Southeast Asia from the 19th century to the present. Will approach the issue from the perspective of the societies themselves in an attempt to understand the domestic stresses, resulting from both internal and external change, which produced the post-World War II upheavals, as well as the motivations of the Western powers that intervened. Three hours per week. Four semester hours.

HIST-352. Soviet Foreign Policy
Dr. King
An examination from a historical perspective of continuity and change in the goals and methods of Soviet foreign policy; ideology and national interest; the role of the international Communist movement; domestic source of Soviet international conduct; the Cold War, detente, the arms race, and recent developments. Extensive readings in historical and contemporary materials, written analyses and discussion of historical and contemporary issues. Three hours per week. Four semester hours.

HIST-361. East and West in the 13th Century
Dr. Clark
A comparison/contrast of China and Western Europe on the eve of such events as the Mongol invasions, the Black Death, and the like. The course will focus particularly on economic, social and institutional structures. Three hours per week. Four semester hours.

HIST-362. The Age of Revolution
Dr. Doughty
An examination of the "Dual Revolution"—the cumulative effects of the French and Industrial Revolutions —and the impact of political, economic and technological change on European society and the world in the period c. 1780 - 1800. Significant time will be devoted to the historiography of the topic. Three hours per week of discussion of assigned reading. Four semester hours.

HIST-364. Ideas and Ideologies
Dr. King
An exploration of selected movements in the history of modern European political and social thought. Specific content may vary, but will include such topics as liberalism, nationalism, racism, and socialism. Extensive readings in original sources, written analyses, and discussion. Three hours per week. Four semester hours.

HIST-366. History of the Family
Dr. Hemphill
A survey of the changing structure and function of the family in Europe and America from 1500 to the present. Special attention will be paid to the relationship between changes in the family and changes in the wider society; the family as the locus for changing gender and age relations; and the variations in family forms dictated by class, race, ethnicity, religion, and region. Three hours per week of lectures and discussion. Four semester hours.

HIST-381. History Internship
Staff
An off-campus academic/work experience under the supervision of an internship adviser and an on-site supervisor. Contact the chairman of the department for further details. Prerequisites: junior standing, 12 credits in history excluding 101, 102 and approval of a faculty internship adviser. Four semester hours.

HIST-400W. Research
Staff
Independent research, under the guidance of an adviser, directed toward the production of a historical project or paper. Open only to fourth-year students with the permission of the chair of the department of history. Prerequisites: Comm. Arts 201, History 200 or equivalent. Four semester hours.

HIST-401W. Seminar in European History
Staff
Readings and individual research on topics of European history, leading to preparation and discussion of research papers. Open to third- and fourth-year students. Prerequisites: Comm. Arts 201, History 200 or equivalent. With departmental permission, may be used to fulfill the advanced European history requirement. Three hours per week. Four semester hours.

HIST-421W. Seminar in American History
Staff
Readings and individual research on topics of American history, leading to preparation and
discussion of research papers. Open to third- and fourth-year students. Prerequisites: Comm. Arts 201, History 200 or equivalent. With departmental permission, may be used to fulfill the advanced American history requirement. Three hours per week. *Four semester hours.*

**HIST-442W. Seminar in East Asian, Middle Eastern, or African History**

Readings and individual research on topics of non-Western history, leading to preparation and discussion of research papers. Open to third- and fourth-year students. Prerequisites: Comm. Arts 201, History 200 or equivalent. With departmental permission, may be used to fulfill the advanced non-Western history requirement. Three hours per week. *Four semester hours.*

**HIST-462W. Seminar in Comparative History**

Readings and individual research on topics in comparative history leading to preparation and discussion of research papers. Open to third- and fourth-year students. Prerequisites: Comm. Arts 201, History 200 or equivalent. May be used, with departmental permission, to fulfill the advanced comparative history requirement. Three hours per week. *Four semester hours.*

**INTERNATIONAL RELATIONS**

*Professors Berry, Doughty; Associate Professor Clark (Coordinator); Assistant Professors O’Neill, Hood, Gasser, King.*

International relations majors become capable of living and working in a world-wide setting by developing an understanding of how that setting came to be and how its various political, economic, and social systems function. Competency in a foreign language is required.

**Requirements for Majors**

Students majoring in International Relations must take History 102 and the following core requirements: History 207; Politics 100, 242, and 252; Economics and Business Administration 100, 251, and 252; and two courses at the 200 level or above in a foreign language.

Students must select additional courses from two of the three following areas: history (two courses); politics (two courses); economics (two courses). Selections in history must be from the following: 205, 210, 241, 243, 253, 308, 344, 352. Selections in politics must be from the following: 344, 346, 347, 353, 355, 357, 442, 452. Selections in economics and business administration must be from the following: 308 or 309 plus one additional course from 308, 309, 314, and 328.

All majors are required to take a capstone course in either history, politics, economics and business administration or modern languages, or take International Relations 400W.

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All majors are required to take a capstone course in either history, politics, economics and business administration or modern languages, or take International Relations 400W.
IR-400W. Research in International Relations
This capstone course will require a series of short papers and a major research project. An oral presentation will be made before an upper-division course on the subject.
Prerequisites: English 100, Communication Arts 201. 3 hours per week. 4 semester hours.

LATIN
See Classical Studies

LIBERAL STUDIES
The goals of the Liberal Studies Seminar are 1) to develop a student’s ability to think critically through a pedagogy which stresses the intellectual process; 2) to foster the essential skills of critical reading, effective speaking, and clear writing; 3) to develop these skills within the intellectually challenging context of a broad theme relevant to the human condition; 4) to enable the student to make connections across the traditional disciplines.

All first-year students are required to enroll in a Liberal Studies Seminar during the fall or spring semester of their first year; transfer students may be exempted with the approval of the dean of the College.

All Liberal Studies Seminars will share common features. The enrollment will be limited to 15 students to provide an atmosphere conducive to discovery and inquiry. Faculty members from a variety of disciplines will lead students to reflect about significant issues that introduce them to the intellectual climate of the College. Reading assignments will consist of five or six books or their equivalents. Frequent writing and oral assignments will be required throughout the course.

For the 1990-91 academic year the course will be organized around the theme of Conflict and Creativity. Topics may include “Biotechnology: Its Development, Potential and Limitation;” “Utopias and Social Conflict;” “War and Gender in Literature” (see detailed listing in the Liberal Studies Seminar Brochure). While grounded in the expertise of individual professors, all of these topics or approaches to the main theme have interdisciplinary implications.

LS-100. Liberal Studies Seminar Staff
This seminar, required of all first-year students, is designed to develop the students’ ability to think critically and to write and speak effectively. In each seminar, organized around a common theme, students will explore an issue with interdisciplinary implications. Through the analysis of readings or other material such as films, intensive writing and group discussions, students will participate in the challenges of intellectual inquiry. Four hours per week. Four semester hours.
The general aims of the department of mathematics and computer science are (1) to give the students a grasp of the ideas and methods of mathematics and computer science; (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 students majoring in mathematics or computer science/mathematics, 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.

Requirements for Mathematics Majors

A student majoring in mathematics is required to take Physics 111, 112, and Math 111, 112, 211, 235, 236, 271, 311, 335, and also 491, or 492 or both 481 and 482.

Each major also is required to complete at least one of the following four area concentrations.

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

II. Applied Mathematics
This program is recommended for those planning to seek jobs in industry. The required courses are Math 214, 341, and either Math 342 or 462.

III. Mathematics Education
This program is recommended for those preparing to be teachers. The required courses are Math 322, 341, and at least one of 214, 321, 342, 382, 434. This concentration satisfies the mathematics part of certification requirements. Details may be obtained from the departments of mathematics and computer science or education.

Those students choosing the mathematics education concentration should consult the education department booklet, Ursinus College Teacher Education Programs.
IV. Computer Science
This program is recommended for those preparing for work in the computing field. The required courses are Math 272, 371, 372 and at least one of 373W, 374, 471, 472.

Requirements for Computer Science/Mathematics Majors
A student majoring in computer science/mathematics is required to take Physics 111, 112; Math 111, 112, 211, 235, 236, 271, 272, 371, 372, 373W, 374; at least one of Math 335, 341, 462 (Note: Math 214 is a prerequisite for 462;) either Math 471 or 472, and also Math 491 or 492 or both 481 and 482.

Note: Students who major in mathematics or computer science/mathematics are encouraged to elect either a minor in another discipline or additional courses in mathematics and computer science. The latter is especially recommended for students planning to do graduate work in mathematics or a related discipline.

Interdisciplinary Major
The mathematics and computer science department participates in an interdisciplinary major in applied mathematics/economics. For additional information and course requirements, see the listings under combined majors, page 147.

Minor Concentrations
A minor concentration in computer science consists of Math 111; 112; 236; 271; 272; and two courses chosen from 371, 372, 373, 374.

A minor concentration in mathematics consists of Math 111, 112, 211, 235; and two additional courses in mathematics, chosen from 214, 236, 311W, 312, 321, 322, 335, 336, 341, 342, 411, 434, 462, at least one of these courses being at the 300 or 400 level.

A minor concentration in statistics consists of Math 111, 112, 211, 242, 341, 342.

MATH–100. Mathematics for the Liberal Arts Staff
A cultural and historical approach to mathematics. Appreciation of the beauty and creative aspects of mathematics and its role in nature and the arts. Essay tests and papers as well as problems using deductive reasoning. Offered in the spring of even years. Three hours per week. Three semester hours.

MATH–105. Calculus for Economics and Business Staff
Conceptual understanding of differential and integral calculus. Some classical applications as well as applications to economics and business. Offered both semesters. Four hours per week. Four semester hours.

Note: A student may not receive credit for both Math 102 and 105 or for both Math 105 and 111. A student who has received credit for Math 102 or 111 may not enroll in Math 105.

MATH–108. Humanistic Calculus Dr. Rosenthal
An overview of the calculus from a conceptual and historical perspective. The limiting, integration, and differentiation processes treated within a framework of
meaning and verbal description rather than calculation and symbolism. Topics include Eudoxus’ theory of exhaustion, the definition of real number, Cavalieri’s Theorem, medieval discussions of motion, and the Fundamental Theorem of Calculus. (Assumes a knowledge of three years of high school mathematics.) Offered in the spring of odd years. Three hours per week. Four semester hours.

Note: A student who has received credit for Math 111 may not enroll in Math 108.

MATH–110. Precalculus Mr. BreMiller
A review of algebra, functions and graphs, exponential and logarithmic functions, circular and trigonometric functions. This course prepares the student for Math 111. Offered in the fall semester. Three hours per week. Three semester hours.

Notes: A student may not receive credit for both Math 101 and 110. This course does not satisfy the college mathematics requirement.

MATH–111. Calculus I Staff
Limits; derivatives; applications of derivatives; integrals; trigonometric, logarithmic, and exponential functions and their applications. Prerequisite: placement based on the mathematics diagnostic test, or a grade of C- or better in Math 110. Offered both semesters. Four hours per week. Four semester hours.

Note: A student may not receive credit for both Math 102 and 111 or for both Math 105 and 111. A student who has received credit for Math 111 may not enroll in Math 105.

MATH–112. Calculus II Staff
A continuation of Math 111. Inverse trigonometric functions, techniques of integration, applications of integration, improper integrals, indeterminate forms, polar coordinates, parametric equations, infinite sequences and series. Prerequisite: a grade of C- or better in Math 111 or permission of the department. Offered both semesters. Four hours per week. Four semester hours.

MATH–171. Introduction to Computer Science Mr. BreMiller
An introduction to the methods and concepts of computer science through computer programming. The design of structured algorithms and their implementation in a high-level language. Recommended for those who want to use programming outside of the natural sciences. Three hours per week. Four semester hours.

Note: A student may not receive credit for both Math 171 and Math 271.

MATH–211. Multivariate Calculus Dr. Fife, Dr. Shuck
Functions of several variables, including three-dimensional geometry and vectors, partial differentiation, multiple integration, line and surface integrals, the theorems of Green, Guass, and Stokes. Prerequisite: a grade of C- or better in Math 112 or permission of the department. Offered both semesters. Four hours per week. Four semester hours.

MATH–214. Differential Equations and Mathematical Models Staff

Note: Students with credit for Math 212 may not enroll in Math 214.

MATH–235. Linear Algebra Dr. Fife
Systems of linear equations, matrix theory, real vector spaces, linear transformations, eigenvectors and eigenvalues, inner products, orthogonal transformations, quadratic forms, applications. The computer as a computational tool. Prerequisite: Math 112 or permission of the instructor. Three hours per week. Four semester hours.

MATH–236. Discrete Mathematics Dr. Hagelgans
A course designed to bridge the gap between computation-oriented introductory courses and
proof-oriented advanced courses. The language of contemporary mathematics, including the proper way to write mathematics, and the nature of mathematical reasoning. Extensive outside projects. Topics studied may include axiomatic systems, logic, set theory, functions, mathematical induction, graph theory and trees. Prerequisite: Math 112. Three hours per week. *Four semester hours.*

**MATH-241Q. Statistics I**  
*Staff*  
Statistical methods of studying data, measures of central tendency and dispersion, probability, and distributions including: binomial, normal, and Student’s t; confidence intervals and hypothesis testing. Computer statistical packages. Offered both semesters. Four hours per week. *Four semester hours.*

**MATH-242. Statistics I**  
*Dr. Neslen*  
A continuation of Math 241. The Riemann integral. Functions of several variables, vector calculus, the inverse and implicit function theorems. Prerequisite: Math 235, 311, and either 236 or permission of the instructor. Offered in the spring of odd years. Three hours per week. *Three semester hours.*

**MATH-271. Computer Science I**  
*Dr. Coleman, Dr. Neslen*  
Problem-solving methods and algorithm development. Computer programming with a high-level language. Design, coding, debugging, and internal and external documentation of programs. Emphasis on developing good programming style. Programming projects of increasing complexity. Recommended for students in mathematics and the natural sciences. Offered both semesters. Three hours per week. *Four semester hours.*

Note: A student may not receive credit for both Math 171 and Math 271.

**MATH-272. Computer Science II**  
*Dr. Coleman*  
A continuation of Math 271. Introduction to algorithm analysis and data structures. Larger programs. Team projects and/or incremental projects. Prerequisite: Math 271. Three hours per week. *Four semester hours.*

**MATH-311W. Introduction to Analysis I**  
*Mr. BreMiller*  
An introduction to the real number system and theoretical treatment of limits, continuity, and differentiability. Additional topics may include sequences and series, abstract metric spaces, and countability. Emphasis on writing mathematical proofs. Prerequisites: English 100, Math 211 and 236. Three hours per week. *Four semester hours.*

**MATH-312. Introduction to Analysis II**  
*Dr. Rosenthal*  
A continuation of Math 311. The Riemann integral. Functions of several variables, vector calculus, the inverse and implicit function theorems. Prerequisite: Math 235, 311, and either 236 or permission of the instructor. Offered in the spring of odd years. Three hours per week. *Three semester hours.*

**MATH-321. Introduction to Topology**  
*Dr. Hagelgan*  
Elementary point set topology; metric spaces; topological spaces, separation axioms, compactness, connectedness. Prerequisite: Math 236 or permission of the instructor. Offered in the fall of odd years. Three hours per week. *Three semester hours.*

**MATH-322. Fundamentals of Geometry**  
*Mr. BreMiller*  
Axiomatic development, introduction to non-Euclidean geometry, projective geometry and modern geometry. Prerequisite: permission of the instructor. Offered in the spring of odd years. Three hours per week. *Three semester hours.*

**MATH-335. Abstract Algebra I**  
*Dr. Neslen*  
An introduction to algebraic structures, with emphasis in the first semester on groups. Subgroups, quotient groups, homomorphisms, isomorphism theorems, Cayley’s theorem, permutation groups. Offered in the spring semester. Prerequisites: Math 235 and 236. Three hours per week. *Three semester hours.*
MATH–336. Abstract Algebra II  
Dr. Shuck
A continuation of Math 335. Ring theory, integral domains and principal ideal domains, polynomial rings, fields leading to Galois theory and solvability by radicals. Classical origins of modern abstract algebra. Prerequisite: Math 335. Offered in the fall semester. Three hours per week. Three semester hours.

MATH–341. Probability  
Dr. Coleman
An introduction to probability theory, discrete and continuous probability distributions, moments and moment-generating functions of random variables, transformations of random variables. Prerequisite: Math 211. Four hours per week. Four semester hours.

MATH–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: Math 341. Three hours per week. Three semester hours.

MATH–371. Data Structures and Algorithms  
Dr. Shuck
Complexity of algorithms, searching and sorting algorithms, tree and graph traversal algorithms. Additional topics chosen from mathematical algorithms for matrices and polynomials, NP-complete problems and intractable problems. Offered in the fall of odd years. Prerequisites: Math 236 and 272. Three hours per week. Three semester hours.

MATH–372. Computer Organization  
Dr. Hagelgans
Hierarchical structure of computer architecture, number systems, arithmetic operations, codes, switching algebra, logic gates, assembly language programming. Prerequisite: Math 236 and Math 171 or 271. Offered in the spring of even years. Three hours per week. Three semester hours.

MATH–373W. Theory of Computation  
Dr. Hagelgans
Principles of formal languages, automata, computability and computational complexity. Emphasis on writing proofs of theorems. Prerequisites: English 100, Math 236 and 272. Offered in the fall semester of even years. Three hours per week. Four semester hours.

MATH–374. Principles of Programming Languages  
Dr. Hagelgans
Syntax, processors, representations and styles of programming languages. Study and comparison of several modern programming languages. Offered in the spring of odd years. Prerequisites: Math 236 and 272. Three hours per week. Three semester hours.

MATH–381. Internship  
Dr. Hagelgans
An off-campus academic/work experience under the supervision of an internship adviser and an on-site supervisor. Contact the chair of the department for further details. Prerequisites: junior standing, nine credits in mathematics and/or computer science, and approval of a faculty internship adviser. Eight to 10 hours per week. Three semester hours.

MATH–382. History of Mathematics  
Mr. BreMiller
Mathematical thought from ancient times to the early 1800s. Topics from the modern era may be included. Prerequisite: permission of the instructor. Offered in the spring semester of even years. Three hours per week. Three semester hours.

MATH–411. Functions of a Complex Variable  
Dr. Shuck
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: Math 211. Offered in the fall semester of even years. Three hours per week. Three semester hours.

MATH–434. Theory of Numbers  
Dr. Neslen
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. Prerequisite: permission of the instructor. Offered in the spring semester of even years. Three hours per week. Three semester hours.
*MATH-451. Topics in Advanced Mathematics I

Dr. Rosenthal

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: permission of the instructor. Three hours per week. *Three semester hours.*

*MATH-452. Topics in Advanced Mathematics II

Mr. BreMiller

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 student’s preferences and needs. Prerequisite: permission of the instructor. Three hours per week. *Three semester hours.*

*MATH-462. Numerical Analysis

Dr. Jessup

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: Math 214 and an ability to program. Offered in the fall semester of even years. Three hours per week. *Three semester hours.*

MATH-471. Topics in Computing I

Dr. Hagelgans

A detailed study of some advanced topics in computer science such as file and data base management, operating systems, compiler design and formal languages. Prerequisite: Math 272 and written permission of the instructor. Offered in the fall semester of odd years. Three hours per week. *Three semester hours.*

MATH-472. Topics in Computing II

Dr. Jessup

The course will cover topics similar to those listed in Math 471. Prerequisites: Math 272 and written permission of instructor. Offered in the spring semester of odd years. Three hours per week. *Three semester hours.*

*MATH-481. Senior Seminar I

Topics in mathematics and computer science integrating students’ previous experiences. Papers and oral presentations by students. Corequisite: Math 311 or 373. Prerequisite: Communication Arts 201. Offered both semesters. One hour per week. *One semester hour.*

*MATH-482. Senior Seminar II

Same as Math 481. Prerequisite: Math 481. One hour per week. *One semester hour.*

MATH-491. Research/Independent Work Staff

Independent investigation of an area of mathematics or computer science not covered in regular courses. An oral report describing the work must be presented to the department. Prerequisite: written consent of a member of the staff to serve as an adviser and Communication Arts 201. *Three semester hours.*

MATH-492. Research/Independent Work Staff

Content and prerequisites as in Math 491. *Three semester hours.*

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*This course is not offered in 1990-1991.

MODERN LANGUAGES

Professors Clouser, Espadas (Chairperson) Lucas; Associate Professors Eaton, Hall, Novack, Thelen; Assistant Professor Cameron; Instructors Dezawa, Rojas; Lecturers Roberts-Gassler, Tacelosky, Vitaglione.

The modern language department aims, in its elementary and intermediate courses, to develop the students’ linguistic ability and
understanding of a foreign culture and to introduce them to its literature. More advanced courses seek to perfect the use of the oral and written language, to study foreign societies and cultures, and to explore the foreign literature in order to develop faculties of analysis and aesthetic judgment.

Majors should enrich their studies with courses in other literatures and relevant languages, European history and thought, and the fine arts and music. Majors interested in international affairs, business or diplomacy should choose appropriate courses from the departments of economics and business administration, history and politics. Students planning to pursue graduate study are especially advised to take courses in a second foreign language, world literature and history, as appropriate. Similarly, students with international interests who are majors in other departments should formulate a minor in French, Spanish, or German, to suit their goals.

Requirements for Majors (see Individual languages)

Students planning to obtain certification for secondary school teaching in French, German or Spanish must take a minimum of 28 credit hours in French, German or Spanish at the 200, 300 and 400 levels. The following courses are required: French, German or Spanish 205, 206, 313, or 314; 328, and at least two 300 or 400 level courses. Students seeking certification in Japanese are required to take the following courses: Japanese 201, 202, 301, 328; History 243; or Politics 346; East Asian Studies 204; and East Asian Studies 299, or 314, or 401, pending approval by the Pennsylvania Department of Education. In addition to the course requirements, students are required to pass a qualifying examination before they will be admitted to candidacy for certification and a competency examination before being certified. These tests will examine students' linguistic competence, orally and in writing, testing phonetics, conversation, grammar and composition. The exit exam will also check their knowledge of French, German, Japanese, or Spanish literature and culture, including the arts, history and geography. Students and their advisers should consult the education department booklet: Ursinus College Teacher Education Programs.

The varied activities of the language clubs add to the department's offerings. Language majors and students preparing for certification are required to supplement their work at Ursinus by spending a summer, a semester or an entire year in a foreign country with a program approved by the department. Exceptions to this policy may be made by petition to the chairperson of the department.

Students who wish to satisfy the language requirement in a modern language will be placed in the appropriate language class based on background and the results of the Foreign Language Diagnostic Test.
Requirements for Minors

A minor concentration in French consists of 205, 206 and 12 additional credits of French at the 200, 300 or 400 level.

A minor concentration in German consists of German 205, 206, and 12 additional credits of German at the 200, 300 or 400 level.

A minor concentration in Spanish consists of Spanish 205, 206, and 12 additional credits of Spanish at the 200, 300 or 400 level, excluding Spanish 332.

A minor concentration in Latin American studies consists of Spanish 206, 332, Anthropology 221; and two of the following courses: Spanish 200, 313, 314, 351, 352. Politics 242, 344, 355.

ENGLISH FOR SPEAKERS OF OTHER LANGUAGES

The ESOL course is meant to be taken during the first year at Ursinus during which many foreign students may have adjustment problems.

ESOL–100. English for Speakers of Other Languages Ms. Tacelosky
A developmental course for non-native speakers. Introduction to the structure and style of American academic English. Review of grammar to perfect oral and written communication. 4 hours per week plus one hour of tutoring per week. Four semester hours.

FRENCH

French majors are required to take at least 36 credit hours in French language, literature, and civilization above the 100 level. French 205, 206, and one 400 level W course are required.

FREN–100. Intensive Elementary French Staff
An intensive introduction to French with particular emphasis on comprehension and speaking. Five hours per week plus one hour of language laboratory per week. Four semester hours.

FREN–111. Intermediate French I Staff
Conversation and vocabulary development; grammar review, written work and discussions are based on cultural, social and literary selections. Prerequisite: French 100 or equivalent. Four hours per week plus one hour of language laboratory per week. Four semester hours.

FREN–112. Intermediate French II Staff
Continued emphasis on comprehension and speaking. Reading in literary and cultural texts and longer writing assignments. Prerequisite: French 111 or equivalent. Four hours per week plus one hour of language laboratory per week. Four semester hours.

FREN–201. Conversation and Composition Dr. Hall
Intensive review of grammar to perfect oral and written communication. Discussion of literary texts, newspaper articles and films. Prerequisite: French 112 or equivalent. Four hours per week plus one hour of laboratory per week. Four semester hours.

FREN–202. Topics in French Literature and Culture Dr. Hall
Topics, to be determined by interests of students and faculty may include the absurd, La Francophonie, the family, the short story, the fantastic as reflected in literature and/or film. Prerequisite: French 201 or permission of instructor. Four hours per week plus one hour of laboratory per week. Four semester hours. Course can be repeated twice but may be counted only once toward the major.
FREN-205. Literature from the Middle Ages to the 19th Century  
Dr. Lucas/Dr. Novack
Major French writers from the Middle Ages to the Revolution and their contribution to world culture. Prerequisite: French 112 or equivalent. Four hours per week. Four semester hours.

FREN-206. 19th and 20th Century Literature  
Dr. Hall
Major French and francophone writers of the 19th and 20th centuries and their contribution to world culture. Prerequisite: French 112 or equivalent. Four hours per week. Four semester hours.

All 300-level courses are offered in rotation.

FREN-313. French Culture and Society  
Dr. Lucas
A study of France from the Old Regime to the Second World War. Students will examine social conditions, artistic achievements, and intellectual and philosophical developments. In addition to basic texts, films, slides and original documents will be utilized. Writing assignments and oral presentation are required. Prerequisite: Two courses at the 200 level or permission of the instructor. Four hours per week. Four semester hours.

FREN-314. France Today  
Dr. Hall
A study of the forces of change and tradition in contemporary French society through an examination of the political, social and cultural developments of the past 30 years. Prerequisite: Two courses at the 200 level or permission of the instructor. Four hours per week. Four semester hours.

FREN-318. Economic and Commercial French  
Dr. Novack
Introduction to the economy, business organization and commercial practices of France and French-speaking countries, and to France’s place in the European community. Prerequisite: French 201, 202 or permission of the instructor. Four hours per week. Four semester hours.

FREN-328. Advanced Grammar and Translation  
Dr. Novack
French phonetics, morphology and syntax, with emphasis on problems related to the teaching of the language. Frequent translations focus on structural differences between French and English. Prerequisite: Two semesters at the 200 level. Four hours per week. Four semester hours.

FREN-335. Independent Study in French  
Staff
Individual study of topics in French literature and civilization. Prerequisites: Two 200 level courses and permission of instructor. Two-to-four semester hours.

FREN-340. 20th-Century Novel  
Dr. Hall
The development of the French novel of the 20th century from Proust to the writers of the new novel. Authors studied include Colette, Malraux, Sartre, Camus, Beauvoir, Duras and others. Prerequisites: French 205, 206 or permission of the instructor. Three hours per week. Four semester hours.

FREN-350. 19th Century Novel  
Dr. Novack
The evolution of the French novel with emphasis on Stendhal, Balzac, Flaubert and Zola. Prerequisites: French 205, 206, or permission of the instructor. Three hours per week. Four semester hours.

FREN-360. 18th-Century Literature  
Dr. Novack
Human nature, liberty, reason and their limits as seen in Enlightenment writing before the Revolution of 1789. Readings from Voltaire, Diderot, Rousseau, Laclos and others. Prerequisites: French 205, 206 or permission of the instructor. Three hours per week. Four semester hours.

FREN-370. 17th Century Classicism  
Dr. Novack
Classical French literature with emphasis on the theater of Corneille, Moliere and Racine. Prerequisites: French 205, 206 or permission of the instructor. Three hours per week. Four semester hours.

FREN-381. Internship  
Staff
An off-campus academic/work experience under the supervision of an internship advisor
and an on-site supervisor. Contact the chair of the department for further details. Prerequisites: Junior standing, three courses in French, and approval of a faculty internship adviser. Eight to ten hours per week. Three semester hours.

FREN-440W, 441W. Seminar in French Literature Staff
These courses are offered on a rotating basis and subjects will be determined according to students' background and interest. The seminars will take a thematic approach to literature and topics will include the following: "Literature at Versailles;" "Love in the Middle Ages and the Renaissance;" "The Poetic Quest: Baudelaire, Verlaine, Rimbaud;" "La condition feminine: Pisan, Sand, de Beauvoir;" "The comic tradition; Littérature engagée." This is a writing-intensive course and formal oral presentations are required. These courses satisfy the College requirement of a capstone experience.

GERMAN majors are required to take a minimum of 36 credit hours in German beyond the 100 level. German 205, 206, and either 401W or 402W or 403W are required.

GER-100. Intensive Elementary German Staff
An intensive study of the German language with special emphasis on the development of listening skills and oral communication. Five hours plus one hour of language laboratory per week. Four semester hours.

GER-111. Intermediate German I Staff
A review of basic grammar concepts and a development of listening and communication skills. Texts of contemporary social and cultural interest provide the focus for class discussion and writing exercises. Prerequisite: German 100 or equivalent. Four hours plus one hour of language laboratory per week. Four semester hours.

GER-112. Intermediate German II Staff
A continuation of German 111. A review of selected advanced grammar concepts and further development of listening and communication skills. Longer literary texts are discussed. Prerequisite: German 111 or equivalent. Four hours plus one hour of language laboratory per week. Four semester hours.

GER-101. Conversation and Composition I Dr. Clouser
Intensive review of grammar to perfect oral and written communication. Literary texts, newspaper articles, and German films will be discussed. Formal and informal writing exercises will be assigned. Students are required to attend one conversation hour per week with a native speaker. Prerequisite: German 112 or equivalent. Four hours per week. Four semester hours.

GER-201. Conversation and Composition II Dr. Thelen
Readings focus on a selected theme or topic. Students are required to attend one conversation hour per week with a native speaker. Prerequisite: German 112 or equivalent. Four hours per week. Four semester hours.
GER-205. German Literature I  
Dr. Thelen  
A survey of German literature from the Middle Ages to the Reformation. Prerequisite: German 112 or equivalent. Four hours per week. Four semester hours.

GER-206. German Literature II  
Dr. Clouser  
A survey of German literature from the Baroque to the 20th century. Prerequisite: German 112 or equivalent. Four hours per week. Four semester hours.

GER-208. Scientific German  
Dr. Clouser  
Reading of classical and contemporary scientific literature. This course is open, however, to all students. Prerequisites: Physics 111, or Biology 111, or Chemistry 111; German 111 or permission of instructor. Three hours per week. Four semester hours.

300- and 400-level courses are offered in rotation.

GER-311. German Studies in Literature  
Dr. Clouser  
Topics vary. Prerequisite: two of the following courses: German 201, 202, 205, 206 or permission of instructor. Three hours per week. Four semester hours.

GER-314. German Studies in Literature and Culture  
Dr. Thelen  
A study of German cultural, intellectual, and artistic life from the Middle Ages to the present. Original texts, slides and films supplement the readings. Prerequisites: German 201, 202 or permission of instructor. Four hours per week. Four semester hours.

GER-318. Commercial and Economic German  
Staff  
A study of the vocabulary, dynamics, and cultural customs of business practices in Germany. Special emphasis will be on conventions of correspondence and on understanding contemporary commercial and economic articles. Prerequisite: German 201 or permission of the instructor. Three hours per week. Four semester hours.

GER-319. Contemporary German Literature  
Dr. Thelen  
The 20th-century German short story. Representative short stories from Naturalism to the present with emphasis on the literature since 1945. Prerequisites: German 205, 206 or permission of the instructor. Three hours per week. Four semester hours.

GER-320. German Novelle  
Dr. Clouser  
History and development of the German novelle from Goethe to the 20th century. Prerequisites: German 205, 206 or permission of instructor. Three hours per week. Four semester hours.

GER-328. Advanced German Grammar  
Staff  
In-depth study of German phonetics, morphology and syntax with special emphasis on the problems related to the teaching of the language. Prerequisites: German 201, 202 or permission of instructor. Three hours per week. Four semester hours.

GER-381. Internship  
An off-campus academic/work experience under the supervision of an internship adviser and an on-site supervisor. Contact the chair of the department for further details. Prerequisites: junior standing, three courses in German, and approval of a faculty internship adviser. Eight to ten hours per week. Three semester hours.

GER-401W. German Medieval Studies  
Dr. Thelen  
Topics vary. This course satisfies the College requirement of a capstone experience. Prerequisites: English 100, Comm Arts 201, German 205, 206 or permission of instructor. Three hours per week. Four semester hours.

GER-402W. Classical Literature of the 18th and 19th Centuries  
Dr. Clouser  
Topics vary. This course satisfies the College requirement of a capstone experience. Prerequisites: English 100; Comm Arts 201; German 205, 206 or permission of instructor. Three hours per week. Four semester hours.

GER-403W. Advanced Seminar  
Staff  
Topics vary. This course satisfies the College requirement of a capstone experience. Prerequisites: English 100; Comm Arts 201; German 205, 206 or permission of instructor. Three hours per week. Four semester hours.
GER-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. This course does not satisfy the College requirement of a capstone experience. Four semester hours.

GER-492W. Research/Independent Work  
Staff

A continuation of course 491. This is a writing-intensive course and at least one formal oral presentation is required. This course satisfies the College requirement of a capstone experience. Prerequisites: English 100, Comm Arts 201, German 491 and permission of the department chairman. Four semester hours.

JAPANESE

The Japanese language courses are designed to develop linguistic skills and an understanding of Japanese culture. There is not a major in Japanese language, but the study of Japanese is recommended for students interested in East Asian Studies and international relations.

JAPN-100. Intensive Elementary  
Japanese  
Mr. Dezawa

An intensive study of the Japanese language with special emphasis on the development of listening skills and oral communication. Hiragana, one of the three ways of the Japanese writing system, is introduced. Five hours plus one hour of language laboratory per week. Four semester hours.

JAPN-111. Advanced Elementary  
Japanese I  
Mr. Dezawa

A review of basic grammar concepts and a development of communication skills. Special emphasis is placed on practical usage of the language in real situations. The Katakana syllabary is introduced to write loan words from the West. Prerequisite: Japanese 100 or equivalent. Four hours plus one hour of language laboratory per week. Four semester hours.

JAPN-112. Advanced Elementary  
Japanese II  
Mr. Dezawa

A continuation of Japanese 111. Acquisition of advanced grammar and further development of communication skills combined with expansion of vocabulary. Kanji, Japanese characters originally borrowed from Old China, are also a focus. Prerequisite: Japanese 111 or equivalent. Four hours plus one hour of language laboratory per week. Four semester hours.

JAPN-211. Intermediate Japanese  
Mr. Dezawa

Intensive review of grammar to better oral and written communication. The three major ways of Keigo, expressions to show proper respect and/or politeness in the hierarchical society of Japan, are intensively studied so that they can be used appropriately in various situations. Prerequisite: Japanese 111 or equivalent. Four hours plus one language laboratory per week. Four semester hours.

JAPN-212. Topics in Japanese Society, Culture and Literature  
Mr. Dezawa

Continuation of Japanese 211. A further development of reading skills is to be emphasized. Literary texts, newspaper/magazine articles, and Japanese films will be discussed with special focus on current issues. Prerequisite: Japanese 211 or equivalent. Four hours plus one hour of language laboratory per week. Four semester hours.

JAPN-301. Independent Study in Japanese  
Mr. Dezawa

Independent study of selected topics in Japanese. Periodic conferences and papers are required. May be taken more than once for credit. Prerequisite: Japanese 212 or permission of the instructor. Four semester hours.

JAPN-328. Advanced Japanese Language  
Mr. Dezawa

A study of linguistics, phonetics and grammar. Required of students seeking teaching certification in Japanese. Prerequisite: Japanese 212 or permission of the instructor. Four hours per week. Four semester hours.
SPANISH
Spanish majors are required to take a minimum of 36 credit hours in Spanish beyond the 100 level, excluding Spanish 332. Spanish 205, 206, and at least a 400 level W course are required.

SPAN-100. Intensive Elementary Spanish
An introduction to Spanish language with particular emphasis on comprehension and speaking. For students with little or no background in the language, the course emphasizes the basic structures of Spanish to prepare students for the intermediate courses. Five hours per week plus one hour of language laboratory weekly. Four semester hours.

SPAN-111. Intermediate Spanish I
A review of the basic grammatical structures of Spanish, with emphasis on the use of tenses and the subjunctive mood, vocabulary development through readings and use of authentic materials, and cultural and elementary literary readings. Prerequisite: Spanish 100. Four hours per week plus one hour of language laboratory weekly. Four semester hours.

SPAN-112. Intermediate Spanish II
Although Intermediate Spanish II is a continuation of Intermediate Spanish I, students may be placed in this course if they can demonstrate a good command of the basic structures of the Spanish grammar. The main focus of this course will be in the strengthening of vocabulary and the written command of the language, through the use of authentic materials, literary readings, and writing of short compositions. Prerequisite: Spanish 111 or equivalent. Four hours per week plus one hour of laboratory weekly. Four semester hours.

SPAN-118. Spanish for the Health Professions
This course is designed for students interested in medicine or an allied health field. Grammar review and vocabulary development will be emphasized through readings. Oral competency in the medical vocabulary and ability to respond in emergency circumstances are an extremely important part of the course. This course may be used toward fulfillment of the language requirement. Prerequisite: Spanish 111 or equivalent. Four hours per week. Four semester hours.

SPAN-200. Summer Study in Mexico
A four-week course including classroom study, family residence and travel in Mexico directed by members of the faculty. Offered annually. Prerequisites: Spanish 112, 118 or permission of instructor. Four semester hours.

SPAN-201. Conversation and Composition
Intensive review of the grammar to perfect oral and written communication. Materials used will be predominantly literary (short plays and short stories), but also journalistic. Writing will be both formal and informal. Students are required to attend one conversation hour per week in small groups with a native speaker assistant. Prerequisite: Spanish 112 or 118 or equivalent. Four hours per week. Four semester hours.

SPAN-202. Topics in Hispanic Literature and Culture
Continuation of Spanish 201. Topics, to be determined by interests of students and faculty, might include the short story, Spanish and/or Latin American film, class, gender, race relations as reflected in the literature and/or film, and others. Prerequisite: Spanish 201 or permission of the instructor. Four hours per week. Four semester hours.

SPAN-205. Survey of Spanish Literature
Study of major literary works and genres of Spain from the Middle Ages through the 20th century with special attention given to the literature of the Golden Age, the Generation of 1898, and the post-Civil War period. Prerequisite: Spanish 112 or equivalent. Four hours per week. Four semester hours.
SPAN–206. Survey of Latin American Literature Dr. Eaton
Study of major trends in Latin American literature from the Colonial period through the 20th century with emphasis on Latin America's progress toward artistic and literary independence from European models. Prerequisite: Spanish 112 or equivalent. Four hours per week. Four semester hours.

300- and 400-level courses are offered in rotation.

SPAN–313. Spain and Hispanic America to the end of the 18th Century Dr. Cameron
Spain and Hispanic America to the end of the 18th century. The development of Spanish Civilization as a conjunction of Eastern and Western experiences and its subsequent expansion and transformation in the Americas. Prerequisites: two of the following: Spanish 201, 202, 205, or 206 or permission of the instructor. Four hours per week. Four semester hours.

SPAN–314. Spain and Hispanic America since 1812 Dr. Espadas
The development of national identities as shaped by international socio-economic, political and cultural forces. Prerequisites: two of the following: Spanish 201, 202, 205 or 206 or permission of the instructor. Four hours per week. Four semester hours.

SPAN–318. Commercial and Economic Spanish Dr. Cameron
Introduction to the economic situation, business organization and commercial practices of the Hispanic world. Prerequisite: Spanish 201 or 202 or permission of the instructor. Four hours per week. Four semester hours.

SPAN–328. Advanced Spanish Grammar Dr. Espadas
In-depth study of Spanish phonetics, morphology and syntax with special emphasis on the problems related to the teaching of the language. Prerequisite: Spanish 201 or equivalent. Four hours per week. Four semester hours.

SPAN–332. Latin American Studies Dr. Cameron
(See also under Interdivisional Studies) An interdivisional approach to the study of Latin America. The development of the history, politics, society and literature of Latin American nations will be examined. Readings will be selected from the works of major intellectual figures and writers. Emphasis will be on the 20th century. Weekly lectures, films, and class discussions. The language of instruction is English. Open to upperclass students. Four hours per week. Four semester hours.

SPAN–351. Contemporary Hispanic Theater: History, Text and Performance Dr. Espadas
Study of Spanish and Spanish-American theater from the end of World War II to the present. The course will discuss the development of the genre, the structure of individual works, as well as the stage techniques. It will also include the production and performance of a short play. This course satisfies the fine arts requirement. Prerequisite: Spanish 205, 206 or permission of the instructor. Three hours per week. Four semester hours.

SPAN–352. Contemporary Hispanic Novel Dr. Cameron
Close readings from a variety of perspectives (including gender, race, class) of texts representing major trends in contemporary fiction (Spain and Latin America). Prerequisite: Spanish 205, 206, or permission of the instructor. Four hours per week. Four semester hours.

SPAN–381. Internship
An off-campus academic work/experience under the supervision of an internship adviser and an on-site supervisor. Contact the chair of the department for further details. Prerequisites: junior standing, three courses in Spanish, and approval of a faculty internship adviser. Eight to ten hours per week. Three semester hours.

SPAN–401W. Golden Age Literature Dr. Espadas
The picaresque, and the Comedia of the 16th and 17th centuries. This course satisfies the
College requirement of a capstone experience. Prerequisite: English 100, Comm Arts 201, Spanish 205, 206, or permission of the instructor. Four semester hours.

SPAN-402W. Cervantes Dr. Cameron Studies in the structure, sources and the impact of Cervantine prose, with emphasis on the Quijote. This course satisfies the College requirement of a capstone experience. Prerequisites: English 100, Comm Arts 201, Spanish 205, 206, or permission of the instructor. Four hours per week. Four semester hours.

SPAN-491. Research/Independent Work Staff This course is open to candidates for departmental honors and to other students with the permission of the department chair. This course does not satisfy the College requirement of a capstone experience. Four semester hours.

SPAN-492W. Research/Independent Work Staff A continuation of course 491. This is a writing-intensive course and at least one formal oral presentation is required. This course satisfies the College requirement of a capstone experience. Prerequisites: English 100, Comm Arts 201, Spanish 491 and permission of the department chairman. Four semester hours.

MUSIC

Associate Professor French, Assistant Professor Branker, Adjunct Faculty Bozorth (piano) and Dunkle (voice).

Requirements for Minor in Music History and Theory

A minor concentration in music history and theory consists of Music 100, 104 and four courses in music from the 200 level or above. At least one course at the 200 level in music history and one course at the 200 level in theory is required for the minor.

The music department offers private instruction in piano, voice organ, guitar, woodwinds, brass and percussion. Students register for lessons with the department chair before each semester begins. A semester fee of $180.00 is billed to the student for 14 half-hour lessons per semester.

MUS-100. Introduction to Music Mr. French A course in perceptive listening intended to heighten the student’s awareness and understanding of music through an examination of its basic elements — tone color, texture, melody, rhythm and style. The course involves intensive required listening assignments as a means of achieving the awareness and understanding of these elements. Three hours per week. Four semester hours.

MUS-104. Evolution of Jazz Styles Mr. Branker An introductory survey examining the historical development of jazz from its African origins through the present. The course will place emphasis on intensive listening assignments and research projects. Three hours per week. Four semester hours.

MUS-121. Fundamentals of Music Mr. Branker An introductory course in music theory which presents essential basic concepts, from standard notation and scales to harmonization and motivic structure. Additional emphasis on the acquisition of aural skills through ear training exercises. Three hours per week. Four semester hours.
MUS-201. Music of the Middle Ages, Renaissance and Early Baroque
Mr. French
A study of music from its early origins through 1650. Intensive listening assignments and research projects required in the course. Prerequisite: Music 100 or by permission. Three hours per week. *Four semester hours.*

MUS-202. Music of the Middle-Late Baroque and Classical Periods
Mr. French
A study of music from 1650 through 1825. Intensive listening assignments and research projects required in the course. Prerequisite: Music 100 or by permission. Three hours per week. *Four semester hours.*

MUS-203. Music of the Romantic Era
Mr. French
A study of music from 1825 through 1910. Intensive listening assignments and research projects required in the course. Prerequisite: Music 100 or by permission. Three hours per week. *Four semester hours.*

MUS-204. Music of the 20th Century
Mr. French
A study of music from 1910 to the present. Intensive listening assignments and research projects required in the course. Prerequisite: Music 100 or by permission. Three hours per week. *Four semester hours.*

MUS-222. Harmony
Mr. Branker
A study of the materials and practices of tonal harmony through the examination of the techniques of four-part writing. Additional emphasis on the acquisition of aural skills through ear training exercises. Prerequisite: Music 121 or by permission. Three hours per week. *Four semester hours.*

MUS-225. Jazz Theory
Mr. Branker
An exploration of the melodic, harmonic, and rhythmic principles of jazz. The course includes analysis of representative works by various jazz masters and will place a strong emphasis on student projects in composition and performance. Prerequisite: Music 121 or by permission. Three hours per week. *Four semester hours.*

MUS-307. Topics in Music History
Mr. French
A study of a specific period of genre of music such as the Second Viennese School, Late Beethoven, American Opera, and others. The course will place emphasis on independent research as well as required listening. Prerequisite: Appropriate 200-level music history course or by permission. Three hours per week. *Four semester hours.*

MUS-328. Topics in Music Theory
Mr. Branker
A study of a specific style or school of composition such as counterpoint, serial music, chromatic harmony and others. The course will place emphasis on independent research as well as required listening. Prerequisite: Appropriate 200-level Music Theory course or by permission. Three hours per week. *Four semester hours.*

MUS-401. Special Projects in Music
Staff
Advanced independent work on a creative, historical or theoretical project supervised and approved by a faculty adviser. *Four semester hours.*

ENSEMBLES

Note: A student may receive a maximum of four credits for participating in ensembles.

MUS-001-008 Ursinus College Choir
Mr. French
A large choral ensemble open to everyone in the College community. The College Choir performs three or four major works each year, including performances of Handel’s *Messiah* in the fall semester. Two hours per week. *One-half semester hour.*

MUS-011-018 Meistersingers
Mr. French
A small choral ensemble (approximately 35 voices) open by audition to students in the College Choir. Most of the ensemble’s performances, including a tour, take place in the spring semester. Two to three hours per week. *One-half semester hour.*
Chamber Singers  Mr. French  
A small, select group of eight to 12 Meistersingers which performs music of the 15th and 16th centuries. This group performs with the Meistersingers during the spring tour. Two hours per week.

MUS–021-028  Ursinus College Concert Band  Mr. Branker  
A large instrumental ensemble open to everyone in the College community. Members perform a variety of literature representing different stylistic periods. The Concert Band presents two major concerts each year and may appear at other campus functions. Two hours per week. one-half semester hour.

MUSIC/ PENNSYLVANIA GERMAN STUDIES

PENNSYLVANIA GERMAN STUDIES
Professor Snyder, Associate Professor Gallagher (coordinator).

The purpose of Pennsylvania German Studies (PGS) is to examine the origins and values of the Pennsylvania Germans (or Pennsylvania Dutch), their history, customs, arts and folklore. The program aims to increase awareness of cultural aspects of the Pennsylvania Germans; to compare their folk culture with that of other peoples. The Pennsylvania German archives in Myrin Library and the art and artifacts in the Berman Museum of Art offer special opportunities for study and enrichment. Arrangements can be made to study the Pennsylvania German dialect through the College Scholars Program.

Minor Concentration

A minor in Pennsylvania German Studies consists of Pennsylvania German Studies 100 and 13 additional credits in PGS.

PGS–100. Pennsylvania German Culture  Staff  
A study of the history, culture and societies of the Pennsylvania Germans, their influence on early American life and their adjustments to the modern world. Three hours per week. Three semester hours.

PGS–203. Pennsylvania German Folklife  Staff  
Classroom study and field techniques related to the folklore, folklife, and folk culture of the Pennsylvania Dutch country. Prerequisites: PGS 100, or Anthropology 100, or History 213. Three hours per week. Three semester hours.

PGS–204. Topics in Pennsylvania German Studies  Staff  
A course focusing on special topics in Pennsylvania German studies. Prerequisite: permission of instructor. Three hours per week. Three semester hours.

PGS–306. Pennsylvania German Art  Staff  
Pattern, symbolism and content in Pennsylvania German in folk art. Formal
painters of Pennsylvania German origin. Three hours per week. *Three semester hours.*

**PGS–310. Religious Experiences of the Pennsylvania Germans**  
*Staff*  
This course will examine the varieties of religious sects, denominations and institutions of the Pennsylvania Germans, their attitudes toward religion, as well as the transition to 20th century religious forms. Prerequisite: permission of instructor. Three hours per week. *Three semester hours.*

**PGS–351. Independent Study**  
*Staff*  
Research involves directed readings and research on a topic in Pennsylvania German Studies. Prerequisites: PGS 100 and permission of the instructor. *Three semester hours.*

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**PHILOSOPHY AND RELIGION**

*Professor Hardman, (Chairperson); Assistant Professor Goetz*

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.

The offerings of the department are open to all students, but will be of special interest to pre-theological students, pre-law students, prospective teachers in the fields of philosophy, religion and ethics, and all of those interested in the general humanities.

**Requirements for Majors**

Majors must take 36 hours of work within the department, including 101, 102, 211, 212, 301, 404, which are required. Each major is also encouraged to earn a minor in another field of study.

**Requirements for Minors**

A minor concentration in philosophy consists of 101, 102, 301, and three of the following: 302, 303, 304 and 305.

A minor concentration in religion consists of 101, 102, 211, 212, and two of the following: 214, 215, 216, 221, 223, and 224.

**PHIL–101. Origins of Philosophical Consciousness**  
*Dr. Hardman, Dr. Goetz*

A study of selected topics in philosophical thought from texts in both Western and non-Western cultures from primarily the ancient period through the 15th century. Philosophy 101 and 102 need not be taken in sequence. Three hours per week. *Four semester hours.*

**PHIL–102. Modern Philosophical Consciousness**  
*Dr. Hardman, Dr. Goetz*

A study of selected topics in philosophical thought from texts in both Western and non-Western cultures from primarily the 16th century to the present. Philosophy 101 is not a prerequisite. Three hours per week. *Four semester hours.*

**PHIL–103. General Problems of Philosophy**  
*Staff*

A study designed to orient the student with reference to perennial problems of philosophical inquiry. Intensive use is made of primary sources. Three hours per week. *Four semester hours.*
PHILOSOPHY AND RELIGION

PHIL-104. Contemporary Philosophy  
A study of late 19th century and 20th century philosophers and trends in philosophic thought beginning with Nietzsche and Moore. Intensive use is made of primary sources. Three hours per week. Four semester hours.

PHIL-211. World Religions  
An introduction to major living religions, with special attention to Oriental religions. An examination of the leading problems of religious thought, and to the alternative approaches of world religions to ultimate questions concerning the meaning of human life. Three hours per week. Four semester hours.

PHIL-212. Hebrew History and Scriptures  
Foundations of the Judeo-Christian tradition in the literature and thought of the Old Testament. Attention is given to the archaeological and historical background of the Old Testament, as well as to the biblical materials themselves. Three hours per week. Four semester hours.

PHIL-214. Introduction to Judaism  
Attention is given to the history, traditions, and literature of the Jewish people from their origins in the second millennium B.C.E. to the present day. Stress is given to specific religious concepts and teachings which are pertinent to modern times. Three hours per week. Three semester hours.

By means of various methods of study, the life and teachings of Jesus as set forth in the four Gospels are examined. Attention is given to the geography, politics, sociology, and religion of the first century A.D. Three hours per week. Four semester hours.

Attention is given to the life, ministry, and writings of Paul. The doctrinal, pastoral, and personal epistles of Paul are studied with reference to their historical settings, the organization of the Apostolic church, and the development of Christian doctrine. Three hours per week. Four semester hours.

PHIL-221. Religion in American Culture  
A systematic examination of religion in the United States as a philosophy of life, attitude, tradition, and organization. The beliefs and thoughts of Protestants, Catholics, and Jews from the colonial period to modern times are studied. Three hours per week. Four semester hours.

PHIL-223. The Christian Religious Tradition  
A survey of important thinkers, literature and movements typical of the Christian tradition through the 18th century. Careful study of Augustine, Abelard, Aquinas, Duns Scotus, Occam, Luther, Edwards and others is included. Three hours per week. Four semester hours.

PHIL-224. Literature and Religious Ideas  
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, and others. Three hours per week. Four semester hours.

PHIL-301. Logic  
A study of formal logic in which the student is taught how to translate sentences in ordinary English into the formal language of propositional and predicate logic. Emphasis is placed on recognizing logical connectives and quantifiers in ordinary language and becoming proficient in the natural deduction proof technique. Four hours per week. Four semester hours.

PHIL-302. Philosophy of Religion  
A philosophical study of both belief itself as a psychological attitude and what has been believed about God. Particular attention is given to such questions as whether or not belief is a matter of choice and whether or not one must have a reason to believe in God. Questions about the natures of God and man,
evil and immortality are also addressed. Three hours per week. *Four semester hours.*

PHIL–303. Philosophy of Mind

Dr. Goetz

An examination of various arguments for and against different views of what a person or self is. Attention is given both to the claim that a person is a soul or mind which is distinct from its physical body and to the conflicting assertion that a self is identical with its body or brain. Three hours per week. *Four semester hours.*

PHIL–304. Ethics

Dr. Goetz

A study of various ethical theorists with regard to their attempts to give an account of such concepts as the human good, virtues, the role of motive and consequences in determining right and wrong conduct, and the like. Readings on practical issues (e.g., punishment and abortion) are included in an effort to explore how the various theories relate to practice. Three hours per week. *Four semester hours.*

PHIL–305. Philosophy of Action

Dr. Goetz

An examination of what human action is, how it is explained, and whether it is free or determined. The examination raises such issues as how explanations in science are related to explanations of human behavior in terms of reasons, whether there is a science of human behavior, and for what, if any, behavior human beings are responsible. *Four semester hours.*

PHIL–309. Selected Topics

Dr. Hardman, Dr. Goetz

Content for the course will be drawn from either philosophy or religion, concentrating on special issues, movements and leaders in both areas. Three hours per week. *Four semester hours.*

PHIL–314. Seminar in Biomedical Ethics

Staff

An examination of ethical decision-making procedures available to health care professionals who face dilemmas caused by acute medical problems and the technological advances in the delivery of health care. Opportunity is given to apply decision making processes to the major issues in biomedical ethics. Students present papers exploring a dilemma, its empirical and evaluative elements, and proposing an ethical resolution. Prerequisite: permission of the department. Limited to 20 students. Three hours per week. *Three semester hours.*

PHIL–404W. Senior Seminar: Current Issues and Movements in Philosophy and Religion

Dr. Hardman, Dr. Goetz

The aim of this capstone course is three-fold: 1) A comprehensive grasp of the interrelatedness of the various courses in the major field; 2) an overview of the relation of the major field of study to the various areas in the liberal arts program; 3) a study of the relevance of philosophy and religion to the contemporary situation. There will be several papers and oral presentations. Prerequisites: English 100 and Communication Arts 201. Open only to philosophy and religion majors or by departmental permission. Three hours per week. *Four semester hours.*

PHIL–491W. Research/Independent Work

Dr. Hardman, Dr. Goetz

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

PHIL–492W. Research/Independent Work

Dr. Hardman, Dr. Goetz

A continuation of Research 491. Prerequisite: Research 491. *Four semester hours.*

*This course is not offered in 1990-1991.*


PHYSICS

Professors Snyder (Chairperson), Takats; Associate Professor Nagy; Lecturer Ronning

The courses in physics are designed to give the student an understanding of the logic and structure of physics. Methods of analysis and presentation of concepts and ideas are emphasized. Laboratory work demonstrates the dependence of physical theory on experimentation.

Requirements for Majors

Students majoring in physics must take the following courses:
Chemistry 111, 111a, 112, 112a; Mathematics 111, 112, 211, 214; Physics 111Q, 112, 203, 203a, 204, 207, 208, 207a, 208a, 315, 316, either 450W or 492W and at least six additional hours of credit in physics at the 200, 300 or 400 level.

Students anticipating graduate study in physics should also take Physics 309, 310, 401, 404.

Students majoring in physics who are preparing to teach in secondary schools must take Biology 100 or 111; Chemistry 111, 111a, 112, 112a; Mathematics 111, 112, 211, 214; Physics 111Q, 112, 200b, 203, 203a, 204, 207, 208, either 450W or 492W.

Requirements for Minors

A minor concentration in physics consists of Physics 111Q, 112, 204 and a minimum of nine credits at the 200, 300 or 400 level.

A minor concentration in astrophysics consists of Physics 111Q, 112, 204, 301, 302, and a minimum of three credits of seminar from the following topics: planetary science, cosmology, celestial mechanics, observational techniques.

Students in the pre-engineering program take Chemistry 111, 111a, 112, 112a; Math 111, 112, 211, 214, 271; Physics 111Q, 112, 204, 207, 208. Additional courses in chemistry, mathematics, and physics are chosen in consultation with the pre-engineering adviser. The courses are determined by the particular field of engineering the student plans to enter.

PHYS-100Q. Introduction to Physics

A survey of classical physics with emphasis on its structure and intellectual development as well as its application to problems of society. Concepts of motion, energy, sound, light, electricity, and magnetism. This course assumes no previous study in physics. A working knowledge of high school algebra is assumed. Two hours lecture and two hours laboratory per week. Three semester hours.
PHYS-111Q. General Physics Staff
A study of elementary mechanics and thermodynamics, utilizing the principles of calculus in the presentation and in exercises. Math 111 must either be previously completed or studied concurrently. Three hours of lecture, and three hours of laboratory per week. *Four semester hours.*

Students may receive credit for only one of the two courses Physics 100Q or Physics 111Q.

PHYS-112. General Physics Staff
A continuation of Physics 111Q. A study of waves, sound, electricity, magnetism, and light. Prerequisites: Physics 111Q. Math 112 must either be previously completed or studied concurrently. Three hours of lecture, and three hours of laboratory per week. *Four semester hours.*

PHYS-200a. Introduction to Modern Physics Dr. Takats
A survey of the development of physics in the 20th century. Concepts of relativity, atomic and nuclear physics, and elementary particles. Prerequisite: Physics 100Q. Two hours lecture and two hours laboratory per week. *Three semester hours.*

PHYS-200b. Introduction to Astronomy Dr. Nagy
Selected topics in contemporary astronomy. The solar system, stellar birth and evolution, the creation and evolution of the universe, searching for extraterrestrial intelligence. Prerequisite: Physics 100Q. Two hours lecture and two hours laboratory per week. *Three semester hours.*

Students may receive credit for both Physics 200a and 200b, but students having credit for Physics 207 may not receive credit for Physics 200a and those having credit for Physics 301 may not receive credit for Physics 200b.

PHYS-203. Mechanics I Dr. Snyder
Vectors, statics, vector calculus, kinematics of a particle, dynamics of a particle, energy, harmonic motion, moving reference systems, central forces. Prerequisites: Physics 111Q, 112; Math 111, 112. Three hours per week. *Three semester hours.*

PHYS-203a Laboratory in Mechanics I Dr. Snyder
Laboratory work (optional) for Physics 203. Three hours per week. *One semester hour.*

PHYS-204. Electricity and Magnetism I Dr. Takats
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 111Q, 112; Math 111, 112. Three hours lecture and three hours laboratory per week. *Four semester hours.*

PHYS-205. Waves Dr. Nagy
Introduction to the general phenomena of wave motion. Oscillations, traveling waves, modulation, polarization, interference, diffraction, geometric optics. Prerequisites: Physics 111Q, 112. Three hours lecture and three hours laboratory per week. *Four semester hours.*

PHYS-207. Modern Physics Dr. Takats
Classical waves and particles, wave-particle duality, elementary theory of the hydrogen atom, atomic spectra, and electron distribution. Prerequisites: Physics 111Q, 112; Math 111, 112. Three hours per week. *Three semester hours.*

PHYS-207a. Laboratory in Modern Physics Dr. Snyder
Laboratory work (optional) for Physics 207. Three hours per week. *One semester hour.*

PHYS-208. Modern Physics Dr. Takats
A continuation of Course 207. Special relativity, elementary particle physics, nuclear physics. Prerequisite: Physics 207. Three hours per week. *Three semester hours.*

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*This course is not offered in 1990-1991.*
PHYSICS

PHYS-208a. Laboratory in Modern Physics  Dr. Snyder
Laboratory work (optional) for Physics 208. Three hours per week. *One semester hour.*

*PHYS-301. Introduction to Astrophysics  Dr. Nagy
The celestial sphere, celestial mechanics, the motions of the earth, the solar system, the Earth-Moon system, the Sun, stellar distances and magnitudes, binary stars, spectral classification, and the Hertzsprung-Russel diagram. Prerequisites: Physics 111Q, 112. Three hours per week. *Three semester hours.*

*PHYS-302. Introduction to Astrophysics  Dr. Nagy
The Milky Way Galaxy, stellar motions, the structure and evolution of stars, variable and unusual stars, the interstellar medium, extragalactic objects, cosmology. Prerequisite: Physics 301. Three hours per week. *Three semester hours.*

*PHYS-309. Electricity and Magnetism II  Dr. Takats
Electric and magnetic fields and potentials, Laplace’s equation, dielectrics and magnetic materials, Maxwell’s equations, electromagnetic waves. Prerequisites: Physics 204; Math 211, 214. (Alternates with 401.) Three hours per week. *Three semester hours.*

*PHYS-310. Mechanics II  Dr. Snyder
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, Math 211, 214. Three hours per week. *Three semester hours.* (Alternates with 404.)

PHYS-315. Elements of Mathematical Physics  Dr. Snyder
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: Math 211, 214; Physics 111Q, 112. Three hours per week. *Three semester hours.*

PHYS-316. Elements of Mathematical Physics  Dr. Snyder

PHYS-317. Seminar  Staff
Study and discussion of advanced topics or recent developments in physics. Students must consult the chair of the department before registering for this course. Three hours per week. *Three semester hours.*

PHYS-318. Seminar  Staff
Same description as Physics 317. Three hours per week. *Three semester hours.*

PHYS-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.*

PHYS-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 111Q, 112; Math 211. Three hours per week. *Three semester hours.* (Alternates with 310.)

*This course is not offered in 1990-91.*
PHYS-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 the adviser. One semester hour.

PHYS-412. Research Staff
Continuation of Physics 412. One semester hour.

PHYS-421. Research Staff
Same as Physics 411, but more extensive in scope. Two semester hours.

PHYS-422. Research Staff
Continuation of Physics 421. Two semester hours.

PHYS-450W. Senior Seminar Staff
Investigation and discussions of advanced topics or recent developments in physics.

These may be experimental or theoretical investigations or they may be physics literature research. Writing a major paper and giving an oral presentation are required. Open to physics majors in their senior year or in their junior year with permission of the department chairperson. Prerequisites: English 100, Communication Arts 201. Course will meet on an arranged basis. Three semester hours.

PHYS-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.

PHYS-492W. Research/Independent Work Staff
A continuation of Physics 491. Writing a major paper and giving an oral presentation are required. Prerequisites: English 100, Communication Arts 201, Physics 491. Four semester hours.

POLITICS

Professor Berry, (Chairperson); Associate Professors Fitzpatrick, Kane;
Assistant Professors Hood, Stern.

The general objectives of the department of politics are:

1) To help students attain knowledge of the theory and practice of politics.
2) To help students develop the faculties of expression and critical thinking.
3) To challenge students to evaluate their conceptions of the good life for the individual and for society.
4) To prepare students for lives of enlightened and responsible citizenship.

The professional objectives are:

1) To prepare students for graduate work in politics, law, and public service.
2) To prepare students for examinations required for governmental service.
3) To prepare students to be political leaders.
Requirements for Majors

A major in politics requires Politics 100, 218, 237, 242, 252, one seminar at the 400 level, plus four additional courses. In addition, three courses in history, Economics 100, and one other social science course are required for the major.

Secondary School Teaching Certificate

This program satisfies the Pennsylvania State requirements for secondary school certification in social science-social studies emphasis. In addition to the basic requirements of the major, students seeking a teaching certificate must have a registered minor in education. Substantial further course work outside of politics and education is required in order to prepare the student for actual subject matters taught in the secondary curriculum. Students who wish teaching certification should consult their departmental adviser and the chair of the department of education as early as possible, preferably at the end of the freshman year. Students and their advisers should also consult the education department booklet, *Ursinus College Teacher Education Programs*.

Requirements for Minors

A minor in politics consists of Politics 100; two courses from among Politics 218, 237, 242, 252; and two courses at the 300 or 400 level.

**POL–100. Politics and Government**  
*Dr. Berry, Dr. Fitzpatrick, Dr. Hood, Dr. Stern*

Great works in political behavior, comparative institutions, methodology, international politics, and political theory create the framework for explaining politics and conducting basic research. Three hours per week. *Four semester hours.*

**POL–218. American Government**  
*Dr. Fitzpatrick*

A critical examination of the institutions, processes, policies, and underlying principles of the American political system. Topics include the Constitution, interest groups, parties and elections, the presidency, Congress, the bureaucracy, and the judiciary. Prerequisite: Politics 100. Three hours per week. *Four semester hours.*

**POL–237. Political Philosophy**  
This course examines the nature of justice through a careful reading of major works in the history of political philosophy. Specifically, we will consider selected political writings of Plato, Aristotle, Machiavelli, Hobbes, Locke, and Marx. Prerequisite: Politics 100. Three hours per week. *Four semester hours.*

**POL–242. Comparative Politics**  
*Dr. Hood*

The structure and function of governments and political groups will be compared to develop basic theory. Representative Western, Third World, and Communist systems will be studied. Prerequisite: Politics 100. Three hours per week. *Four semester hours.*

**POL–252. International Politics**  
*Dr. Berry*

General theory, simulations, games, and case studies explain the relations between states and the roles of politics, individuals, and international law and organizations in the
making and resolving of conflict. Prerequisite: Politics 100. Three hours per week. *Four semester hours.*

**POL-310. Congress and the Presidency**  
**Dr. Fitzpatrick**

The decision-making process in Congress and the executive branch with emphasis on the interaction of the branches in their struggle to make and apply policy. Prerequisite: Politics 218. Three hours per week. *Four semester hours.*

**POL-321. Constitutional Interpretation I**  
**Dr. Fitzpatrick**

The role of the Supreme Court in the interpretation and enforcement of the Constitution is examined through analysis of leading cases. Judicial review, powers of Congress and the President, and the division of powers between the national and state governments are among the topics considered. Prerequisite: Politics 218. Three hours per week. *Four semester hours.*

**POL-322. Constitutional Interpretation II**  
**Dr. Fitzpatrick**

The role of the Supreme Court in the interpretation and enforcement of individual rights within a system of limited government. Substantive and procedural due process, freedom of expression and conscience, and equal protection of the law are among the topics considered. Prerequisite: Politics 218. Three hours per week. *Three semester hours.*

**POL-323. American Local Government**  
**Staff**

The structure, policies, and problems of local government institutions in the American Federal system. Intergovernmental relations, citizen participation policy development, leadership, and service performance are all considered. Prerequisite: Politics 218. Three hours per week. *Four semester hours.*

**POL-324. Political Parties and Elections**  
**Dr. Fitzpatrick**

An examination of the evolution of the American two-party system and the increasingly volatile nature of the American electorate. Topics include the dynamics of party realignment, the changing characteristics of the American voter, the politics of presidential selection, and the consequences of party and electoral reform. Prerequisite: Politics 218. Three hours per week. *Four semester hours.*

**POL-325. The Judicial Process**  
**Dr. Fitzpatrick**

Proceeding from the idea that the judicial process is essentially a political process, this course will examine the ways in which participants in the judicial process—particularly judges—reach decisions, engage in politics, and affect public policy. Prerequisite: Politics 218. Three hours per week. *Four semester hours.*

**POL-328. 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. Prerequisite: Politics 218. Three hours per week. *Four semester hours.*

**POL-329. 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. Prerequisite: Politics 218. Three hours per week. *Four semester hours.*

**POL-330. American Political Thought**  
**Dr. Stern**

This course examines the founding principles of our regime and the problems inherent in those principles as revealed by the great crises of our history. Accordingly, we will examine carefully the speeches and writings of those statesmen who founded the regime as well as those who guided in through its crises. Readings will include the works of Jefferson, Madison, Hamilton, the Anti-Federalists, Lincoln, Frederick Douglas, Wilson, and F.D.R. Prerequisite: Politics 237. Three hours per week. *Four semester hours.*
POL--337. Classical Political Philosophy  

Dr. Stern  

This course examines the classical understanding of politics through a careful reading of selected works of Plato and Aristotle. We will consider such issues as the nature of justice, the meaning of moral and intellectual virtue, and the relation between philosophy and politics. Prerequisite: Politics 237. Three hours per week. *Four semester hours.*

POL--338. Modern Political Philosophy  

Dr. Stern  

This course examines and evaluates the world-revolutionary challenge to classical and medieval political philosophy posed by such writers as Machiavelli, Hobbes, Spinoza, Locke, Rousseau and Hegel. Prerequisite: Politics 237. Three hours per week. *Four semester hours.*

POL--339. Contemporary Political Philosophy  

Dr. Stern  

This course examines selected authors and issues in contemporary political philosophy. We will read the works of such authors as Nietzsche, Heidegger, Kojève, Rawls and Foucault. We will consider such issues as historicism, contemporary liberalism, feminism, and Marxism. Prerequisite: Politics 237. Three hours per week. *Four semester hours.*

POL--344. Political Development  

Dr. Hood  

An analysis of political change in developed and less-developed countries, focusing on the various theories used to explain socio-economic and political conditions, and development strategies among several political systems in the international community. Prerequisite: Politics 242. Three hours per week. *Four semester hours.*

POL--346. Japanese Politics  

Dr. Hood  

Focus on 20th century Japanese politics. Examines the major issues, events, institutions and trends of the modern Japanese political experience. Prerequisite: Politics 242. Three hours per week. *Four semester hours.*

POL--347. Chinese Politics  

Dr. Hood  

Focus on the government and politics of 20th century China. Examines the issues, events, personalities and policy trends of the modern Chinese political experience. Prerequisite: Politics 242. Three hours per week. *Four semester hours.*

POL--353. International Relations of Asia  

Dr. Hood  

An examination of the foreign and international policies of the major countries of East Asia. Special emphasis is given to the politics of international trade and economics, war and security issues, and the role of the superpowers in the East Asian region. Prerequisite: Politics 252. Three hours per week. *Four semester hours.*

POL--355. U.S. Foreign Policy  

Dr. Berry  

Works of scholars and statesmen analyze the process and substance of recent foreign policy. Attention is paid to the capabilities of presidents, the influence of Congress and public opinion, and the organization and function of the National Security Council. Prerequisite: Politics 252. Three hours per week. *Four semester hours.*

POL--357. War and Revolution  

Dr. Berry  

Various theories of international conflict will be tested by way of a series of case studies on 20th century wars and revolutions. The Inter-Nation Simulation will be played using historical or hypothetical conflict to further test theories. Prerequisite: Politics 252. Three hours per week. *Four semester hours.*

POL--381. Internship in Politics and Government  

Staff  

Internship in a public or governmental organization or participation in an overseas study program. A 2.67 grade average and permission of the department are required. *Four semester hours.*

POL--418W. Seminar in American Government  

Dr. Fitzpatrick  

Intensive study of a special topic in American government emphasizing original research and substantial oral and written work. Prerequisites: English 100, Comm Arts 201, junior or senior status and one 300-level course in American government. Three hours per week. *Four semester hours.*
POL–420. Topics in Law and Politics
Staff
An occasional course dealing with special subject areas or events. Four semester hours.

POL–437W. Seminar in Political Theory
Dr. Stern
Intensive study of a special topic in political theory emphasizing original research and substantial oral and written work.
Prerequisites: English 100, Comm Arts 201, junior or senior status and one 300-level course in political theory. Three hours per week. Four semester hours.

POL–442W. Seminar in Comparative Politics
Dr. Hood
Intensive study of a special topic in comparative politics emphasizing original research and substantial oral and written work. Prerequisites: English 100, Comm Arts 201, junior or senior status and one 300-level course in comparative politics. Three hours per week. Four semester hours.

POL–452W. Seminar in International Politics
Dr. Berry
Intensive study of a special topic in international politics emphasizing original research and substantial oral and written work. Prerequisites: English 100, Comm Arts 201, junior or senior status and one 300-level course in international politics. Three hours per week. Four semester hours.

POL–491. Research/Independent Work
Staff
This course is open to candidates for departmental honors and to other students with the permission of the department chair. Four semester hours.

POL–492. Research/Independent Work
Staff
A continuation of course 491. Prerequisite: Politics 491. Four semester hours.

PSYCHOLOGY
Professor Fago; Associate Professors Chambliss (Chairperson), Rideout; Assistant Professors England, Richardson; Lecturer McMahon

The objectives of the department of psychology for the student are 1.) to familiarize the student with the general methods of behavioral 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; and 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 psychology and the behavioral sciences, but also for study in other areas and professions as well as employment in a wide variety of industrial, business, and governmental positions. Also attainable is Pennsylvania certification for secondary school teaching in social science with an emphasis in psychology. Students and their advisers should consult the education department booklet, Ursinus College Teacher Education Programs.

In order to meet these objectives, the psychology curriculum 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.
   b. Developmental/Personality: Psychology 345, 355, 450, 455.
   d. Research/Theory: Psychology 481, 482, 491, 492, 495.
3. Six additional elected credits in Psychology.

B. Ancillary Courses
Required of all majors

1. Biology 100, 200, or 111, 112
2. Math 241
3. Eight credit hours in anthropology or sociology

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. Math 242
2. Psychology 481 or 482, 491, or 492 (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 100 and 110; one course in experimental psychology chosen from 320, 325, 330 or 340; one course in developmental/personality psychology chosen from 345, 355, 450 or 455; one course in social/applied psychology chosen from 360, 365, 440, or 465.

A minor concentration in human behavioral development consists of Psychology 100, 110, 345, 355, and 455.

A minor concentration in neuroscience consists of Biology 317; Psychology 110, 320 and 325; and either Psychology 481 or 482 (approved topic applicable to the neurosciences), or Biology 481 or 482 (approved topic applicable to the neurosciences), or Biology 422. Psychology 327 is recommended but not required.
PSYC–100. Introductory Psychology Staff
This course is an introduction to psychological research and topics selected to illustrate interdisciplinary and cross-cultural perspectives. The goal is to enhance insight into individuals, the internal factors that influence their psychological processes, and their relationship with their social milieu. Four hours per week. Four semester hours.

PSYC–110. Research Methodology Dr. Fago
This course is an introduction to psychological research emphasizing non-experimental research methodologies including field studies, correlational research, and quasi-experimental and ex post facto research designs. Topics covered include the following: operationism, measurement and error, subject and variable selections, experimental control, and ethical issues. Students will also be introduced to the use of statistics as a research tool. Three hours lecture, two hours laboratory per week. Four semester hours.

PSYC–210W. Experimental Psychology Dr. Rideout
This course is designed to familiarize the student with principles of experimental design, statistical techniques, and laboratory methods used in psychology. Lectures, demonstrations, data collection, and the preparation of scientific reports. Prerequisites: English 100, Psychology 100, Psychology 110, Math 241, or permission of instructor. Three hours lecture, two hours laboratory per week. Four semester hours.

PSYC–260. Mental Health and Abnormal Psychology Dr. Chambliss
Mental health problems are examined from the biological, behavioral, cognitive, humanistic/existential and sociocultural perspectives. Topics include reactive, anxiety, and personality disorders, psychosis and organic disorders, and substance abuse. Prevention and treatment of mental illness are discussed. Prerequisite: Psychology 100. Three hours per week. Four semester hours.

PSYC–265. Educational Psychology Staff
Educational application of psychological concepts will be addressed. The focus is on the psychological processes involved in learning and behavior management in the classroom, but the course includes a survey of cognitive and social development. Prerequisite: Psychology 100. Three hours per week. Four semester hours.

PSYC–301. Reading in Psychology Staff
Individual study of one or more selected topics in the psychological literature, and preparation of an annotated bibliography of 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 adviser. One semester hour.

PSYC–302. Reading in Psychology Staff
Content and prerequisites as in Psychology 301, but offered in the spring term. One semester hour.

PSYC–320. 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 100, Psychology 110. Three hours of lecture, two hours of laboratory per week. Four semester hours.

PSYC–325. 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. Some emphasis will be placed on topics in sleep research and in cerebral lateralization of function. May be taken in conjunction with Psychology 327. Prerequisites: Psychology 100; Biology 100 or 111; or permission of the instructor. Three hours per week. Three semester hours.

PSYC–327. 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 325 and permission of the instructor. Two hours per week. **One semester hour.**

**PSYC–330. Cognitive Psychology**

**Dr. Fago**

A review of contemporary research and theory dealing with human mental processes. Topics covered include attention, pattern recognition, structure of memory, memory processes, and language acquisition. Prerequisites: Psychology 100 and 210W. Three hours lecture, two hours laboratory per week. **Four semester hours.**

**PSYC–340. Learning and Motivation**

**Dr. Fago**

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 100 and 210W. Three hours lecture, two hours laboratory per week. **Four semester hours.**

**PSYC–345. Child Development**

**Dr. England**

A study of human development from conception through childhood. Physical, cognitive, and social development will be reviewed in terms of psychological theory and empirical research. Emphasis will be given to the interaction between cultural and individual influences on the course of development. Prerequisite: Psychology 100. Three hours per week. **Four semester hours.**

**PSYC–355. Adolescent Psychology**

**Dr. Fago**

A review of research and theory of physical, psychological and social development during adolescence. Topics covered will include physical/sexual development, cognitive development, personality development, sex roles and gender identity, peer and familial influences, and social development. Prerequisite: Psychology 100. Three hours per week. **Four semester hours.**

**PSYC–360. Psychology in the Community**

**Dr. England**

Application of psychological theory, research methods, and empirical findings to community programs dealing with contemporary social problems, such as crime and delinquency, racial prejudice, environmental pollution, mental illness, drug addiction, poverty and other forms of deprivation. Prerequisite: Psychology 100. Three hours per week. **Four semester hours.**

**PSYC–365. Industrial/Organizational Psychology**

**Dr. Richardson**

The study of human behavior in work settings. Motivation and productivity, personnel selection, human-computer interaction, and causes and consequences of job stress. The effects of different approaches to management are addressed. Prerequisites: Psychology 100; Math 241. Three hours per week. **Four semester hours.**

**PSYC–381. Psychology Internship**

**Dr. Chambliss**

An off-campus academic/work experience under the supervision of an internship adviser and an on-site supervisor. Contact Dr. Chambliss for further information. Prerequisites: junior standing, nine credits in Psychology, and approval of a faculty internship adviser. Eight to ten hours per week. **Three semester hours.**

**PSYC–440. Social Psychology**

**Dr. Richardson**

The study of social forces as they originate with and impinge on individuals. Attitude-behavior relationships, group membership, and causes of antisocial and prosocial behavior are analyzed. Historical perspectives are included. Three hours per week. Prerequisites: Psychology 100 and Math 241. Three hours per week. **Four semester hours.**

**PSYC–450. Psychopathology and Psychotherapy**

**Dr. Chambliss**

Clinical and experimental approaches to the understanding and treatment of psychosis, anxiety disorders, and related conditions.
Selected topics are studied intensively to illustrate the wide variety of contemporary viewpoints and techniques. Prerequisites: Psychology 100, 260, and 265 or 345. Three hours per week. *Four semester hours.*

**PSYC-455. Personality** Dr. Chambliss
A comprehensive survey of psychological theory and research dealing with the normal aspects of human nature. The psychoanalytic, biogenetic, trait, humanistic, and behavioral perspectives will be explored. Prerequisites: Psychology 100, 260, and 265, 355 or 345. Three hours per week. *Four semester hours.*

**PSYC-465. Educational Tests and Measurements** Dr. Richardson
An introduction to various tests and the procedures associated with their development and use. Includes tests of aptitude and achievement, as well as various other psychometric devices (e.g., scales for clinical and personality assessment). Prerequisites: Psychology 100 and Math 241. Three hours per week. *Four semester hours.*

* **PSYC-480. History and Theories of Psychology** Dr. Fago
The philosophical underpinnings of psychology from the Greeks to the 19th century empiricists will be explored. The development of scientific paradigms to address fundamental philosophical issues will then be traced in the emergence of contemporary psychology. A critique of psychology as a method of inquiry and as a theory of knowledge will be attempted within the framework of a philosophy and sociology of science. Three semester hours per week. *Four semester hours.*

**PSYC-481. Research** Staff
Investigations of an experimental, clinical or theoretical nature pursued independently by the student. The preparation of a written and oral 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 or her adviser. Prerequisite: Communication Arts 201. *Four semester hours.*

**PSYC-482. Research** Staff
Content as in Psychology 481, 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 honors program. Prerequisite: Communication Arts 201. *Four semester hours.*

**PSYC-491. Research/Independent Work** Staff
This course is open to candidates for departmental honors and to other students with the permission of the department chairperson. The preparation of a written and oral scientific report is required. Prerequisite: Communication Arts 201. *Four semester hours.*

**PSYC-492. Research/Independent Work** Staff
A continuation of Psychology 491. Prerequisite: Psychology 491. *Four semester hours.*

**PSYC-495. Seminar in Psychology** Staff
A seminar intended to familiarize the student with the current trends and special topics in theoretical and applied psychology. Emphasis will be given to the preparation and oral presentation of papers on selected topics which will vary from year to year. Open to third- and fourth-year students majoring in psychology. Prerequisite: Communication Arts 201. Three hours per week. *Four semester hours.*

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*This course is not offered in 1990-1991.*

**RELIGION**
See Philosophy and Religion
SPANISH
See Modern Languages

SPECIAL INTERDIVISIONAL OFFERINGS

IDS-101. World Literature I: The Literary Tradition Staff
Critical reading of selected representative works from Western and non-Western literatures from early civilization through the European Renaissance. The epic and drama will be emphasized. Three hours per week. Four semester hours.

IDS-102. World Literature II: Topics in Comparative Literature Staff
Critical reading of selected works, with emphasis on 19th and 20th century non-Western literatures, in a comparative and pluralistic context. Three hours per week. Four semester hours.

College Scholars’ Program
Guided independent study for qualified freshmen in their second term, sophomores and juniors. Each course is credited as three semester hours.

IDS-211. Languages Dr. Espadas and Divisional Tutors
IDS-212
IDS-213

IDS-221. Humanities Dr. Lionarons and Divisional Tutors
IDS-222
IDS-223

IDS-231. Social Sciences Dr. Rideout and Divisional Tutors
IDS-232
IDS-233

IDS-241. Natural and Physical Sciences Dr. Tortorelli and Divisional Tutors
IDS-242
IDS-243

IDS-301. Women’s Studies Interdisciplinary Course Staff
An interdisciplinary course to promote an awareness and understanding of men’s and women’s potential and options in our society. Readings and lectures will explore such topics as women in history, gender and gender roles, women and society, women’s place in the working world, in legal and religious institutions. Weekly lectures, case studies, tutorials and independent research. Open to upperclass students. Three hours per week. Three semester hours.

IDS-332. Latin American Studies (see also Spanish) Staff
An interdivisional approach to the study of Latin America. The development of the history, politics, society and literature of Latin American nations will be examined. Readings will be selected from the works of major intellectual figures and writers. Emphasis will be on the 20th century. Weekly lectures, films, and class discussions. The language of instruction is English. Open to upperclass students. Four hours per week. Four semester hours.

IDS-350. Human Sexuality Dr. Allen, Dr. Chambliss
A study of the development and expression of human sexuality through the ages and through the lifespan of the individual. Alternate orientations, variances and sexual dysfunctions, disorders and diseases are also considered. Prerequisites: Biology 100 or 111, and Psychology 100 or permission of the instructor. Three hours of lecture per week. Three semester hours.

IDS-402. 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.
COMBINED MAJORS

Applied Mathematics/Economics

Students majoring in applied mathematics/economics must take the following mathematics courses: 111, 112, 211, 235, 241Q, 271, and at least two of the following: 214, 242, 341, 342. They must also take the following economics courses: 100, 242, 251, 252, 463W, 464 and either 351W or 352W. Physics 111, 112, although not required for the major, may be elected to satisfy the College science requirement. Advanced courses shown above that are not chosen to satisfy requirements are recommended as electives.

INTERNATIONAL RELATIONS

See page 112.
<table>
<thead>
<tr>
<th>Name</th>
<th>Degree(s)</th>
<th>Home Town</th>
<th>First Elected</th>
<th>Term Expires</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROBERT B. ANDERSON</td>
<td>B.S., M.S.</td>
<td>Dallas, Texas</td>
<td>1972</td>
<td>1992</td>
</tr>
<tr>
<td>JAMES G. CROUSE</td>
<td>B.S., M.S.</td>
<td>Royersford, Pa.</td>
<td>1980</td>
<td>1990</td>
</tr>
<tr>
<td>THOMAS G. DAVIS</td>
<td>B.S., M.D.</td>
<td>Radnor, Pa.</td>
<td>1980</td>
<td>1990</td>
</tr>
<tr>
<td>LLEWELLYN F. DRYFOOS</td>
<td>A.A.</td>
<td>Sugarloaf, Pa.</td>
<td>1988</td>
<td>1993</td>
</tr>
<tr>
<td>DAVID J. KNAUER</td>
<td>B.A.</td>
<td>West Chester, Pa.</td>
<td>1988</td>
<td>1993</td>
</tr>
<tr>
<td>LOUIS N. MCCARTER III</td>
<td>B.S.</td>
<td>Malvern, Pa.</td>
<td>1984</td>
<td>1989</td>
</tr>
<tr>
<td>DONALD E. PARLEE</td>
<td>B.S., M.D.</td>
<td>Doylestown, Pa.</td>
<td>1983</td>
<td>1990</td>
</tr>
<tr>
<td>GLADYS PEARLSTINE</td>
<td>B.S.</td>
<td>Collegeville, Pa.</td>
<td>1984</td>
<td>1989</td>
</tr>
<tr>
<td>HENRY W. PFEIFFER</td>
<td>B.S., M.S.</td>
<td>Chatham, N.J.</td>
<td>1978</td>
<td>1993</td>
</tr>
<tr>
<td>ROBERT POOLE</td>
<td>B.S., M.D.</td>
<td>West Chester, Pa.</td>
<td>1985</td>
<td>1990</td>
</tr>
<tr>
<td>JAN M. SMITH</td>
<td>B.A.</td>
<td>Pottstown, Pa.</td>
<td>1988</td>
<td>1993</td>
</tr>
<tr>
<td>DONALD G. STAUFFER</td>
<td>B.A.</td>
<td>Devon, Pa.</td>
<td>1988</td>
<td>1993</td>
</tr>
<tr>
<td>WILLIAM G. WARDEN</td>
<td>B.A.</td>
<td>Newtown Square, Pa.</td>
<td>1982</td>
<td>1992</td>
</tr>
<tr>
<td>ROY WENHOLD</td>
<td>B.S., M.D.</td>
<td>Abington, Pa.</td>
<td>1968</td>
<td>1993</td>
</tr>
</tbody>
</table>
**LIFE MEMBERS**

<table>
<thead>
<tr>
<th>Name</th>
<th>Degrees and Titles</th>
<th>Years of Membership</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAMES H. BAIRD</td>
<td>B.S., M.S., ScD.</td>
<td>1979-1989</td>
</tr>
<tr>
<td>HENRY P. LAUGHLIN</td>
<td>M.D., SC.D., SC.S.D., B.S.</td>
<td>Union Bridge, Md.</td>
</tr>
<tr>
<td>WILLIAM S. PETTIT</td>
<td>B.S., M.S., Sc.D.</td>
<td>1970-1984</td>
</tr>
<tr>
<td>CARL A. POSSE</td>
<td>Bryn Mawr, Pa.</td>
<td>1979-1989</td>
</tr>
<tr>
<td>WILLIAM R. ROBBINS</td>
<td>B.S., West Hartford, Conn.</td>
<td>1971-1986</td>
</tr>
<tr>
<td>DAVID M. SCHMID</td>
<td>B.S., Norristown, Pa.</td>
<td>1971-1986</td>
</tr>
</tbody>
</table>
COMMITTEES OF THE BOARD OF DIRECTORS

(President Richter is appointed ex officio to all committees with voice and vote.)

ART MUSEUM: HEEFNER, CHAIR, Corson, Marshall, Musser, Pearlstone.

ATHLETICS: STAUFFER, CHAIR, Cornish, Dando, Pfeiffer, Richards, Teske, Wenhold.


BUILDINGS AND GROUNDS: CORNISH, CHAIR, Everest, Knauer, McCarter, Poole, Shetler, Stauffer, Teske.

Sub-Committee on Landscape Review: Teske, Everest, Shetler.

DEVELOPMENT: CORSON, CHAIR, Cornish, Crouse, Daly, Davis, Dryfoos, Glassmoyer, Hartman, Heefner, Knauer, Pfeiffer, Poole, Richards, Stauffer, Warden.

EXECUTIVE: (Officers of the Corporation) GLASSMOYER, CHAIR, Heefner, Pfeiffer, Steinbright. (Committee Chairs) Corson, Parlee, Stellar, Wenhold. (At Large) Davis, Hartman.

Sub-Committee on Marketing and Enrollment Mangement: Reichley, Corson, Dryfoos, Pfeiffer.


Sub-Committee on Investments: Heefner, Richards, Warden, (Chair), Glassmoyer (ex officio).


HONORARY DEGREES: STELLAR, CHAIR, Davis, Glassmoyer, Marshall

LIBRARY: WENHOLD, CHAIR, Cornish, Dando, Everest, Pearlstone, Teske.

LONG-TERM PLANNING: SMITH, CHAIR, Blum, Davis, Haas, Havens, Lewis, McCarter, Poole, Warden.

NOMINATING: PARLEE, CHAIR, Blum, Crouse, Glassmoyer, Poole, Musser, Stauffer.

OTHER

Campus Investment Committee: Richards.

Representatives to Campus Life Committee: Bright, Cornish, Musser, Shetler.

OFFICERS OF THE CORPORATION

President: THOMAS P. GLASSMOYER, Willow Grove

Vice-President and Treasurer: WILLIAM F. HEEFNER, Perkasie

Secretary: HENRY W. PFEIFFER, Chatham, N.J.

Assistant Secretary: MARILYN L. STEINBRIGHT, Norristown
The Administration
RICHARD P. RICHTER, M.A., LL.D., President

Administrative Officers

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J. HOUGHTON KANE, J.D., Dean of Student Life
JOHN D. PILGRIM, Ph.D., Vice President for Finance and Planning
HUDSON B. SCATTERGOOD, M.B.A., Vice President for College Relations

Administrative Staff

BLANCHE Z. ALLEN, A.A., Publications Coordinator, College Communications
ALBERT ANGELOS, B.S., Administrative Assistant, Athletic Department
MARGARET M. BAER, B.B.A., Systems Manager, Administrative Computing
LISA BARNES, M.A., Muriel M. Berman Director, Berman Museum of Art
PATRICIA L. BENES, M.S., Development Research/Writer
BARBARA A. BORIS, B.S., Registrar
ADELE P. BOYD, M.Ed., Assistant Director of Athletics
MONA S. CHYLACK, A.B., Student Accounts Administrator
JUDITH H. CLAYCOMB, R.N., Nurse
PAUL M. CRAMER, B.A., Admission Counselor
ELIZABETH L. DAVIDSON, B.B.A., Accounting Operations Manager
ROBERT R. DAVIDSON, E.d.D., Director of Athletics
MARY ELLEN DEWANE, B.A., Director of Alumni Affairs; Coordinator of Campus Events
RICHARD DIFELICIANTONIO, B.A., M.A., Director of Admission
KERRY L. DURGIN, B.A., Admission Counselor
WALTER J. EDNIE, M.B.A., Controller
INGRID L. EVANS, M.A., Director of Development
JENNEEN A. FLAMER, B.A., Admission Counselor-Minority Student Counselor
NANCY E. FRANCIS, B.S., Collections Manager, Berman Museum of Art
TAMMY L. GREEN, B.S., M.S., Assistant Director of Student Activities, Resident Director
R. JEFFREY HARP, M.C.S., Assistant Director of Academic Computing
EVA J. HESS, M.Ed., Director of Student Financial Aid
CHARLES A. JAMISON, M.L.S., Library Director
LINDA L. JESSUP, Ph.D., User Support Specialist
MARGARET DILLON KATZ, B.A., Associate Director of Admission
FREDERICK L. KLEE, B.S., Director of Physical Facilities
M. SCOTT LANDIS, M.Div., M.A.P.C., Campus Minister
JANIS L. LANGE, B.A., Assistant to the Dean of Continuing Education
ANNETTE V. LUCAS, Ph.D., Assistant Dean of the College, Director of Liberal Studies
JOHN C. MAERZ, M.D., Physician
W. BRIAN McCULLOUGH, M.S.W., Director of Security
STEPHANIE McNULTY, B.S., M.Ed., Assistant Director of Residence Life/Area Coordinator
BRUCE J. MENKOWITZ, M.D., Orthopedic Surgeon
C. JOSEPH NACE, M.B.A., Dean of Continuing Education
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Ms. Zimmer

MAJOR PROGRAM ADVISERS

Advisers will be assigned by the chairperson or coordinator of the student's major. They are:

Anthropology and Sociology, Professor Gallagher
Applied Mathematics/Economics, Professor Hagelgans
Biology, Professor Small
Chemistry, Professor Schultz
Classical Studies, Professor Wickersham
Communication Arts, Professor Henry
Computer Science/Mathematics, Professor Hagelgans
Economics and Business Administration, Professor O'Neill
English, Professor Schroeder
French, Professor Hall
German, Professor Thelen
Health, Physical Education and Recreation, Professor Davidson
History, Professor Visser
International Relations, Professor Clark
Mathematics, Professor Hagelgans
DIRECTORY

Philosophy and Religion, Professor Hardman
Physics, Professor Snyder
Politics, Professor Berry
Psychology, Professor Chambliss
Spanish, Professor Espadas

PRE-PROFESSIONAL ADVISERS
Education, Professor O’Brien
Engineering, Professor Snyder
Law, Professor Fitzpatrick
Medicine, Professor Hess

FOREIGN STUDENT ADVISER
Professor Eaton

CLASS ADVISERS
Class of 1994, Professor BreMiller
Class of 1993, Professor Jamison
Class of 1992, Professor O’Brien
Class of 1991, Professor Shinehouse

FACULTY COMMITTEES

Committees Appointed by the President

Administrative Committees

Academic Standing: Akin, ch; Boris, Chambliss, DiFeliciantonio, Kane, Lucas, Nace, Nolan, Perreten, Richter, Shuck, (fall), Tortorelli (Spring)

Admission: Richter, ch; Cramer (voice) Davidson, DiFeliciantonio, Durgin (voice), Flamer (voice), Gallagher, Kane, Katz, Lucas, S. Nelson (voice), Neslen, Pilgrim, Rodenberger, (voice), Schroeder, Small, Thomas (voice)

Scholarships: Pilgrim, ch; Allen, DiFeliciantonio, Gallagher, E. Hess, Nelson (voice), Richter

Student Activities: Zimmer, ch; Borsdorff, Green, Kane, Landis, Mill, Richardson; Kristen Cannon, Debbie Collinge, Mike Gould, Megan mendtle, Lisa Straw

Medical School Credentials: R. Hess, ch; Allen, Clouser, Rinde, Shinehouse, Small, Snyder

Policy Committees

Art Museum Advisory Committee: Akin ch.: Barnes, Branker, Cameron, DeWane, Fryer, O’Brien, Rosenthal, Visser, Xaras, Zimmer, B. Zucker; Andrew Lange, Kristie Palumbo, Amy Wayes

Athletics: Davidson, ch (fall); Neslen, ch. (sp.); Akin, Boyd (sp.), BreMiller, Hankel, R. Hess, Katz, O’Neill, Sherman; Frank Chrzanowski, Helen Hertlein

Computer Policy: Jessup, ch; Barth, Economopoulos, Fago, Hagelgans, Harp, Jamison, Nace, Wickersham; Anne Livezey

Forum and Cultural Affairs: Zimmer, ch; Barnes, Berry, Branker, Cobbs, DeWane, French, Gassler, Hall, Hemphill, Henry, Landis, Sidie; Rob Pohl

Freshman Orientation: Zimmer, ch; DeWane, Green, E. Hess, Kane, Katz, LoBue, Lucas, Nolan, Oehlert, Whatley; Stacey Abbott, Frank Chrzanowski, Heather Groom, Rob Kester, Drysty Kiwak, Megan Mendtle, Rose Anne Moser, Denise Movitz, Gina Solensky

163
International Education Committee: Lucas, ch; Berry, Cameron, Clark, DeCatur, Dezawa, R. Doughty, Espadas, E. Hess, Hood, Katz, Nolan, Novak, O'Brien; Kevin Attearn, Rachel Benner, Beth Hauser, Anne Livezay

Library: Jamison, ch; Akin, Barth, Czubaroff, Dole, Gassler, Hardman, Hughes, King, Lange, Nagy; students TBA

Parents' Day: Zimmer, ch; Barnes, DeWane, Gilbert, Green, Rideout, Small, Whatley; students TBA

Student Publications: Miller, ch; Bowers, Cobbs, Harris, Malone, Volkmer, Zimmer; Peggy Herman, Michelle McFadden, Kevin Murphy, Rob Pohl, Erika Rohrbach

Teacher Education: O'Brien, ch; Bowers, BreMiller, R. Doughty, Espadas, Fago, Fields, Fryer, Hankel, Obler, Perreten, Price, Schultz, Snyder, Swalm, Visser, Wickersham; Denise Cinaglia, Peter Henty

Wellness: Borsdorf, ch; Davidson, Hughes, Jamison, Kane, Oehlert, O'Neill, Smith; Sue Anderson, Thomas Blomstrom, Susan Haux, Helena Hertlein, Rebecca Kolp, Carlos Rogers, Kim Wentzel

Special Committees with Academic Functions

College Scholars: Lionarons, ch; Espadas, Rideout, Tortorelli

Committees to which faculty elect members

Academic Council: Akin, ch; Coleman, Fitzpatrick, Hall, Lentz (sp.), Miller, Obler (fall), Richter, Rosenthal, Schultz, Xaras; Dennis Cunningham, George Kern

Advisory Committee on College Priorities: Richter, ch; Akin, French, Pilgrim, Thelen, Tortorelli, (also functions as Campus Planning Group with the inclusion of DiFeliciantonio, Kane, Lucas, Scattergood; Sue Frable, Kristie Kaufman)

Advisory Committee on Faculty Retention, Promotion and Tenure: Richter, ch; Akin, Doughty (sp.), Espadas, Gallagher (fall), Jessup, Lentz (sp.), Thelen (fall)

Appeals Committee: Barth, Chambliss, Perreten; administrators TBA

Board Buildings and Grounds Committee Representatives: Davidson (fall), French (sp.), Kane, Klee, Tortorelli; Allison Puff, Christine Maguire

Campus Life Committee: Kane, ch.; Borsdorf, Hood, Landis, LoBue, Nolan, Volkmer; William Finnegan, Bonnie Gilmour, Lou Haenel, Dana Kushwara, Chris LaRosa, Angie Mason

Campus Investment Committee Representative: O'Neill

Faculty Development Committee: Akin, ch; Chambliss (fall), Lentz (sp.), Hall, Hood, Jessup, Schroeder

Judiciary Board: BreMiller, ch; Coleman, Neslen, O'Neill; Rachel Benner, Frank Chrzanowski, Sam Steward. Alternates: Boyd, Rosenthal, Thelen; Dennis Cunningham, Melissa Pollack, Wendy Manko

Nominating Committee: Bowers (fall), ch; Cameron, Clark, Fitzpatrick, Hagelgans, Harris (sp.), Hess, Lionarons, O'Neill, Shinehouse

Ad hoc committees

Ad hoc Committee on Scheduling: Boris, ch.; Coleman, Espadas, Fago, French, Gallagher, Hess, Zimmer; Dennis Cunningham, Bryan Wert
Ad hoc Committee on Special Teaching Loads: O'Brien (fall), Akin, Espadas, Fields, Fitzpatrick, Gallagher (sp.), Henry, Pilgrim, Richter, Shuck (fall), Takats (sp.)

Ad hoc Committee on Judiciary Board for Academic Discipline: Small, ch.; Akin, Fife, Kane, Malone, Richardson; William Finnegan

ALUMNI ASSOCIATION EXECUTIVE COMMITTEE – 1989-90

President:
Jenepher Price Shillingford, ’54, 409 Oak Lane, Wayne, Pa. 19087

Vice President:
Graham C. Mackenzie, ’74, 10195 Hillington Court, Vienna, Va. 22180

Secretary:
Shirley Cressman Metzger, ’73, 1033 North Seventh Street, Perkasie, Pa. 18944

Faculty Representatives:
S. Ross Doughty, ’68, 18 Walters Lane, Royersford, Pa. 19468
Jane Perreten Shinehouse, ’52, 1747 South Collegeville Road, Collegeville, Pa. 19426

Alumni Representatives:
Linda Fishl Cohan, ’70, 18 Adele Drive, Richboro, Pa. 18945
Margaret Brown Staiger, ’43, 707 Chestnut Street, Collegeville, Pa. 19426
Carol Guest Videon, ’67, 149 Brookside Drive, Newtown Square, Pa. 19073
Gregory R. Gifford, ’81, 920 Church Street, North Wales, Pa. 19454
Deborah Lord Kennedy, ’74, 164 Bechtel Road, Collegeville, Pa. 19426

Evening Division Representative
Cathleen S. Keeley, ’81, 50 Marian Road, Trappe, Pa. 19426

Alumni Directors:
Betty Brown Dando, ’45, 616 Bridle Rd., Glenside, Pa. 19038
Robert Poole, ’50, 1008 N. New Street, West Chester, Pa. 19380
Nancy Jeanne Talcott Everest, ’47, 6 Central Dr., Yardley, Pa. 19067
Dr. Carol K. Haas, ’70, 98 Walnut Drive, North Shores, Seaford, Del. 19973
Jan M. Smith, ’74, 1540 Buchert Road, Pottstown, Pa. 19464
Prizes, Honors, Degrees

AWARDED IN 1989

The Alumni Senior Award—Matthew Scott Doughty, '89, Odessia Yvonne Rutledge, '89
The American Chemical Society Award—Angela Lynn Stofflet, '89
The American Institute of Chemists Award—Sean Patrick McKee, '89
The Cyrus E. Beekey Prize—Linda Ann Brosz
The Chemistry Laboratory Technique Award—Bethany Kay Freed, '89
The CRC Press Freshman Chemistry Achievement Award—Jamie L. Adam, '92
The George Ditter Prize—Victoria Scharuda, '89
The Duttera Prize—Andrew Lincoln Spitznas, '89
The Ehret Prize—John W. Wood, Jr., '89
The Faculty Prize in Computer Science—Trevor H. Feldman, '89
The Faculty Prize in Mathematics—Ben Timothy Evans, '89
The Edwin M. Fogel Prize—Donna Szuszczechwicz, '90
The Philip H. Fogel Memorial Prize—Andrew Lincoln Spitznas, '89
The French Award—Denise M. Cinaglia, '90
The Thomas P. and Frances T. Glassmoyer Scholastic Award—Lillian Edna Benedict, '89
The Olive Sargeant Hamm Award—Sandra Ann Diction, '89
The Thomas Jefferson Prize—Trevor H. Feldman, '89, William Leo Pepper, '89
The Ronald C. Kichline Prize—Ronald Bruce Matthew, '89
The Laughlin Award—Lora Lynne Hart, '89, Jean Marie Kiss, '89
The William L. Lettinger Chemistry Award—Angela Lynn Stofflet, '89
The Elizabeth Rockefeller McCain Prize—Christina J. Steffy, '91
The Merck Award—Lillian Edna Benedict, '89
The Professor Eugene H. Miller Prize—Robert David Carmignani, '89
The Wayne F. Millward '57 Memorial Prize—Gillian Martin Murray, '89
The George E. Nitzsche Prize—Lauren J. Grossman, '89
The Paisley Prize—BethAnn Little, '89
The Pennsylvania Institute of Certified Public Accountants—Robert E. S. Hartzell, Jr., '89
The Peters Prize—Judith Anne Spangler, '89
Professor William J. Phillips Prize—Carol F. Nelson, E.S.
The W. W. Smith Prize—James P. McCartney, Jr., '90, Barbara J. Rohrer, '90
The Robert Trucksess Prize—Lillian Edna Benedict, '89
The Undergraduate Award in Analytical Chemistry—Connie L. Newell, '90
The Wagman Prize—Jennifer Suzanne Wertz, '89
Wall Street Journal Award—Helen Patricia LeClair, '89
The Professor Elizabeth B. White Prize—William Leo Pepper, '89
The Whitian Prize—Kelli Ann Rooney, '92
COMMENCEMENT HONORS

Valedictorian:
Lillian Edna Benedict

Salutatorian:
Linda Ann Brosz

Summa Cum Laude:
Lillian Edna Benedict
Linda Ann Brosz

Magna Cum Laude:
Nicholas William Bay
Christine Marie Centofanti
Sandra Ann Dickon
Ben Timothy Evans
Kathleen Alayne Klee
Lynne Marie Lawson

Cum Laude:
Mary Bridget Eileen Agnes Algeo
Todd Madison Blue
Kimberly Sue Caldwell
Julie Ann Corish
Kerry Louise Durgin
Trevor H. Feldman
Paul Mark Frassinelli
Heidi M. Fuller
Tracey Lynn Hitchner
Kirsten Colleen Kempe

EVENING SCHOOL HONORS

Summa Cum Laude:
Rosemary C. Chuck

Magna Cum Laude:
Barbara A. Jose

Cum Laude:
Linda Ann Brosz
Rosemarie Hardy

Biology:
Linda Ann Brosz
Martin Scott Dawson

Chemistry:
Angela L. Stofflet

English:
Julie Ann Corish

History:
William Leo Pepper

Paul L. Rutter
Nancy L. Nissel
John Francis Schroeder
Kirsten Colleen Kempe
Margaret Mary Sleeper
Mathematics and Computer Science:
Christine Marie DeVeny
Ben Timothy Evans

Physics:
Lynne Marie Lawson

Psychology:
Jennifer Suzanne Wertz

CHAPTER SCHOLARS
Nicholas William Bay, '89
* Lillian Edna Benedict, '89
* Linda Ann Brosz, '89
Sandra Ann Dicton, '89
Ben Timothy Evans, '89

Mark L. Lesh, '89
* Frank R. Moulton, Jr., '89
Helen Z. Stauffer, '89
Kristin Jean Stuempfle, '89
Christina C-M Wee, '89

* elected junior year

CUB AND KEY
Todd Madison Blue, '89
Jyn-Hann O. Chang, '90
Matthew James Darrin, '89
Trevor H. Feldman, '89
Brian A. Finger, '89
Paul Mark Frassinelli, '89
Kris R. Kaulback, 90
Ronald E. Kimmel, '90
Mark L. Lesh, '90

Scott C. Malthaner, '90
James P. McCartney, Jr., '90
Donald Henry Ruth, II, '89
Joseph M. Sindoni, '89
Andrew Lincoln Spitznas, '89
Kenyon W. Sprankle, '90
Donald W. Todd, '90
Matthew D. Weintraub, '90

WHITIANS
Mary Bridget E. Algeo, '89
Pearl E. Anderson, '90
Susan L. Anders, '90
Lillian Edna Benedict, '89
Kimberly Sue Caldwell, '89
Julie Ann Corish, '89
Sandra Ann Dicton, '89
Kerry Louise Durgin, '89
Lynne A. Dunn, '90
Susan H. Fleming, '90
Michelle L. Grande, '90
Jill L. Hanna, '90
Susan C. Haux, '90

Cynthia Collier Hoyt, '89
Leslie M. Kuipers, '90
Susan A. Mockus, '90
Gillian Martin Murray, '89
Connie L. Newell, '90
Susan Patten, '89
Jennifer Joan Prince, '89
Barbara J. Rohrer, '90
Randi J. Rush, '90
Victoria Scharuda, '89
Amy L. Sheaffer, '90
Kimberly R. Sheets, '89
Donna M. Szusczewicz, '90
Christina C-M Wee, '89
Jennifer S. Wertz, '89

DEGREES–HONORARY
Doctor of Laws
Doctor of Divinity

George William Au cott, Jr.
Barbara Brown Zikmund
FACULTY AWARDS

Lindback Award

Annette V. Lucas

The Laughlin Professional Achievement Award

Patricia R. Schroeder

ASSOCIATE—BUSINESS ADMINISTRATION

Maureen Walsh Borders
Joseph M. Brango
Barbara Jane Canonica
George Valentine Carroll
Barbara Ann Cepko
Judith A. Civitello
Mark Joseph Clark
Sharon M. Fox
Barbara Susan Groth
Lori Lynn Henderson
Judith K. Hunter
Debra M. Oberdorf

BACHELOR—BUSINESS ADMINISTRATION

Charlene Alba
Margaret A. Booth
Amy E. Burke
Shirley Ann Challingsworth
Rosemary C. Chuck
Linda Ann Dellaquila
Bridget M. Denshaw
Diane E. Dwyer
Lynn M. Grieco
Denise L. Hale
Rosemarie Hardy
Ted M. Heimbach
Holly L. Heitz
Barbara A. Jose
Robert D. Lambert
Suzanne LeMeur

BACHELOR OF ARTS

Keith Aleardi
Dante S. Ardite
Jennifer Ann Auker
Barbara Dee Barclay
Lisa Christine Bathish
Scott Edward Boudier
Georgene B. Brown
Robert Thomas Browne

Patricia E. Paul
Deborah Ann Petrolina
Richard A. Prew
Gary E. Rittenhouse
Joyce N. Rogers
Kathy A. Schweitzer
Wayne H. Shych
William A. Szabo
Nancie M. Tammaro
Denise L. Wayne
LaBelle M. Zeider

Carolyn T. Mastrangelo
Henry Dowie McCullough, Jr.
Joseph Robert Miller
Louis Nagy
Judith Linda Nelson
Nancy L. Nissel
Dianne M. Ricco
Paul L. Rutter
Thomas J. Schiel, Jr.
John Francis Schroeder
Shirley C. Seibel
David I. Smith
Eileen Rafferty Swartz
William Edward Wentzel
Stephen B. Wilcher

Margaret M. Campbell
Robert David Carmignani
Leonard David Chylack
Robert Gerard Cola
Julie Ann Corish
Colman Edward Cuff
Sheree C. Curley
Patricia Zita Curry
Jerald Andrew Singer
Sonia J. Singh
Charles P. Smith
Eric Todd Soeder
John Joseph Spoltore, III
Helen Z. Stauffer
Sharon P. Steigerwalt
Heather T. Strawbridge
Anthony T. Tarone
Jill Kristine Theurer
Gerard Howard Thorn
Laurie Ann Tinkham
Timothy A. Trautmann
Scott Richard Trichon
Mark Robert Vandergast

Robert S. Walder
Patricia Ann Walker
Stephanie Walker
Michael Patrick Walton
Bruce Michael Wenner
Christine Lee White
William T. Wilfong, IV
Joseph John Wilk, Jr.
Keilly Lynn Witman
Tiffany Louise Wood
James Barry Wright
Robert George Yeager, Jr.
Eric D. Yohes
Elizabeth Maureen Young
Joseph Zirpolo

Mary Bridget Eileen Agnes Algeo
Kelly A. Ames
Nadine Renee Ammirato
David Adam Arena
Robin Asplundh
Vishal Bahal
Melissa Kay Bartosh
Nicholas William Bay
Lilian Edna Benedict
Todd Madison Blue
Cheryl Lynn Boehner
Linda Ann Brosz
Stephanie Loveland Brown
Kelly L. Byrne
Kimberly Sue Caldwell
Christine Marie Centofanti
William Cody Cochran '47
Patrick Joseph Costello
Mary E. D'Ambrogi
Martin Scott Dawson
Sandra Ann Dicton
Martin Burton Engelhardt, III
Tammie S. Erb
Ben Timothy Evans
Christopher W. Everleth
Judith Marie Facciolini
Trevor H. Feldman
Cynthia Fay Flanagan
Erika Lyn Fornicola
Paul Mark Frassinelli
Tycho Kenneth Fredericks
Bethany Kay Freed
Laura Jean Freshcorn
Heidi M. Fuller
Patricia Elise Gibbs
Helen Catherine Gold

Steven J. Gooding
Kimberly K. Graeff
Daniel Michael Green
Lauren Jennifer Grossman
Victoria Patricia Halliday
Barbara Lynne Heacock
Tracey Lynn Hitchner
Audrey Elizabeth Hopkins
Kerry Lynne Houpt
Donna Marie Hoy
Cynthia Collier Hoyt
Renee Marie Incollingo
Michael Richard Kalady
Kristina Ellen Kandler
Joseph Merrill Karpinski
Lisa Catherine Sarah Kates
Phleane Marie Kauffman
Kirsten Colleen Kempe
Anne Christian Kisthardt
Kathleen Alayne Klee
Malisa Lea Kristinus
Douglas Lea Kristinus
Douglas Robert Kyle
Patricia Ann Lawless
Lynne Marie Lawson
Rose Miyong Lee
Mark L. Lesh
BethAnn Little
Lori A. LoMonaco
Doreen Ann Malbourn
Michael Joseph Masso
Fred McAlpin, III
David Joseph McDevitt
Sean Patrick McKee
Patricia LeBeau McMahon
William M. Mercadante
### College Calendar for 1990-91

**1990**

<table>
<thead>
<tr>
<th>Month</th>
<th>Date</th>
<th>Day</th>
<th>Event/Deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>15</td>
<td>Monday</td>
<td>Second Semester begins, 8:00 a.m.</td>
</tr>
<tr>
<td>January</td>
<td>26</td>
<td>Friday</td>
<td>Last day to add courses*</td>
</tr>
<tr>
<td>March</td>
<td>1</td>
<td>Thursday</td>
<td>Deadline for freshmen filing financial aid applications (FAF)</td>
</tr>
<tr>
<td>March</td>
<td>2</td>
<td>Friday</td>
<td>Last day to drop courses without recording a failure*</td>
</tr>
<tr>
<td>March</td>
<td>2</td>
<td>Friday</td>
<td>Mid-semester grades due, 4:00 p.m.</td>
</tr>
<tr>
<td>March</td>
<td>2</td>
<td>Friday</td>
<td>Spring vacation begins, 5:30 p.m.</td>
</tr>
<tr>
<td>March</td>
<td>12</td>
<td>Monday</td>
<td>Spring vacation ends, 8:00 a.m.</td>
</tr>
<tr>
<td>March</td>
<td>26</td>
<td>Monday</td>
<td>Fall Semester pre-registration begins</td>
</tr>
<tr>
<td>March</td>
<td>30</td>
<td>Friday</td>
<td>Last day for upperclass students to file an FAF.</td>
</tr>
<tr>
<td>April</td>
<td>6</td>
<td>Friday</td>
<td>Last Day to file PA state grant application</td>
</tr>
<tr>
<td>April</td>
<td>12</td>
<td>Thursday</td>
<td>Fall semester pre-registration ends</td>
</tr>
<tr>
<td>April</td>
<td>17</td>
<td>Tuesday</td>
<td>Easter recess begins, 5:30 p.m.</td>
</tr>
<tr>
<td>May</td>
<td>1</td>
<td>Tuesday</td>
<td>Easter recess ends, 8:00 a.m.</td>
</tr>
<tr>
<td>May</td>
<td>1</td>
<td>Tuesday</td>
<td>Last day of classes</td>
</tr>
<tr>
<td>May</td>
<td>1</td>
<td>Tuesday</td>
<td>Arbor Day</td>
</tr>
<tr>
<td>May</td>
<td>2</td>
<td>Wednesday</td>
<td>Reading Day</td>
</tr>
<tr>
<td>May</td>
<td>3</td>
<td>Thursday</td>
<td>Second semester exams begin</td>
</tr>
<tr>
<td>May</td>
<td>10</td>
<td>Thursday</td>
<td>Second semester exams end</td>
</tr>
<tr>
<td>May</td>
<td>13</td>
<td>Sunday</td>
<td>Baccalaureate service, 10:30 a.m.</td>
</tr>
<tr>
<td>May</td>
<td>13</td>
<td>Sunday</td>
<td>Commencement, 2:00 p.m.</td>
</tr>
<tr>
<td>May</td>
<td>25-27</td>
<td>Fri.-Sun.</td>
<td>Alumni Weekend</td>
</tr>
<tr>
<td>May</td>
<td>29</td>
<td>Tuesday</td>
<td>Pre-summer session begins</td>
</tr>
<tr>
<td>June</td>
<td>2</td>
<td>Saturday</td>
<td>Freshman orientation</td>
</tr>
<tr>
<td>June</td>
<td>9</td>
<td>Saturday</td>
<td>Freshman orientation</td>
</tr>
<tr>
<td>June</td>
<td>18</td>
<td>Monday</td>
<td>Pre-summer session ends</td>
</tr>
<tr>
<td>June</td>
<td>25</td>
<td>Monday</td>
<td>Summer session begins</td>
</tr>
<tr>
<td>July</td>
<td>16</td>
<td>Monday</td>
<td>Summer session ends</td>
</tr>
<tr>
<td>August</td>
<td>23</td>
<td>Thursday</td>
<td>Faculty conference</td>
</tr>
<tr>
<td>August</td>
<td>23</td>
<td>Thursday</td>
<td>Freshman check-in</td>
</tr>
<tr>
<td>August</td>
<td>26</td>
<td>Sunday</td>
<td>Upperclass students check-in</td>
</tr>
<tr>
<td>August</td>
<td>27</td>
<td>Monday</td>
<td>First Semester begins, 8:00 a.m.</td>
</tr>
<tr>
<td>August</td>
<td>28</td>
<td>Tuesday</td>
<td>Ursinus Day Convocation, 11:15 a.m.</td>
</tr>
<tr>
<td>September</td>
<td>3</td>
<td>Monday</td>
<td>Labor Day holiday</td>
</tr>
<tr>
<td>September</td>
<td>7</td>
<td>Friday</td>
<td>Last day to add courses*</td>
</tr>
<tr>
<td>September</td>
<td>22</td>
<td>Saturday</td>
<td>Parents' Day</td>
</tr>
<tr>
<td>October</td>
<td>6</td>
<td>Saturday</td>
<td>Homecoming Day</td>
</tr>
<tr>
<td>October</td>
<td>12</td>
<td>Friday</td>
<td>Last day to drop courses without recording a failure*</td>
</tr>
<tr>
<td>October</td>
<td>12</td>
<td>Friday</td>
<td>Mid-semester grades due, 4:00 p.m.</td>
</tr>
<tr>
<td>October</td>
<td>17</td>
<td>Wednesday</td>
<td>Mid-semester grades mailed (freshmen)</td>
</tr>
<tr>
<td>October</td>
<td>19</td>
<td>Friday</td>
<td>Fall holiday</td>
</tr>
<tr>
<td>November</td>
<td>4</td>
<td>Sunday</td>
<td>Founders' Day</td>
</tr>
<tr>
<td>November</td>
<td>5</td>
<td>Monday</td>
<td>Spring term registration begins</td>
</tr>
<tr>
<td>November</td>
<td>16</td>
<td>Friday</td>
<td>Spring term registration ends</td>
</tr>
<tr>
<td>November</td>
<td>21</td>
<td>Wednesday</td>
<td>Thanksgiving recess begins, 5:30 p.m.</td>
</tr>
<tr>
<td>November</td>
<td>26</td>
<td>Monday</td>
<td>Thanksgiving recess ends, 8:00 a.m.</td>
</tr>
<tr>
<td>December</td>
<td>5</td>
<td>Wednesday</td>
<td>Last day of classes</td>
</tr>
<tr>
<td>December</td>
<td>5</td>
<td>Wednesday</td>
<td>Last day to drop a course</td>
</tr>
<tr>
<td>December</td>
<td>6</td>
<td>Thursday</td>
<td>Reading Day</td>
</tr>
<tr>
<td>December</td>
<td>7</td>
<td>Friday</td>
<td>First semester examinations begin</td>
</tr>
<tr>
<td>December</td>
<td>14</td>
<td>Friday</td>
<td>First semester examinations end</td>
</tr>
</tbody>
</table>

*NOTE: These dates do not apply to health, physical education and recreation activities courses for non-majors. Deadlines for adding these courses are January 19, March 16, August 31, and October 18, 1990. Deadlines for dropping without recording a failure are February 7, April 6, September 19, and November 7, 1990.
<table>
<thead>
<tr>
<th>Month</th>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>14</td>
<td>Monday</td>
<td>Second semester begins, 8:00 a.m.</td>
</tr>
<tr>
<td>January</td>
<td>25</td>
<td>Friday</td>
<td>Last day to add courses*</td>
</tr>
<tr>
<td>March</td>
<td>1</td>
<td>Friday</td>
<td>Deadline for freshmen filing financial aid applications (FAF)</td>
</tr>
<tr>
<td>March</td>
<td>1</td>
<td>Friday</td>
<td>Last day to drop courses without recording a failure*</td>
</tr>
<tr>
<td>March</td>
<td>1</td>
<td>Friday</td>
<td>Mid-semester grades due, 4:00 p.m.</td>
</tr>
<tr>
<td>March</td>
<td>11</td>
<td>Monday</td>
<td>Spring vacation begins, 5:30 p.m.</td>
</tr>
<tr>
<td>March</td>
<td>28</td>
<td>Thursday</td>
<td>Spring vacation ends, 8:00 a.m.</td>
</tr>
<tr>
<td>March</td>
<td>1</td>
<td>Monday</td>
<td>Last day for upperclass students to file PA state grant application and FAF</td>
</tr>
<tr>
<td>April</td>
<td>2</td>
<td>Tuesday</td>
<td>Easter recess ends, 8:00 a.m.</td>
</tr>
<tr>
<td>April</td>
<td>2</td>
<td>Tuesday</td>
<td>Fall semester registration begins</td>
</tr>
<tr>
<td>April</td>
<td>12</td>
<td>Friday</td>
<td>Fall semester registration ends</td>
</tr>
<tr>
<td>April</td>
<td>30</td>
<td>Tuesday</td>
<td>Last day of classes</td>
</tr>
<tr>
<td>April</td>
<td>30</td>
<td>Tuesday</td>
<td>Last day to drop a course</td>
</tr>
<tr>
<td>April</td>
<td>30</td>
<td>Tuesday</td>
<td>Arbor Day</td>
</tr>
<tr>
<td>May</td>
<td>1</td>
<td>Wednesday</td>
<td>Last Day to file PA state grant application</td>
</tr>
<tr>
<td>May</td>
<td>1</td>
<td>Wednesday</td>
<td>Reading Day</td>
</tr>
<tr>
<td>May</td>
<td>2</td>
<td>Thursday</td>
<td>Second semester examinations begin</td>
</tr>
<tr>
<td>May</td>
<td>9</td>
<td>Thursday</td>
<td>Second semester examinations end</td>
</tr>
<tr>
<td>May</td>
<td>12</td>
<td>Sunday</td>
<td>Baccalaureate service, 10:30 a.m.</td>
</tr>
<tr>
<td>May</td>
<td>12</td>
<td>Sunday</td>
<td>Commencement, 2:00 p.m.</td>
</tr>
<tr>
<td>May</td>
<td>24-26</td>
<td>Friday-Sunday</td>
<td>Alumni Weekend</td>
</tr>
<tr>
<td>June</td>
<td>1</td>
<td>Saturday</td>
<td>Freshman orientation</td>
</tr>
<tr>
<td>June</td>
<td>8</td>
<td>Saturday</td>
<td>Freshman orientation</td>
</tr>
</tbody>
</table>

*NOTE: These dates do not apply to health, physical education and recreation activities courses for non-majors. Deadlines for adding these courses are January 18 and March 15, 1991. Deadlines for dropping without recording a failure are February 6 and April 3, 1991.*
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2. Lighted football field  
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4. Soccer field  
5. Patterson Field  
6. Tennis courts  
7. Heifferich Hall  
8. Baseball diamond  
9. Utility gym  
10. Ritter Center  
11. Book store  
12. Reimert Complex  
13. Life Sciences Building  
14. Isenberg Hall  
15. Majorie T. Elliott House  
16. (President's Home)  
17. 777 Main Street  
18. Omwake Hall  
19. Pfahler Hall  
20. Curtis Hall  
21. Wilkinson Hall  
22. Myrin Library  
23. Bomberger Hall
Ursinus College is located in Collegeville, a borough in Montgomery County, Pa., 25 miles northwest of Philadelphia, and just a few miles from the Norristown and Valley Forge exits of the Pennsylvania Turnpike.