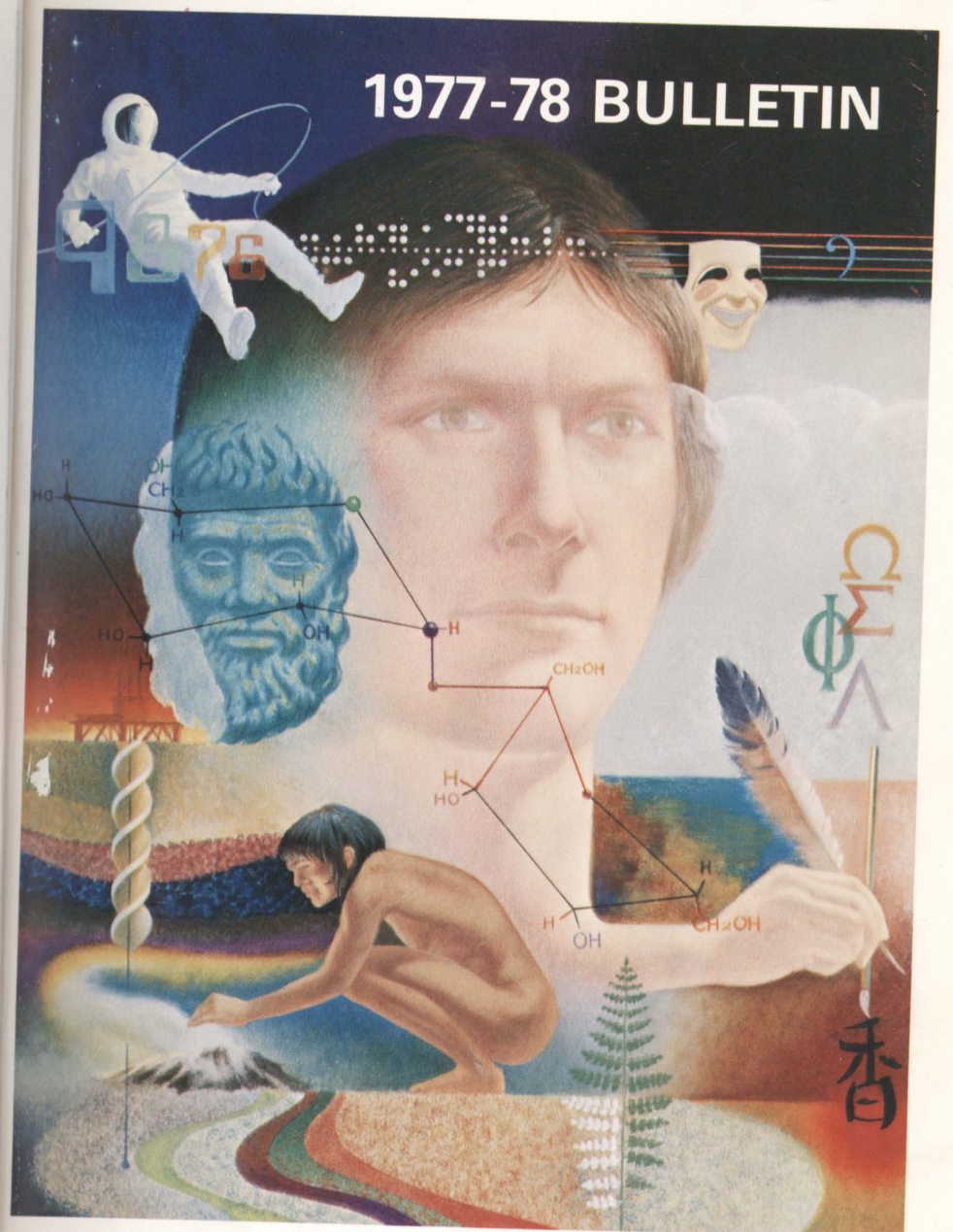


# wilkes college





No college bulletin — no matter how full of descriptive material, pictures, maps, charts, or courses of study — can fully delineate the scope of a college education.

The mission of Wilkes College is education and within this Bulletin are contained, with as much detail as space will allow, the means whereby this mission is attained.

The provisions of this Bulletin, however, are not to be regarded as an irrevocable contract between the student and the College. The College reserves the right to change any provisions or requirements at any time within the student's term of residence.

Wilkes College is An Equal Opportunity/Affirmative Action Institution.

No applicant shall be denied admission to Wilkes College because of race, color, sex, religion or national or ethnic origin.

Wilkes College shall not discriminate on the basis of race, color, sex, religion, or national or ethnic origin, in the employment of staff, in the administration of its educational policies, scholarships, loan programs, athletics, or any other College-administered programs.

Eugene S. Farley Library — named in honor of the College's first President





*Eugene S. Farley Library — named in honor of the College's first President*

# WILKES COLLEGE *Bulletin*

UNDERGRADUATE STUDIES

1977 - 1978

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1933

WILKES COLLEGE WILKES-BARRE, PA.



## ARCHIVES

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## Wilkes College

Wilkes College had its beginning in 1933 when Bucknell University, responding to a request of community leaders, established its Junior College in Wilkes-Barre. On June 26, 1947, Bucknell University Junior College came to an end and Wilkes College received its charter as a four-year, coeducational, liberal arts college. The College has grown to its current enrollment of approximately 2,000 full-time day students and 500 part-time evening school students and over 300 graduate students.

From its inception the College has been dedicated to these twin goals — a sound and stimulating intellectual experience for students and a program of service to the community.

It was inevitable that the new college should be non-sectarian, for its purpose was to serve all students equally and its supporters wished the College to integrate itself with all constructive efforts in the community. It was believed that these ends could be served best by an independent college that was interdenominational in its influence and non-denominational in its control. With responsibility came a pressing desire to strengthen the work of the faculty, united in their belief that the intellectual and spiritual resources of the student are vigorous where the creative mind is free.

A college that wishes to serve all groups requires both a definite philosophy and a working policy. Wilkes College has been guided by the thought that unity in our community, our nation, and our world requires not only great vision but warm understanding of peoples. In its small circle Wilkes College brings together students of many faiths, backgrounds, and countries. It encourages them to maintain their convictions and their loyalties. It also encourages them to create friendships based upon respect for differences, and to adhere to those ideals that create unity and good will amidst diversity.

## ACCREDITATION

Wilkes College is accredited by the Department of Education of the Commonwealth of Pennsylvania and the Middle States Association of Colleges and Secondary Schools.

In addition to the total program accreditation certain special areas are recognized by professional societies. The Chemistry curriculum is approved by the American Chemical Society.

The baccalaureate program in nursing is fully approved by the Pennsylvania State Board of Nurse Examiners and the Department of

78-144625



Nursing is also a member of the Council of Baccalaureate and Higher Degree Programs, National League for Nursing. Graduates of this program are eligible for admission to the examination for licensure to practice professional nursing in any state.

## THE COLLEGE COMMUNITY

### STUDENT LIFE

An active Student Government and numerous campus clubs and organizations provide a structure of activities for student life outside of the classroom. An Inter-Dormitory Council and Commuter Council plan and coordinate activities for on-campus and off-campus students as well.

In addition to the curricular and co-curricular activities of particular organizations, a number of all-campus events are held each year. Parents' Day, Homecoming, Winter Carnival, and the Spring Weekend are typical of the social and cultural events which are regarded as important in the development of an active and involved student body.

The College also offers an outlet for students interested in developing their communications skills. Students publish the *Beacon*, a weekly newspaper; the *Manuscript*, a journal of art, poetry, and fiction; and the *Amnicola*, the College annual.

The College also maintains an FM radio station, WCLH, which is operated by students and broadcasts daily throughout the Wyoming Valley.

Other student activities include the Theater, the College Band, College Choruses, numerous brass, woodwind, and percussion ensembles, Madrigal Singers, and an active intercollegiate forensics and debate organization.

### ATHLETICS

The College views men's and women's athletics as an integral part of the activity program. An active intramural sports program is maintained each year, and the College also schedules intercollegiate athletic contests in eleven varsity sports: football, baseball, basketball, soccer, golf, tennis, swimming, wrestling, cross-country, field hockey, and lacrosse.

One of the highlights of the athletic year is the Wilkes Open Wrestling Championship. This annual tournament attracts athletes from over sixty colleges, athletic clubs, and YMCA's throughout the United States. The tournament, the largest in the country, has the record for the greatest number of entries.

The College is a member of the Middle Atlantic Collegiate Athletic Conference, the National Collegiate Athletic Association, the Eastern Collegiate Athletic Conference, the Association for Intercollegiate Athletics for Women, the Eastern Association for Intercollegiate Athletics, Northeastern Pennsylvania Intercollegiate Athletic Association for College Women, and the Susquehanna Field Hockey Association.

### POLICY

It is College policy that all campus organizations be open to all students; consequently, groups that are exclusive do not exist. All student groups work in cooperation with faculty advisors and deans.

## The College and The Community

Wilkes College, in both its official and unofficial capacities, views itself as sharing a vital and mutually-enriching partnership with both the Wilkes-Barre and Northeastern Pennsylvania communities.

The College has long recognized that its growth was related to the economic and social development of the community and, therefore, it has sought actively and enthusiastically to participate in every effort for community betterment.

### INSTITUTE OF REGIONAL AFFAIRS

The Institute of Regional Affairs has been established by Wilkes as a multi-purpose organization which views regional problems as belonging to no single academic discipline, but rather as opportunities for multi-disciplinary community involvement. Its resources include not only the College faculty, but also those experts in the region who can lend their talents to the solution of various of the region's problems. Its four-fold purpose is: education and training, community information, research, and consultation.

Among the activities of the Institute of Regional Affairs are included: a management training program under which special classes are organized for personnel in industry, commerce, and banking; individually-designed programs for members of labor unions; a Municipal Government Program which offers in-service training activities for local government officials; and a Research Center which is available to faculty, administration, and alumni.

As a result of the support and the success of the College's Institute of Regional Affairs, an independent Economic Development Council has also been established to serve Northeastern Pennsylvania. The College has supported a number of programs in their infancy and helped them become independent, community activities.



### EDUCATIONAL DEVELOPMENT CENTER

By mutual agreement with the Pennsylvania Department of Education, an arm of the Educational Development Center has been established on the campus of Wilkes College. The Center located at Wilkes has as its statewide mission the development of curriculum models in various disciplines for elementary and secondary education. At the local level the center has helped to plan the functions of the local intermediate unit and continues to work closely with the unit to provide service to school districts in the area.

### SIGMA XI

Sigma Xi, the Scientific Research Society of North America, has established a local affiliate on the Wilkes College campus. The Club serves as a forum for cooperation and exchange of ideas among research-oriented scientists in the area. The Club welcomes as members local collegiate, professional, and industrial researchers engaged in original scientific investigations.

### CULTURAL ACTIVITIES

Wilkes also plays an active role in the support and development of various cultural activities throughout the region. Members of the faculty and student body participate in the Northeastern Pennsylvania Philharmonic orchestra and the Wyoming Valley Oratorio Society. The College joins area-wide cultural groups each year for the Fine Arts Fiesta, a four-day festival of music, drama, and the arts presented each spring, and the annual week-long Cherry Blossom Festival.

An active Theater program, as well as a carefully selected Concert and Lecture Series, is presented throughout the regular college year. The Concert and Lecture Series is open to the College family and the public without charge as a Wilkes College service to the community.

## Policies and Objectives

### Admissions

### Registration

### Tuition, Fees, and Expenses

### Financial Assistance

### Trust Funds, Scholarships, and Awards



Stark Learning Center



## Admissions

Candidates applying for admission to Wilkes should have at least fifteen units of work representing the equivalent of the usual four-year secondary school college preparatory school course. For entrance into certain departments, specific courses in secondary school are necessary.

Students intending to major in Biology, Chemistry, Computer Science, Engineering, Mathematics, Medical Technology, or Physics should have at least three years of college preparatory mathematics courses (including algebra II, geometry, and topics in trigonometry) so as to be prepared to take Math. 105 or 111 (calculus) in the first term of the freshman year. The student without such background is advised to take, preferably in the summer preceding entrance, Math. 100 (algebra and trigonometry) offered at Wilkes or an equivalent course at another college or university. Credits in such remedial courses will not exempt the student from any required elective in these programs.

### APPLICATION FOR ADMISSION

Applications for admission and instructions regarding secondary school records, recommendations, and entrance examinations may be obtained from the Dean of Admissions. The completed applications should be returned with a \$10 application fee.

### ADMISSIONS TESTS

The Scholastic Aptitude Test of the College Entrance Examination Board is required of all applicants. Students should plan to take this examination in December or January of their senior year. If unusual circumstances prevent the applicant from taking this test, he must notify the Dean of Admissions. Students who wish the Admissions Committee to review their application on the basis of College Boards taken in their junior year should make this request in writing to the Dean of Admissions. Wilkes is a member of the College Entrance Examination Boards.

Students communicating with the Educational Testing Center in Princeton, New Jersey, or in Los Angeles, California, should refer to the Wilkes College code number 2977.

### ACCEPTANCE OF ADMISSION AND DEPOSIT

After receipt of the secondary school record, the secondary school recommendations, and the senior College Board scores, the Admis-

sions Office acts upon all applications. Notification of action is sent immediately. Resident students are required to forward a \$100 tuition and dormitory deposit by May 1 in order to guarantee their entry into the College. Commuting students are required to forward a \$50 tuition deposit by May 1.

The College accepts a limited number of applications for the spring semester. Procedures are similar to those followed in the fall semester.

### PERSONAL INTERVIEWS

A personal interview with each student is not required. Students and their families are invited to visit the College at their convenience. It is advisable to write for an appointment so that the appropriate deans may arrange to meet with them.

Music applicants are required to audition for the music faculty.

### TRANSFER STUDENTS

Candidates from other institutions wishing to enter with advanced standing shall follow the regular procedure for admission. The student should have official transcripts forwarded to the Admissions Office of all college work completed. Students offered admission should secure a personal interview with the Dean of Admissions, at which time an evaluation of the transfer credits will be made and a tentative program scheduled. This program will be subject to final review by the faculty adviser at the time of registration. Acceptable credits will be placed on the Wilkes record of the student following a final evaluation. Students transferring into the nursing program will arrange their scheduling and registration in consultation with the Department of Nursing.

College policy prohibits the Admissions Committee from considering or admitting any student who has been placed on academic probation or who has been dismissed from any other college or university until a period of one year has elapsed.

### ADVANCED COURSE STANDING

Students who have undertaken college-level courses in secondary school or students who have demonstrated ability in a particular subject area may request college credit for such work and permission to enter advanced courses. To qualify for advanced placement, the student must obtain the recommendation of the department involved based upon that department's criteria for granting such credit.

On the basis of comprehensive examinations, the College grants credits in certain courses to entering students who, by enrollment in advanced placement courses in secondary schools or self-study, can



demonstrate mastery of the material covered in the courses involved. Interested persons may contact the chairpersons of the respective departments for further details.

### **CLEP (College Level Examination Program)**

Wilkes College students may receive credit through the CLEP examinations.

### **Counseling**

The guiding principle of all Wilkes counseling is to encourage students to discover their own abilities and potential and to assist them in making sound, independent decisions.

### **FRESHMAN ORIENTATION PROGRAM**

The transition from the directed work of the high school to the independent and more intensive work of the College occasionally causes difficulty. Several days during the summer and at the beginning of the term are, therefore, set aside to assist freshmen in planning their academic programs.

During this period, new students may take aptitude and interest tests. New students are given an opportunity to become acquainted with one another and to learn about the College, the curriculum, and the student activities.

### **STUDENT ADVISEMENT**

Students sometimes need guidance in resolving personal, social, and academic difficulties. Since a student's physical and mental health affect his studies and his grades, he is encouraged throughout his college career to consult with his classroom instructors, his faculty advisor, the deans, or the department chairmen concerning his scholastic progress.

### **EVENING DIVISION**

The Evening Division offers educational opportunities to adults who cannot attend day classes. Students may register for courses in the Evening Division and earn credits toward an undergraduate degree. Graduate courses are also offered during the evening hours.

Students will confer with the Director of the Evening Division to arrange a course of study to meet their needs, abilities, and special requirements. During the semester students will consult with the Director of the Evening Division concerning their program.

When the student completes thirty hours, his record is reviewed by

the Admissions Committee. At this time the Committee recommends continued work for a degree, probation, or withdrawal from the Evening Division.

Non-degree students may be admitted to classes which they are qualified to take by reason of their maturity, previous education, and work experience. Secondary school training is desirable but not necessary, provided the student is qualified to follow such special courses of instruction.

### **SUMMER DIVISION**

The faculty offers selected courses during two five-week day sessions and one eight-week evening session. The course offerings are listed each year in the Summer College Bulletin.

A student from Wilkes College who wishes to take summer work at another institution must secure the approval of the Academic Standing Committee. Application in writing shall be made through the office of the appropriate dean.

Inquiries and information on course offerings should be directed to the Director of Continuing Education and Graduate Studies.

### **GRADUATE DIVISION**

Information concerning admission to the Graduate Division may be obtained from the Office of the Director of Graduate Studies. The College issues a supplementary graduate bulletin.

### **REGISTRATION**

Every student is expected to register on the dates specified in the College calendar. Students who register after these dates will pay a late registration fee of \$10.

Incoming freshmen will be registered during the summer for their first semester program. Inquiries regarding clarification or change should be directed to the Dean of Admissions.

### **STUDENT RECORDS**

In accordance with the provisions of "The Family Educational Rights and Privacy Act of 1974," students, upon request, will be given access to all their evaluative records which have been established by Wilkes College. Such records might typically include those maintained by the Placement Office, the Health Services Office, the Registrar's and the Dean's Offices. These records will be open to inspection in the presence of the appropriate college official. Students wishing to review their files must make an appointment at least one day in advance.



## Expenses

### TUITION

The flat tuition fee of \$1,350 per semester (1977-78) will be charged to all students taking a course load of fourteen to eighteen hours. A student who takes twelve to thirteen and one-half hours will be charged at the rate of \$90 per credit hour. A student who elects a heavier schedule than eighteen hours will be charged \$90 for each additional credit hour.

Students enrolled in day or evening courses on a part-time basis, eleven or less hours, as well as students enrolled in the Summer Division will be charged \$70 per credit hour.

### Residence Halls

On-campus living is available to full-time single men and women students in separate men's and women's residence halls situated throughout the campus. Each residence hall is staffed by graduate or undergraduate Resident Assistants, who provide guidance and supervision and assist in the development of a constructive learning environment in each residence hall.

Each room is equipped with beds, desks, chairs, bureaus and closets. Clean bed linen and towels are provided weekly. Students supply their own blankets, pillows and study lamps. Each residence hall is equipped with television sets, laundry facilities, and lounges. Prospective students and their families are invited to visit the residence halls at any time.

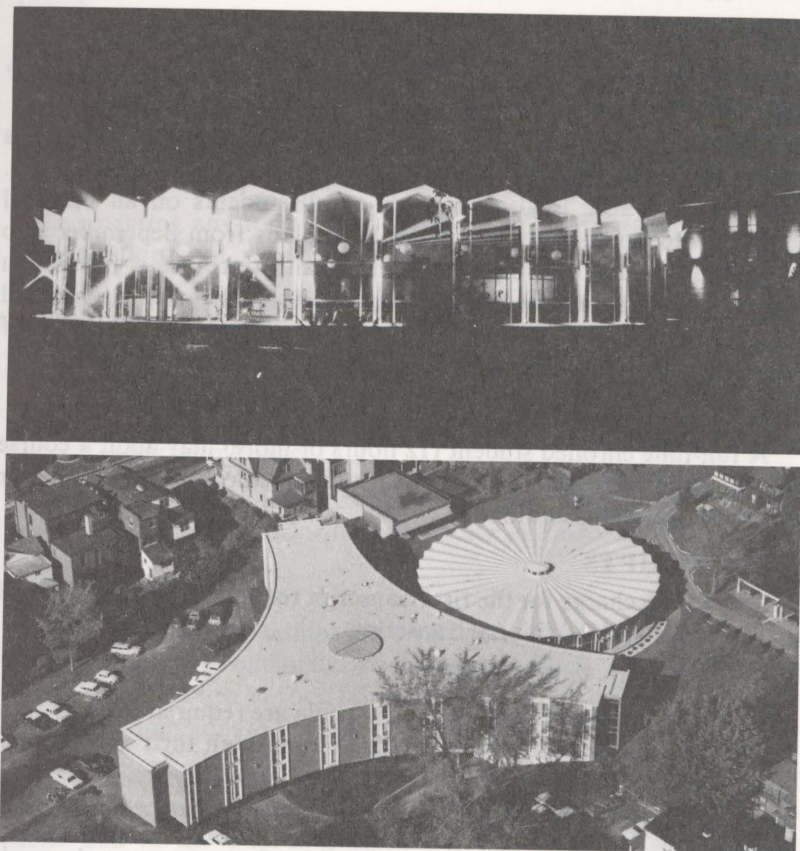
All full-time undergraduate students who are under 18 years of age are required to reside in Wilkes College residence halls during their first and second semesters unless they have been granted permission from the Housing Office to reside off campus, or unless they commute from the home of their parents or legal guardian. Students who have achieved sophomore class standing may live off campus.

Returning resident students must file a signed residence hall contract with a \$50 deposit by May 1 to be eligible to select a room. Housing contracts are binding for the full academic year (See Refunds). The cost of room and board is \$725 per semester. This charge includes the cost of health service, linen rental, room rent, and twenty meals per week. If a student notifies the Housing Office prior to August 1 of his intentions not to return to residence, the \$50 residence hall deposit will be refunded. After August 1, no refund of this deposit is permitted.

Resident students are required to contract for board charges. Exception to this policy will not be made without formal recommendation from the College physician and approval of the Council of Deans.

Resident students are required to maintain a minimum balance of \$50 on deposit for damage with the College so long as the student is enrolled. Charges for damage to College property, parking fines and other unpaid expenses may be automatically deducted from this deposit. When students graduate or terminate matriculation at the College, they will be given the refundable portion of this deposit.

Information regarding residence halls can be obtained from the Office of Admissions or the Housing Office.



Dining Complex and Pickering Hall



**FEES**

For courses that require individual faculty supervision or the addition of supplies and equipment it is necessary to charge nominal fees. These fees are listed in the Bulletin with the course description.

Medical technology students will be charged the regular College tuition in both the seventh and eighth semesters. The College will pay the hospital tuition charges.

The cost of individual instruction in applied music is \$65 for full-time students (12 credits or more) for a series of fourteen half-hour lessons. The College accepts a limited number of part-time and special students for individual instruction in applied music for a series of fourteen half-hour lessons at a cost of \$75 per semester.

A student activities fee of \$25 provides for special programs, including plays, concerts, recitals, lectures, and home athletic events.

All graduating seniors will be charged a graduation fee of \$40.

The cost of books and supplies will vary with the course of study, but will average approximately \$75 to \$150 per semester.

A Health Care Fee of \$20 is required of each student. Part of this fee provides the student with a \$1,000 Accident Insurance Plan. Sickness insurance is also available to all students on an optional basis. Protection is provided under both plans from September 1 to August 31 of the following year. The Health Care Fee is payable in full with the first semester charges. If sickness insurance is also desired the student should contact the Finance Office. The Health Care Fee of all resident students is prepaid as part of the dormitory fee.

**AUDIT**

A full-time enrolled student (12 hours or more) may audit a course for no additional charge. Part-time students may audit a course for one-half the regular tuition fee.

**TRANSCRIPTS**

There is no charge for the first transcript requested. The student will pay a fee for each additional transcript.

**LIABILITY INSURANCE**

Students enrolled in health care curricula are required to carry their own liability insurance which is available through their professional organizations.

**PAYMENTS**

All payments for tuition, room and board, fees, etc., are to be made

at the Finance Office, Parrish Hall, before classes begin. Several plans have been developed to assist students who are experiencing financial difficulties. Students may consult with the Director of Financial Aid for information regarding these plans, as well as other scholarship and loan programs.

**REFUNDS**

Students in good standing who withdraw from the College for adequate and satisfactory reasons are eligible to receive a one-half tuition refund so long as the withdrawal occurs during the first six weeks of the semester. After the first six weeks no refunds are allowed and the student is obligated for the full costs of the term.

Refund of dormitory charges will not be made except under demonstrated conditions beyond the control of the student, nor will any suspended or expelled student be entitled to any refunds whatsoever.

**Financial Assistance**

To provide assistance for those who need financial help, the College receives substantial gifts from friends. These gifts provide scholarship aid to those who are already making every effort to help themselves.

In accepting any form of aid from the College the students accept an obligation to:

1. Maintain a good scholastic record.
2. Exert a constructive influence in the College and the community.
3. Participate constructively in an all-college activity of their own choice.

**Inquiries and applications regarding all financial assistance programs should be initiated with the Director of Financial Aid.**

**Scholarships**

A number of scholarships are awarded without regard to financial need to students of outstanding achievement. High school seniors who desire to be considered for a scholarship should apply in writing to the Dean of Admissions at the time of application for admission.

Intercollegiate athletics are introduced for the benefit of all students and in consequence athletes receive the same consideration in admissions and in the awarding of scholarships that is given to other students.



## Financial Aid REQUIREMENTS

1. Students must be admitted to the College before their applications for financial aid will be considered.

2. The primary responsibility for financing the cost of education rests with the student and his family. Consequently, financial aid will be granted only after they have made every reasonable effort to finance as large a portion of the student's education as possible. When such support is lacking, the College will seek to develop with the student a plan whereby his education may be continued through work, loans, and scholarships.

3. Every applicant for financial aid shall submit confidential information pertaining to the applicant's financial needs and his record of achievement.

4. Aid awarded to a student from sources outside the College must be reported to the College by the student. All such aid shall be taken into consideration to insure the most equitable distribution of funds. When necessary, a financial aid package awarded by the College may be adjusted in light of aid awarded by outside sources.

5. Financial aid will be forfeited if the student at any time carries fewer hours than are normal for his course of study.

6. Financial aid is awarded for a one-year period. Aid will be renewed upon request, however, provided the request is supported by a good academic record, evidence of continued need, and constructive participation in at least one all-college activity of the student's choice.

7. The amount of the aid is confidential. Any breach of this confidence shall terminate the award.

## INSTRUCTIONS TO THE APPLICANT

1. To establish eligibility for financial aid, the student must first be accepted for admission to the College.

2. Students requesting financial aid shall indicate this in the appropriate space on the application for admission.

Wilkes College participates in the College Scholarship Service (CSS) of the College Entrance Examination Board. Participants in the College Scholarship Service subscribe to the principle that the amount of financial aid granted a student should be based on financial need. The College Scholarship Service assists colleges and universities in determining the student's need for financial assistance. All entering

students applying for financial aid are required to submit a copy of the Financial Aid Form (FAF) to the College Scholarship Service, designating Wilkes College as one of the recipients, by February 1. The Financial Aid Form may be obtained from a secondary school guidance office or the College Scholarship Service, P. O. Box 176, Princeton, New Jersey 08540.

3. After the student has been accepted for admission and after a copy of the Financial Aid Form is received, the Committee on Financial Aid acts on all completed applications. Notification of action by the Committee is sent immediately.

## Grant-In-Aid

### WILKES SCHOLARSHIPS

To assist qualified students, friends and alumni support a substantial scholarship fund that enables the College to more adequately serve its students. Wilkes College is dedicated to the belief that no student who is eligible for admission to the College should be denied the chance to begin a college education, nor forced to withdraw after matriculation for purely financial reasons.

Wilkes Scholarship grants are available to students with good records of achievement and performance in high school or college who cannot finance fully the cost of their education. These funds, combined with those furnished by the State and Federal Governments, are offered to students in packages consisting usually of grants, loans, and work.

### BASIC EDUCATIONAL OPPORTUNITY GRANTS

Federal Grants ranging from \$200 to \$1,400 are available to those students who demonstrate need. The amount of individual grants are related directly to the student's eligibility index as determined by the Basic Grants Program and cost of education. Application forms are available at any Federal Office or the College Financial Aid Office.

### SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANTS

Federal grants ranging from \$200 to \$1,000 are available to those students demonstrating exceptional financial need, who, except for this aid, would be unable to obtain a higher education. Although these grants are intended to supplement Basic Grants, these also may be awarded to students whose expected parental contribution, as determined by the College Scholarship Service, does not exceed one-half the student's educational costs.



### STATE SCHOLARSHIPS

The Commonwealth of Pennsylvania offers direct grants to students meeting the criteria set forth by the Pennsylvania Higher Education Assistance Agency (PHEAA) program. High school students from other states wishing information concerning their state's program should contact their guidance counselor.

### Loans

#### STUDENT LOAN FUNDS

The Florence and Joseph A. Goldman Loan Fund has been created by the donors to assist juniors and seniors whose education may be interrupted by unexpected difficulties. The loan bears no interest and is to be repaid by the student at the earliest practical time so that other students may receive needed assistance from this revolving loan fund.

The Robert W. Hall Student Loan Fund was established by Robert W. Hall, class of 1951, to assist students in meeting small emergency financial needs.

#### GULF OIL CORPORATION STUDENT LOAN FUND

In 1972, the Gulf Oil Corporation established this revolving loan fund to make low-interest loans available to students who have exhausted all other means of obtaining financial assistance. Loans are interest-free while the student remains at the College, and are to be repaid within five years after the student leaves Wilkes.

#### NATIONAL DIRECT STUDENT LOAN FUND

Long-term, low-interest loans are available to students who demonstrate financial need. The amount of the loan is determined by need with a maximum of \$1,000 per academic year. Interest and repayment are deferred until the student leaves school. The program includes cancellation benefits for graduates who teach in schools having a high concentration of students from low-income families or who teach handicapped children. Graduates who enter military service are also accorded cancellation privileges. Applicants will be notified by the Committee if their financial aid package includes a National Direct Student Loan.

#### NURSING STUDENT LOANS

Federal loans of up to \$2,500, depending on demonstrated need, are available to students enrolled in the Department of Nursing. Interest and repayment are deferred until the student leaves school. Borrowers may cancel up to 85 per cent of the total loan, plus interest, if employed as a full-time registered nurse in any public or private non-profit agency, institution or organization, or agrees to serve as a

registered nurse in an area designated as a shortage area. The actual percentage of cancellation depends on the type of service performed and the number of years of such employment completed.

### STATE GUARANTY LOAN PROGRAMS

Most states now operate guaranteed loan programs which enable students to borrow from their local banks to meet educational expenses. Ordinarily, no interest is charged while the student remains in school if the family's adjusted gross income is below \$25,000, nor on that portion of the loan recommended by the Financial Aid Office after an evaluation of the financial need of the student. Applications and further information are available at the student's hometown bank, savings-and-loan association, or credit union participating in the program.

### Employment

#### PART-TIME EMPLOYMENT

The College cautions the student to limit off-campus work, especially during the freshman year, when working may result in academic failure.

However, part-time jobs in offices, stores, and industry are available for students wishing to earn part of their expenses. For such jobs the student will register with the College Placement Office.

#### COLLEGE EMPLOYMENT

The College participates in the College Work-Study Program in conjunction with the Federal Government. Part-time employment, not to exceed 15 hours per week during class periods, is available in a variety of on-campus departments. Prospective employees must meet financial need requirements set forth by the Federal Government. Student-employees shall meet all obligations of their assignments or forfeit this help from the College.

#### DEFERRED PAYMENT PLANS

The College has authorized the operation of three plans through which costs of tuition and other educational expenses may be met from current family income. These loan agreements are to be repaid during the year through monthly repayment plans. Additional information can be secured through the Financial Aid Office or by writing to:

The Tuition Plan  
Concord,  
New Hampshire 03301

EFI Management Program  
36 South Wabash - Room 1000  
Chicago, Illinois 60603

Insured Tuition Payment Plan  
53 Beacon Street  
Boston, Massachusetts 02108



## TRUST FUNDS, ENDOWED SCHOLARSHIPS AND AWARDS

### Founders of Scholarships

Some 1,000 friends contribute to the scholarship fund of the College on an annual basis. Other friends have created scholarships and awards which bear the names of the donors or of persons whom they have memorialized by means of a scholarship or other special recognition.

**ARNAUD CARTWRIGHT MARTS SCHOLARSHIP** was created by the associates of Dr. Arnaud C. Marts, in the firm of Marts & Lundy, to honor the chairman of their company.

As president of Bucknell University, Dr. Marts was instrumental in the establishment of Bucknell University Junior College, which became Wilkes College in 1947. After Wilkes College became an independent college, he joined its Board of Trustees and was elected vice-chairman of the Board.

The Arnaud C. Marts Scholarship will be awarded each year to the outstanding senior who has need of financial aid and who, by high scholarship and participation in college activities, has demonstrated those qualities of leadership that are needed in Wilkes College and in the nation.

**KEVIN EDWARD BARKER MEMORIAL SCHOLARSHIP** was created in 1972 in memory of a former student of Wilkes College, Kevin Edward Barker, by his family and friends. This fund provides partial scholarship assistance to a male graduate of Wyoming Valley West High School in recognition of high academic achievement and involvement in extra-curricular activities.

**WALTER S. CARPENTER SCHOLARSHIPS IN ENGINEERING.** Scholarships are awarded annually to high school seniors planning on majoring in Materials Science or Electrical Engineering at Wilkes College. The recipients of these awards are selected by the faculty of the Engineering Department on the basis of the applicants' high school records and Scholastic Aptitude Test scores, without regard to financial need. Scholarships are renewable annually upon recommendation of the Department of Engineering. Interested students should apply in writing to the Chairman, Department of Engineering, Wilkes College.

**CONYNGHAM POST NO. 97, GRAND ARMY OF THE REPUBLIC, DEPARTMENT OF PENNSYLVANIA, SCHOLARSHIP.** In 1968, Trustees of Post 97 established a trust at the College,

the annual income of which is used to provide partial scholarships for residents of Luzerne County, with preference given to descendants of veterans of the Civil War.

**DR. AND MRS. S. M. DAVENPORT SCHOLARSHIP TRUST.** Income from an endowed trust provides partial scholarship assistance to a worthy student enrolled in the medical science field. The scholarship bears the name of Dr. S. M. Davenport, one of the original members of the Wilkes College Board of Trustees, and former College physician, and his wife, Mrs. Harriet M. Davenport.

**CHARLES AND SADIE DONIN MEMORIAL SCHOLARSHIPS** are supported by a substantial endowment created by Mr. Donin. These scholarships are awarded to able and highly motivated students of limited financial means.

**JOHN WELLES HOLLENBACK SCHOLARSHIP.** Miss Anna Hollenback has created a scholarship in memory of her father, John Welles Hollenback.

**JEWISH WAR VETERANS, WILKES-BARRE POST 212 SCHOLARSHIP** is established in honor of B. J. Levin, one of the Post's founders. The purpose of this scholarship is to aid the son or daughter of a local war veteran. The award shall be made on the basis of need and ability without regard for race or creed.

**DR. JAROSLAV G. MORAVEC MEMORIAL SCHOLARSHIP.** The Dr. Jaroslav G. Moravec Memorial Scholarship Fund has been established for a student genuinely interested in sociology and anthropology who intends to pursue graduate studies in sociology, anthropology, law, or an allied field. Beginning in 1978-79, this scholarship will be awarded to a student for use during his/her senior year.

**MABEL AND JOHN C. MOSTELLER SCHOLARSHIP FUND** has been created to provide scholarships for needy and intelligent young men who have insufficient financial resources of their own and who would not have the opportunity to attend college if they were unable to secure financial assistance. The scholarships shall be granted only to young men of good moral character who are in the upper ten per cent of their class in academic standing and who have passed a qualifying competitive examination administered by Wilkes College.

**PENNSYLVANIA INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS — NORTHEAST CHAPTER** has created partial tuition scholarships for accounting students entering the senior year, in recognition of high academic endeavor in the study of accounting.



**HENRY BLACKMAN PLUMB AND EDITH PLUMB SCHOLARSHIP TRUST** has been established to provide scholarships for students of outstanding ability and character majoring in one of the sciences and attending Wilkes College.

**KENNETH L. POLLOCK SCHOLARSHIP FUND.** Earnings from the fund provide a scholarship of \$1,000 a year to a senior from Northwest Area High School who matriculates at the College. The recipient is determined by a selection committee of interested individuals from the Northwest Area. Further information concerning application procedures and eligibility requirements is available from the Director of Guidance, Northwest Area High School.

**WILLIAM B. SCHAEFFER MEMORIAL SCHOLARSHIPS.** In 1951 a substantial bequest was left to the College by Mr. Schaeffer to advance the interests of the College and the students. By action of the Board of Trustees a considerable portion of the income from this bequest has been set aside for scholarships.

**MOHAMAD ABRAHAM SCHOLARSHIP** has been created by a gift to the College made by Mohamad Abraham. Its purpose is to assist Palestinian Arabs, or their descendants, to obtain a college education. To qualify, the student must demonstrate the ability to successfully complete the work of the College and must submit evidence of financial need.

**ROBERT MARC SCHUB MEMORIAL SCHOLARSHIP** was established by Mr. and Mrs. Marvin Schub in memory of their son. This scholarship is to be awarded to a local student, preferably studying in the area of the humanities or sciences who otherwise could not attend college. The scholarship will be awarded annually to a worthy student of high potential.

**ANDREW J. SORDONI FOUNDATION SCHOLARSHIP.** This scholarship is used to assist students of unusual promise and proven ability.

**JESSIE STURDEVANT MEMORIAL SCHOLARSHIP** is awarded to a student of unusual promise and ability and has been made available from a fund established by the late Miss Sturdevant.

**MRS. LEWIS H. TAYLOR** left a bequest to the College to be used in assisting students of outstanding scholastic ability who otherwise could not gain a college education.

**ESTHER WECKESSER WALKER SCHOLARSHIP.** This is an endowed scholarship created by Mrs. Walker to assist students of outstanding promise and achievement during their junior and/or senior years.

**FRANCIS A. UMPHRED MEMORIAL SCHOLARSHIP** was established in 1973 by members of the College administration and will be awarded to a capable student demonstrating leadership and ability during each academic year.

**MYVANWY WILLIAMS THEATER SCHOLARSHIP** is presented each year to a student who has demonstrated outstanding interest and ability in drama.

**EMORY AND MAMIE ZIEGLER SCHOLARSHIP TRUST** provides a full-tuition scholarship to a deserving member of the Catholic, Hebrew, or Protestant faiths, who is a resident of Wyoming Valley. Selection is made by a special committee of the student Deans of Wilkes College.

### ANNUAL NAME SCHOLARSHIPS

**M. W. WOOD SCHOLARSHIP.** A half-tuition scholarship is awarded annually to a student of high scholastic ability and financial need.

**RICHARD H. ROYER SCHOLARSHIP** is awarded annually to a student who has demonstrated outstanding ability in his studies and in student activities.

### COLLEGE AND COMMUNITY ORGANIZATIONS

**WILLITS COLEMAN MEMORIAL SCHOLARSHIP** has been established in memory of Willits Coleman, a member of the Wilkes-Barre Rotary Club. The scholarship will be awarded to a senior who has demonstrated ability in the classroom and in student activities.

**POLISH ROOM COMMITTEE SCHOLARSHIP** was created to express appreciation of services rendered to Wilkes College and the Community of Northeastern Pennsylvania by Dr. and Mrs. Joseph J. Kocyan. It is awarded annually to a student of Polish extraction who has graduated in the upper fifth of his high school class and tested above 600 on each part of his College Board Examination. The Director of Financial Aid, the Director of Admissions and a member of the scholarship committee shall select a qualified student and award the scholarship.

**GREATER WILKES-BARRE JUNIOR CHAMBER OF COMMERCE** awards a partial scholarship to a deserving student who without financial assistance could not attend college.

**LETTERWOMEN'S CLUB** annually awards a partial scholarship to a woman athlete selected by the organization.



**NEIL DADURKA MEMORIAL SCHOLARSHIP** is awarded annually by the Wilkes College Lettermen's Club. The money for this scholarship is earned and donated by the Wilkes College Lettermen's Club. The scholarship itself is named in honor of Neil Dadurka, a former Wilkes athlete who was killed while flying for the United States Marine Corps.

This half-tuition scholarship is given to an incoming freshman who is in need of financial aid and who is an outstanding athlete. The scholarship is given to enable an athlete to participate in the sport for which the scholarship is awarded.

**ROBERT J. McBRIDE MEMORIAL SCHOLARSHIP** is awarded annually to an incoming freshman. The award was established to honor the memory of Robert J. McBride, an athlete at Wilkes College. Initial funding of the scholarship came from donations received at the time of his death.

This half-tuition scholarship is awarded to a football player from the Greater Wyoming Valley Area as selected by the football coaches and the athletic director of the College.

**THETA DELTA RHO**, the all-college women's service organization, offers a scholarship yearly to a woman student achieving a high score in a competitive examination conducted by the College.

**WILKES COLLEGE FACULTY WOMEN'S CLUB SCHOLARSHIP** is given in memory of Eleanor Coates Farley and awarded annually to a female student in need of financial support.

### **COMMERCIAL AND INDUSTRIAL CONCERNS**

**ARNOLD FOUNDATION.** Arnold Biscontini, president, provides scholarship assistance to students who demonstrate need and academic achievement.

**FRANK E. BALDWIN, INC. SCHOLARSHIP.** A half-tuition scholarship is awarded annually to a student maintaining high academic standing and in need of financial assistance.

**CONSOLIDATED CIGAR CORPORATION.** This scholarship is awarded annually to students demonstrating scholarship and financial need.

**FRANKLIN FEDERAL SAVINGS AND LOAN ASSOCIATION OF WILKES-BARRE** awards a one-half tuition scholarship to a student of high scholastic achievement who is active in campus and community activities.

**MEDICO INDUSTRIES** awards a partial tuition scholarship to a deserving student of high scholastic standing.

**NELSON OF KINGSTON, INC.** awards a one-half tuition scholarship to a student of high scholastic standing.

**ADRIAN AND RICHARD PEARSALL OF CRAFT ASSOCIATES, INC.** have created a half-tuition scholarship which will be awarded to a high school graduate who has demonstrated leadership in his scholastic and extracurricular activities and who, without scholarship aid, would be unable to attend college.

**LAVENTHOL & HORWATH SCHOLARSHIP.** This award is presented annually to a senior accounting major by the firm of Laven-  
thol & Horwath in recognition of high academic endeavor.

**PENNSYLVANIA MILLER'S MUTUAL INSURANCE COMPANY** awards a partial tuition scholarship to a student who has demonstrated outstanding ability in his studies and in student activities.

**A. RIFKIN AND COMPANY** awards a partial tuition scholarship to a worthy young man or woman of outstanding scholastic ability.

### **EMPLOYEE'S FAMILY SCHOLARSHIPS**

**THE LESLIE FAY SCHOLARSHIP** is granted each year to the son or daughter of an employee of the Company whose record in high school and on the admissions tests has been outstanding.

A recipient of the scholarship will be selected on a competitive basis by the Scholarship Committee of Wilkes College. The scholarship will be retained by the student for the four years in College, provided his achievement and influence at the College are deemed outstanding by the faculty.

**THE METROPOLITAN WIRE GOODS CORPORATION** has created scholarships of \$500, \$300 or \$200 at Wilkes College for the sons or daughters of its employees. To qualify for candidacy, a student must graduate in the upper half of his secondary school class, must test above 1100 on the College Board Examinations, and must demonstrate financial need.

The scholarship will be granted through the College to the applicant making the best record in high school and on the College Board Examinations. To retain this scholarship, a student must make a strong academic record and must exert a constructive influence in the College.



## SPECIAL ENDOWMENTS

THE W. S. CARPENTER MEMORIAL AWARD FUND was established in 1965 by W. S. Carpenter, Jr. and his sons in memory of W. S. Carpenter, who was born in Wilkes-Barre on April 5, 1853, and lived in this community during his entire active business life. The fund was given to strengthen the work of the science division by subsidizing research projects, assisting the College in attaining able teachers, providing scholarships for outstanding students, providing lectures by speakers of national prominence, purchasing exceptional tools, apparatus, or other equipment for use in the science departments.

THE ALLAN HAMILTON DICKSON CHAIR OF ENGLISH LITERATURE was created by Dorothy Dickson Darte in memory of her father, Allan Hamilton Dickson, to encourage enlightened teaching, extended scholarships, and creative writing in the field of literature.

GILBERT S. McCLINTOCK was the chairman of the Junior College Committee of Bucknell University when Bucknell University in 1933 established the Junior College in Wilkes-Barre. As the first chairman of the Board of Trustees of Wilkes College, Attorney McClintock left his entire estate to Wilkes College with the understanding that the income shall be used to improve faculty salaries.

## AWARDS

At the end of the academic year a number of awards are presented to outstanding students in selected fields. These awards are presented either at Commencement or at a Special Awards luncheon held for the recipients.

### Commencement Awards

THE DEAN'S SCHOLARSHIP AWARDS are granted to the man and woman in the graduating class who have excelled in scholarship throughout their four years at the College.

THE HUMANITIES AWARD is given each year in memory of Miss Annette Evans to the man or woman in the graduating class who has demonstrated outstanding scholarship in the humanities.

THE NATURAL SCIENCE AND MATHEMATICS AWARD is given annually in recognition of scholarship within the Division of Natural Sciences and Mathematics.

THE SOCIAL SCIENCE AWARD is given each year in memory of Hugo V. Mailey to the man or woman in the graduating class who has demonstrated outstanding scholarship in the social sciences, and has manifested intellectual curiosity and creative imagination.

ALUMNI AWARD FOR LEADERSHIP is given by the Wilkes College Alumni Association to the graduate considered by a special committee to have made the strongest contribution to the life of the College.

THE INTERNATIONAL STUDENT AWARD, established in 1972 in memory of Nada Vujica, is given annually to a deserving international student in the graduating class.

## All-College Awards

THE BEACON ATHLETES OF THE YEAR AWARDS are presented annually to the athletes considered by the Beacon staff as being the most outstanding in athletics during the year.

THE BIOLOGY RESEARCH AWARD is presented annually to the graduating senior who has demonstrated exceptional ability in a research project.

THE BIOLOGY DEPARTMENT SCHOLAR AWARD is presented annually to the graduating senior with the highest academic average.

THE BIOLOGICAL SOCIETY SOPHOMORE AWARD is presented annually to the sophomore major with the highest academic average.

BLOOD DONOR AWARDS are presented annually to the women's dormitory, men's dormitory, and club with the highest percentage of participating students.

THE BRANDWENE AWARD in Philosophy has been created by the family and friends of Mr. and Mrs. M. D. Brandwene. The award is given annually to a student who has demonstrated scholarly achievement in the Department of Philosophy. The student is selected by the faculty of the aforementioned department, and the award is presented at the annual Awards Day Luncheon.

THE PROFESSOR CATHERINE H. BONE AWARD is presented by the Chemistry Department to a graduating senior for academic excellence and chemistry proficiency.

THE PROFESSOR ALFRED W. BASTRESS AWARD is presented by the Chemistry Department to a graduating senior for proficiency in chemical research.

THE CHEMISTRY FRESHMAN AWARD is presented annually to the freshman major with the highest scholastic average.



THE COPERNICUS AWARD is presented annually to the student considered most outstanding in astronomy or a closely related field. This award is presented by the Polish Union in observance of the 500th anniversary of the Polish astronomer, Nicholas Copernicus.

THE W. F. DOBSON AWARD IN ACCOUNTING is presented annually to the graduate who has made the most outstanding record in accounting during his four years at the College.

THE J. J. EBERS MEMORIAL AWARD is presented by the Institute of Electric and Electronic Engineers to the electrical engineering senior who, in the opinion of the Engineering Department, has demonstrated outstanding scholastic ability, professional interest and leadership in the I.E.E.E. Student Branch at Wilkes.

THE ELECTRICAL ENGINEERING ACHIEVEMENT AWARD is presented by the faculty of the Engineering Department to the graduate who has demonstrated exceptional ability and maintained the highest scholastic average in the field of electrical engineering.

THE ENGINEERING AWARD is presented annually to the graduate of the Engineering Department who has maintained the highest scholastic average throughout his or her college career.

THE ENGLISH AWARD is given annually in honor of Frank J. J. Davies, former chairperson of the Department of English, to an outstanding English major.

THE ENVIRONMENTAL SCIENCES ACADEMIC ACHIEVEMENT AWARD is given annually by the department faculty to an outstanding environmental sciences graduating senior.

THE INTER-DORMITORY COUNCIL'S OUTSTANDING DORMITORY STUDENT AWARDS are presented annually to the female and male dormitory students who have contributed most to dormitory life.

THE JOHN F. KENNEDY MEMORIAL AWARD is presented annually to the student who has indicated outstanding achievement in the social sciences.

THE LETTERWOMEN'S SCHOLARSHIP AWARD is presented annually to the woman who has been most outstanding in women's athletics.

THE MATERIALS ENGINEERING ACHIEVEMENT AWARD is presented by the faculty of the Engineering Department to the grad-

uate who has demonstrated exceptional ability and maintained the highest scholastic average in the field of materials engineering.

THE MATHEMATICS AWARD is presented annually to the senior who, in the opinion of the mathematics faculty, has done the most outstanding work in the fulfillment of the major requirements in mathematics.

DEPARTMENT OF NURSING AWARDS are presented annually to two students in nursing who have the 1) highest academic achievement during his/her four years at the College; and 2) most outstanding scholastic average in nursing.

POLITICAL SCIENCE AWARD is presented annually to the senior political science major who has demonstrated proficiency in the social sciences and who has contributed significant services to the College and community.

THE PENNSYLVANIA INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS AWARD is presented annually to a graduating senior who has received high grades in accounting and demonstrated qualities of leadership in other activities.

THE PHILOSOPHY DEPARTMENT AWARD is presented annually in memory of Stanko M. Vujica to the student beginning the study of philosophy who shows the greatest promise in and potential for continued achievement in philosophy.

THE PHYSICS AWARD is presented annually to the graduate of the department who has maintained throughout his or her college career the highest average in physics courses.

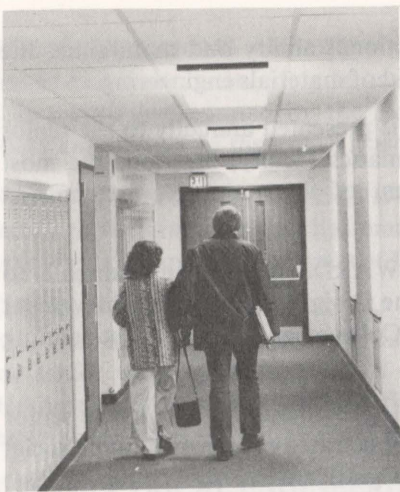
THE WILKES COLLEGE CLUB OF THE SIGMA XI annually recognizes those seniors who have demonstrated research excellence. Notation of this award is made in the Commencement Program.

THE WILKES COLLEGE THEATER AWARD is presented annually to the senior who has contributed significantly to the development of the theater.

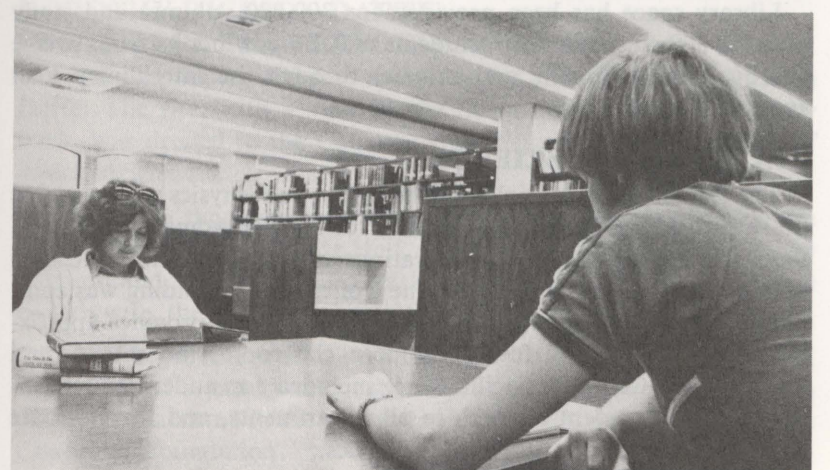


## The Facilities of the College

### Buildings and Plant



THE MATERIALS ENGINEERING ACHIEVEMENT AWARD is presented by the faculty of the Engineering Department to the grad-





## Buildings and Plant

The College is constantly seeking to implement and improve its facilities for instruction. A growing campus provides added classrooms, modern laboratories, and research facilities.

### EUGENE SHEDDEN FARLEY LIBRARY

The library, completed in the summer of 1968, has been named by the Trustees in honor of Dr. Eugene Shedden Farley, first president of Wilkes College.

From 1947 to 1968 Kirby Hall, the former residence of Mr. and Mrs. Fred Morgan Kirby, was used as the College library. The building, first named the Kirby Home for Education, was presented to the College in 1941 as a gift of Allan Kirby, son of Wilkes-Barre's most generous benefactors. It is occupied presently by the English Department and the Foreign Languages and Literatures Department. The language laboratory (initiated by a gift of the graduating class of 1962), the Debate Union and the Manuscript Society are also located there.

The Eugene Shedden Farley Library occupies the northwest corner of West South and South Franklin Streets. The four floors contain student study carrels; faculty research offices; media and microforms; special collection rooms. One room is devoted to Polish art treasures and exhibits of craftsmanship furnished by the Women's Committee for the Polish Room at Wilkes College; another contains books and papers from the estate of Attorney Gilbert McClintock; another holds memorabilia presented by Admiral Harold Stark; and there is a room dedicated in memory of Eleanor Coates Farley.

Library space has been provided for 300,000 volumes and study area for 500 students. Also, students may borrow books from twelve nearby libraries (public and private) through the interlibrary loan system.

### STARK HALL OF SCIENCE

The Departments of Biology, Chemistry, and Physics are housed in Stark Hall of Science, named in honor of the late Admiral Harold R. Stark, former Chief of Naval Operations and former Honorary Chairman of the Board of Trustees of the College. This building was completed in 1958 and enlarged in 1963, so that it now provides approximately 85,000 square feet of modern classroom, laboratory, and office space. Complete facilities are included for undergraduate instruction and student research in all departments, and for graduate study in biology, chemistry, and in physics.

In addition to the usual instructional facilities, faculty, graduate students, and selected undergraduate students conduct research programs, many with industrial or governmental financial support.

Outside sponsors of recent research programs included the National Science Foundation, the Pennsylvania Heart Association, the National Institutes of Health, the United States Air Force, the Petroleum Research Fund of the American Chemical Society, and numerous private industries and individuals.

### STARK LEARNING CENTER

A new \$7,000,000 Stark Learning Center connects with the Hall of Science. This facility provides classrooms, laboratory space, staff offices and studios for the programs in electrical and materials engineering, environmental sciences, art, mathematics-computer science, nursing and psychology.

Also located in the Learning Center is the Computer Center. The facilities and services of the Computer are available to students and faculty who are involved in computer programming, research, and large-scale problem-solving.

### SORDONI ART GALLERY

The Sordoni Art Gallery, given to Wilkes College by The Andrew J. Sordoni Foundation, Inc., to encourage the appreciation of art, is located in the Stark Learning Center on South River Street. The main purpose of this professionally equipped gallery is to present art exhibitions of a professional caliber to enrich the lives of both the Wilkes College community and the people of Northeastern Pennsylvania.

### DOROTHY DICKSON DARTE CENTER FOR THE PERFORMING ARTS

A fully equipped, 500-seat theater is the gift of Dorothy Dickson Darte. The site, with a view of the Susquehanna River and Kirby Park, was deeded to the College by the Wyoming Valley Society of Arts and Sciences.

Until 1965, theatrical activity was in Chase Theater, formerly the carriage house behind Chase Hall, presented to the College in 1937 by Admiral and Mrs. Harold R. Stark, as a memorial to Fred M. Chase and his wife, the sister of Admiral Stark.

The College, in cooperation with the Wilkes-Barre Kiwanis Club, has presented a variety of theatrical productions, the proceeds from which have assisted in the establishment of the Wilkes-Barre Kiwanis Charitable Foundation.



### **DOROTHY DICKSON DARTE MUSIC HALL**

Faculty offices, studios, practice, and rehearsal rooms are located in a new music center opened in the summer of 1969. This facility is integrated with the Center for the Performing Arts, completed in the fall of 1965.

### **CONYNGHAM GALLERY**

The art club holds its annual Art Fair in the Conyngham Gallery, where the works of students and of local and professional artists are shown. The public is invited to the displays and exhibits.

### **GYMNASIUM AND OUTDOOR ATHLETIC PLANT**

Completed in September of 1950, the Gymnasium is well equipped for intramural and intercollegiate athletic events. It has a seating capacity of 2400. Recently, the College added modern training room facilities off campus adjacent to Kirby Park. Here also are located Ralston Field, named in honor of Wilkes' first athletic coach and present Dean of Student Affairs, and the playing fields for soccer, baseball, and hockey, as well as asphalt tennis courts and an archery range. All students are invited by the Jewish Community Center, on South River Street, and the YM-YWCA, on South Franklin Street, to use their swimming pools and bowling alleys. During the 1973 football season the Robert J. McBride Field House was dedicated at Ralston Field.

### **GUIDANCE CENTER**

The College maintains a testing center to assist the deans in their counseling of students. The College Testing Service is available at no charge to all Wilkes students and, for a fee, to members of the community. The testing center also provides assistance to the State Bureau of Rehabilitation and other agencies. The Guidance Center, on South River Street, was the law offices of the late Gilbert S. McClintock, the first Chairman of the Board of Trustees.

### **CAREER PLANNING AND PLACEMENT OFFICE**

The Career Planning and Placement Office assists seniors in finding permanent employment in positions suitable to their talents and training. It also extends such assistance to any graduate of the College. The Office also assists students in securing part-time employment during the school year and during the summer.

To aid students in choosing an occupational goal, a Careers Library is available for browsing. The Library includes a large amount of occupational information, both printed and audio-visual, on a wide variety of careers, as well as self-directed materials for occupational

aptitude exploration, company literature, and graduate school information.

Comfortable quarters are provided for representatives from industry, school systems, and from graduate schools to interview and discuss with students opportunities available to them.

All students seeking employment are invited to register with the Career Planning and Placement Office.

Full credentials are on file so that prospective employers may be given adequate information regarding the student.

Credentials and recommendations from faculty members are submitted to the office upon the request of either the student or the Career Planning and Placement Office.

The Career Planning and Placement Office is located in the Guidance Center, on South River Street, next to McClintock Hall. The Careers Library is located in the building behind the Guidance Center on South River Street.

### **THE BOOKSTORE**

Books, stationery, and supplies may be purchased at the College Bookstore in the lower level of Pickering Hall. The bookstore is operated on a cash basis. (The cost of books and supplies will vary with the course of study, but will average approximately \$75 to \$100 per semester.)

### **THE COMMONS**

The Commons, facing South Street, provides cafeteria service for commuting students and includes a lounge and recreation area.

### **SNACK BAR**

Cafeteria service is also provided at the College Snack Bar, behind Parrish Hall.

### **OFFICES OF ADMISSION — ADMINISTRATION**

Chase Hall, 184 South River Street, the first building on the campus, was donated in 1937 by Admiral and Mrs. Harold R. Stark. On the first floor are the Dean of Admissions and the Director of Financial Aid.

Weckesser Hall, 170 South Franklin Street, is the gift of Mr. and Mrs. Frederick J. Weckesser. The President and Dean of Academic Affairs have their offices in Weckesser Hall. Also in Weckesser Hall are the Deans of Men, the Deans of Women, the Director of Athletics,



the Registrar, the Director of the Division of Continuing Education and Graduate Studies, the Alumni Office, the Public Relations Office, the Office of College Development.

Parrish Hall, formerly the Glen Alden Building of the Lehigh and Wilkes-Barre Coal Company, was acquired in 1958. Presently, the Finance Office and Business Office occupy the first floor. Pickering Hall, constructed in 1965, is the location of the Housing Office.



## The Academic Program

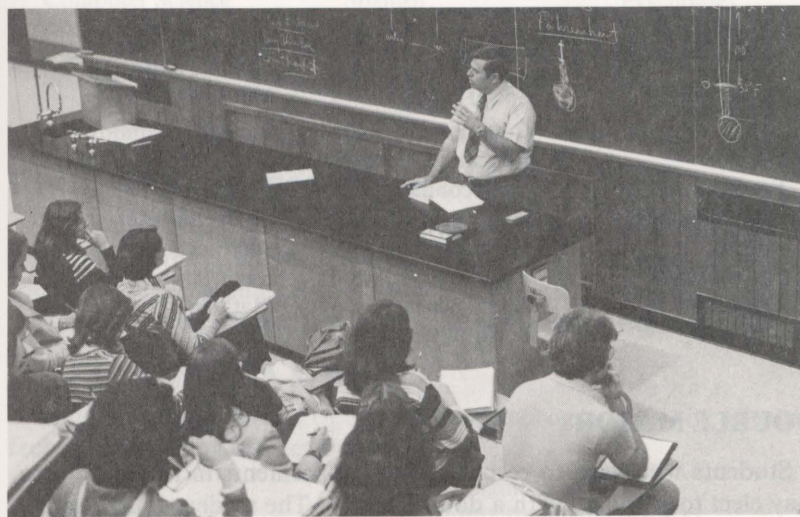
### Undergraduate Programs

### Degree Requirements

### Graduation Requirements

### Academic Majors and

### Course Descriptions





## Undergraduate Programs

The program at Wilkes has been carefully designed so that students may meet the entrance requirements of graduate and professional schools. Students planning to go to graduate school should consult as early as possible with their department chairperson.

In its degree programs Wilkes College provides for a broad liberal education and for the concentration in special areas for which students are qualified and have interest. In the Bachelor of Arts and Bachelor of Science degree programs the faculty encourages students to achieve intellectual, social, and spiritual development.

## Areas of Study

Mankind's knowledge has tended to be identified in three major areas or divisions of study. These areas and the departments identified with them are listed below. Students will be required to take a general program of courses distributed in these three areas to provide a sound liberal orientation in the varying fields of human knowledge. Academic degrees will sometimes require a specific set of these courses to meet degree requirements. Individual departments will identify these requirements when students register.

### AREAS

Humanities	Social Sciences	Sciences and Mathematics
Art	Commerce & Finance	Biology
English	Education (Elementary & Secondary)	Chemistry
Foreign Languages & Literatures	History	Computer Science
Music	Political Science	Environmental Sciences
Philosophy	Psychology	Engineering
Theatre Arts	Social Science	Mathematics
	Sociology	Nursing
		Physics

### DOUBLE MAJOR

Students who wish to complete the requirements in two programs may elect to graduate with a double major. The student must declare intent to graduate with a double major by completing the appropriate form available at the Registrar's Office. It is the student's responsibility to seek the approval of the chairpersons of both departments to ensure that all requirements of the two majors are fulfilled.

## Degree Requirements

### Bachelor of Arts Degree

Programs leading to the Bachelor of Arts degree are primarily concerned with the cultivation of an understanding of our civilization and of the people who have created it and lived in it. Studies center around cultures and events, thoughts and institutions, art and science. Programs are designed to create breadth and perspective as opposed to more specialized skills.

A liberal arts program must acquaint the student with the nature and extent of knowledge in all the principal fields. The student will carry on explorations in the humanities, social sciences, and sciences.

### SELECTION OF A MAJOR

To provide depth of knowledge, some concentration is required. It is essential that the major field of concentration be elected before the beginning of the junior year.

Majors in the Bachelor of Arts degree program may be selected from the following subject areas:

Art	Foreign Languages:	Philosophy
Biology	French	Physics
Chemistry	German	Political Science
Computer Science	Spanish	Psychology
Economics	History	Social Science/
Elementary Education	Individualized Studies	Urban Affairs
English	International Relations	Sociology -
Theater Arts	Mathematics	Anthropology
Environmental Sciences	Music	

### Bachelor of Science Degree

The Bachelor of Science degree programs require more concentration within a restricted area of human thought and activity. Although these programs emphasize knowledge and skill in special fields, a basic program of general education is coupled with this specialized effort.

### SELECTION OF A MAJOR

Majors in the Bachelor of Science degree program may be selected from the following subject areas:

Biology	Engineering
Chemistry	Environmental Sciences
Commerce and Finance	Mathematics
(a) Accounting	Medical Technology
(b) Business Administration	Music Education
(c) Business Education	Nursing
Computer Science	Physics



## Academic Requirements

### GRADES

The primary purpose of any marking system is to inform the student of his achievement. Marks also aid in evaluating students for the purpose of recommendation. Grade reports are sent to students at the end of each term. Mid-term reports are sent if the work is unsatisfactory.

Five numerical grades are given for academic work.

Grade	Interpretation
4.....	Academic achievement of outstanding quality.
3.....	Academic achievement of high quality.
2.....	Academic achievement of acceptable quality in meeting requirements for graduation.
1.....	Academic achievement of quality below the average required for graduation.
0.....	Academic achievement below the minimum required for course credit.
P.....	Passing, no credit.
W.....	Withdrawal.
N.....	Audit (No credit).

"X," "Inc.," means that the student received an incomplete grade. Incompletes will be granted to students who, because of illness or reasons beyond their control, have been unable to satisfy all course requirements including the final examination. When such a grade is given, the incomplete work must be made up by or before the end of the fourth week following the last day of the examination period. If the incomplete is not removed within this time, or an extension of time granted by the instructor who gave the grade or by some other authorized person, and the Registrar's Office so notified, the grade will be changed to a zero on the student's record.

### COURSE CREDITS

Each course at the College is assigned a specific number of credits. For example, English 101 is a 3-credit course and Chemistry 201 is a 4-credit course. Usually, credits assigned to the course are determined by the number of hours that the class meets per week.

Below is an example illustrating the method used to compute point averages.

Course	Credit Hrs. Carried	Grade	Points	Credit Hrs. Passed
Bio. 101 .....	3	4	12	3
Eng. 101.....	3	0	0	0
Fr. 101 .....	3	2	6	3
Hist. 101.....	3	1	3	3
Mus. 101 .....	3	3	9	3
Total credit hours carried .....	15			
Total credit hours passed .....				12
Total points earned.....			30	
Average $30 \div 15 = 2.0$				

Notice that the student has accumulated 12 credits toward graduation. The zero grade in English means that the student must repeat that course.

Averages are cumulative; the work of each semester will be added to the total. To graduate a student must have at the end of the senior year at least a 1.85 average for all courses and a 2.0 average in the major field.

Transfer credits are not included in the calculation of grade averages.

### CLASS STANDING

Grades and averages at the end of each semester of the four academic years indicate a student's progress. Unless the following minimum averages are met, a student's record is automatically reviewed by the Academic Standing Committee.

	General Average	Major Average
Freshman Year .....	1.40	1.60
Sophomore Year.....	1.70	1.90
Junior Year .....	1.85	2.0

If these minimum averages are not attained during each semester of the year indicated, the Academic Standing Committee will review the student's record and take action resulting in his being placed on probation or dismissed from the College.

### PROBATION AND DISMISSAL

A student placed on probation must attain the required grade average in the next semester or be subject to dismissal from the College.



Unless special permission is granted by the Academic Standing Committee, a student dropped for academic failure will not be considered for readmission until one year after being dropped.

If readmitted the student will still be on probation and shall be given one semester in which to prove his ability to continue in college.

### ATTENDANCE

Attendance at all classes is expected. Repeated absence is deemed a sufficient cause for failure.

After five consecutive absences from a class, a student may be readmitted to the class only by action of the appropriate dean and the department chairperson concerned.

### STUDENT LOAD

No students shall be allowed to carry an overload without the approval of the advisor and the appropriate dean. An overload will be permitted only for students with an average grade record of 3 or special need.

### WITHDRAWALS

A student may drop any course through the tenth week of the semester. A mark of "W" will be recorded if the student has properly notified the instructor, his faculty advisor, and the appropriate dean.

A student who withdraws from a course after the tenth week of classes but who continues other courses will receive a zero unless the appropriate dean, faculty advisor, and instructor agree that the student be permitted to drop the course without prejudice, in which case a "W" will be recorded. Seven-week modular courses may be dropped through the sixth week of classes by following the same procedure.

No student who has been advised to withdraw from the College's day school for academic reasons will be permitted to register in the Evening Division without the approval of the Academic Standing Committee and then will be allowed to register only as a non-matriculated student.

Students who withdraw from the College or drop courses should give prompt written or verbal notice to the appropriate dean or the Director of the Evening Division and to the instructor concerned, in order that their records may not unjustly show failure in courses.

### CHANGE OF MAJOR

Students who wish to transfer from one department to another shall obtain the approval of the advisor and the department chairperson. The student shall satisfy the curriculum requirements of the bulletin in

force at the time of transfer. Change-of-major forms are available in the Registrar's Office.

### TRANSFER OF SUMMER CREDITS

Students desiring to study at another college during the summer must petition the deans for approval. The student must earn a grade of 2 or higher in order for the work to be credited toward graduation. In some cases it may be necessary for a student to take examinations before credit is granted.

Transfer credits are not included in the calculation of grade point averages.

### DEAN'S LIST

The faculty gives recognition for high quality work. Candidates for the Dean's List, published at the end of each term, must obtain a point average of 3.25 or higher for all courses taken. Students taking less than twelve credit hours will not be eligible for the Dean's List.

### HONORS

The granting of honors at Commencement is based upon the entire academic record achieved by students in their work at Wilkes College, such work to total at least 60 credits earned. The record of transfer students previous to their entrance at Wilkes must have been of **cum laude** quality to be eligible for consideration. Transfer students with fewer than 60 credits will be considered only when, for exceptional reasons, the chairperson of the department of the student's major recommends that this be done.

Requirements for Honors are:

<b>Summa Cum Laude</b>	3.80
<b>Magna Cum Laude</b>	3.50
<b>Cum Laude</b>	3.25

### GRADUATION REQUIREMENTS

All candidates for degrees and certificates are expected to be present at Commencement. If circumstances prevent their attendance, students must apply to the Dean of Student Affairs for permission to take the degree or certificate *in absentia*.

The faculty has approved the following requirements which students must satisfy in order to be eligible for graduation:

1. They must complete all subjects required for the degree as stated in the Bulletin in force at the time of admission to the program. All students must complete the last 30 credits in residence at the College.



3. They must obtain a minimum cumulative average of 1.85 for all courses.
4. They must obtain a minimum cumulative average of 2.0 for all subjects within his major.
5. They must satisfy all requirements pertaining to the physical education program.
6. They must demonstrate competence in written and spoken English.

No student shall be graduated until all financial obligations to the College have been satisfied.

### B.A. AND B.S. DEGREE PROGRAM REQUIREMENTS

The following pages describe specific courses and requirements for each degree major. The student is responsible for meeting the requirements of his or her major program.

A candidate for graduation during his senior year should report during the first week in January to the Office of the Registrar to submit an order for a diploma, review requirements for a degree, and complete other necessary forms required of candidates for degrees.

### SECOND DEGREE

Students who hold a degree from this or another accredited institution may be awarded a second baccalaureate degree in certain circumstances. One of the degrees must have a major in Commerce and Finance, Engineering, Music Education or Nursing. Candidates for a second degree must earn at least thirty credits beyond those completed for the first degree; these thirty credits must be earned at Wilkes College.

### GENERAL CORE REQUIREMENTS

The General Core Requirements consist of a broad spectrum of courses in the liberal arts and sciences. These courses, which are central in a liberal arts education, are required of all Wilkes College students in both the B.A. and B.S. programs except the B.S. programs in Engineering, Medical Technology, Music Education, Nursing, and Physics.

The General Core Requirements for all programs in the Bulletin are listed as "core elective" except English 101-102 and Physical Education 100, 105-106, which are specifically designated.

Required Courses	Credit Hours
English 101-102	6
Physical Education 105-106	2
Physical Education 100	0
Art 101 or Music 101 or Theater Arts 101	3

### Distribution Areas

#### Humanities

Any three of the following four six-hour sequences:	18
English 151-152	
History 101-102	
Philosophy 101 or Philosophy 201, and one additional course in Philosophy	
Foreign Languages 101-102 or 203-204 or at the competence level of the student.	

#### Science/Mathematics

Any two of the following five departmental sequences:	12-16
Biology 101-102 or other courses with permission of Biology Department.	
Chemistry 101-102, 105-230, 201-202 or other courses with permission of Chemistry Department.	
Environmental Sciences 101-102 or other courses with permission of Environmental Sciences Department.	
Mathematics and Computer Science — any two courses in mathematics or computer science with the exception that Mathematics 100 must be followed by Mathematics 105 or Mathematics 111.	
Physics 101-102, 105-106, 201-202 or other courses with permission of Physics Department.	

#### Social Sciences

Any two of the following four departmental sequences:	12
Psychology — Psychology 101-102 or other courses with permission of Psychology Department.	
Commerce and Finance — Economics 101-102, 227-228, and other courses with permission of the Commerce and Finance Department.	
Political Science 101-102 or other courses with permission of Political Science Department.	
Sociology/Anthropology — Anthropology 101 (an upper level anthropology course may be substituted by permission of the department) and Sociology 101 (an upper level sociology course may be substituted by permission of the department). Sociology 101 may be taken prior to Anthropology 101.	

Total 53-57



Individual exceptions to the foregoing core must be approved by the academic Standing Committee after consultation with the departments involved, the student, and the student's advisor.

## Course Requirements in the Majors

### Art

Associate Professor Sterling, chairperson; Professor Colson; Associate Professors D'Vorzon, Fuller; Assistant Professors Casilli, Simon; Adjunct Professors Cohen, Richards.

Students who major in **Art** are required to complete the following program of studies in addition to the general requirements for the B.A. degree.

Students who desire certification for teaching Art in the public elementary and secondary schools must elect **Psychology 101-102 (normally in the sophomore year), Education 201-202 (normally in the junior year), and the professional semester in Art Education (senior year).**

FIRST SEMESTER		SECOND SEMESTER	
Art 201	3	Art 202	3
Eng. 101	3	Art 208	3
Core electives	9	Eng. 102	3
P.E. 100	0	Core electives	9
P.E. 105	1-2	P.E. 100	0
	16-17		18
THIRD SEMESTER		FOURTH SEMESTER	
Art 203	3	Art 204	3
Art 223	3	Art 224	3
Core electives	6	Art 232	3
Elective	3	Core electives	6
P.E. 100	0	P.E. 100	0
	15	P.E. 106	1
			16
FIFTH SEMESTER		SIXTH SEMESTER	
Art 206	3	Art 212	3
Art 210	3	Art 226	3
Core electives	6	Core electives	6
Elective	3	Elective	3
Optional elective	3	Optional elective	3
	15-18		12-18
SEVENTH SEMESTER		EIGHTH SEMESTER	
Art 231	2	Electives	15-18
Art 311	2		
Art 213	3		
Electives	8-11		
	15-18		15-18

#### ART 101. EXPERIENCING ART I

Three credits

Lectures and discussion on the elements of art and the forerunners of modern and contemporary art. Two and three dimensional studio work is explored through the creative process in a variety of media.

No prerequisite.

#### ART 102. EXPERIENCING ART II

Three credits

A continuation of Art 101.

Prerequisite: Art 101.

#### ART 201. FUNDAMENTALS OF COLOR AND DESIGN I

Three credits

A fundamentals course for all art majors involving the basic elements of design and the study of color systems including their physical, psychological, and sociological properties.

No prerequisite.

#### ART 202. DRAWING AND COMPOSITION

Three credits

An introductory course exploring the organization and potential of line, space, and texture through a variety of media and subject matter, including still life and figure drawing.

No prerequisite.

#### ART 203. PAINTING I

Three credits

An introduction to painting methods, techniques, and materials. Emphasis on the organization of composition and painting techniques.

Prerequisite: Art 202 and 208, or permission of instructor.

#### ART 204. WATER COLOR PAINTING

Three credits

An exploration into painting methods of transparent and opaque paints involving still life, landscape, and a wide range of other subject matter.

Prerequisite: Art 202 and 208, or permission of instructor.

#### ART 205. ADVANCED PAINTING

Three credits

Increased emphasis on development of style and experimentation in contemporary art methods and techniques.

Prerequisite: Art 204.

#### ART 206. PRINT MAKING

Three credits

An introduction of relief, intaglio, and planographic techniques including block printing, etching, lithography, and silk screen.

Prerequisite: Art 202 and 208, or permission of instructor.

#### ART 207. ADVANCED PRINT MAKING

Three credits

Individual experimentation using plastics, photographic techniques in silk screen, lithography, and intaglio, as well as traditional methods.

Prerequisite: Art 206.

#### ART 208. FUNDAMENTALS OF COLOR AND DESIGN II

Three credits

A continuation of Fundamentals of Color and Design I with a concentration on the similarities and differences between two and three dimensional design.

Prerequisite: Art 202.

#### ART 210. MODELING AND THREE DIMENSIONAL CONSTRUCTION (SCULPTURE I)

Three credits

An introductory course into the basic concepts of three dimensional form and space. Modeling in clay from life; casting and direct building techniques in plaster; basic carving experiences in stone and wood.

No prerequisite.



**ART 211. SCULPTURE II** **Three credits**  
An exploration into metal sculpture employing gas and electric welding processes; plastics. Advanced work in carving, construction, and assemblage in various media.

Prerequisite: Art 210, or permission of instructor.

**ART 212. CERAMICS** **Three credits**  
Exploration into the basic methods and techniques of hand building and wheel work. Experimentation in surfaces decoration, glazing, and kiln firing.  
No prerequisite.

**ART 213. METALWORK AND JEWELRY** **Three credits**  
A course in basic metalwork, enameling and jewelry techniques and design. Lecture, two hours; studio, two hours.  
Prerequisite: Art 202 and 208, or permission of instructor.

**ART 214. PHOTOGRAPHY I** **Three credits**  
An introduction to the fundamentals of photography; camera usage, subject consideration, lighting, darkroom techniques, and the preparing of photographs for exhibit.  
No prerequisite.

**ART 223. HISTORY OF ART I** **Three credits**  
A survey of the history of architecture, sculpture and painting from the pre-historic period through the Gothic era.  
No prerequisite.

**ART 224. HISTORY OF ART II** **Three credits**  
A survey of the history of architecture, sculpture and painting from the Renaissance through the nineteenth century.  
No prerequisite.

**ART 226. HISTORY OF MODERN ART** **Three credits**  
A survey of the development of architecture, sculpture and painting from the late nineteenth century to the present.  
No prerequisite.

**ART 231. CONTEMPORARY DESIGN** **Two credits**  
A study of contemporary design in advertising, graphics, industrial design, architecture and landscaping.  
Prerequisite: Art 202 and 208 or permission of instructor.

**ART 232. LIFE DRAWING** **Three credits**  
Provides advanced study and research for Art majors in the development of drawing skills using the live model.  
Prerequisite: Art 202 or permission of instructor.

**ART 240. ART IN THE ELEMENTARY SCHOOL CLASSROOM** **Three credits**  
An exploration of common situations in elementary education to discover the opportunities for creative work and the methods and materials by which they may be realized. An extension of personal experience with a variety of arts and crafts materials and processes used by children.

**ART 280. TOPICS IN ART** **One to three credits**  
Study of one or more special topics in the Visual Arts. May be repeated for credit.

**ART 311. SENIOR EXHIBIT** **Two credits**  
A study of exhibition and criticism techniques and the preparation of a portfolio and resume, climaxed by a showing of the student's work. Required of all art majors during the senior year.

**ART 395-396 INDEPENDENT RESEARCH** **One to three credits**  
Independent study and research for advanced students in the field of the major under the direction of a staff member. A research paper at a level significantly beyond a term paper is required.  
Prerequisite: Approval of department chairperson is required.

**ART 397. SEMINAR** **(Maximum of three credits per student) One to three credits**  
Preparations and discussions of selected topics.  
Prerequisite: Permission of department chairperson is required.

## Biology

Associate Professor Turoczi, chairperson; Professor Reif; Associate Professors Hayes, Houseknecht, Ogren; Assistant Professors Doty, Erickson, Rigley.

The biology program is a general program covering basic areas of biology. Specific pre-professional training is minimized in favor of the broadest possible background in the liberal arts as well as the biological sciences.

The B.A. curriculum offers flexibility so that it can be used by those students in secondary education who are preparing to teach and must include the professional semester of student teaching either in the seventh or eighth semester. In addition, this program provides the opportunity for students to double major and jointly satisfy the requirements of both the Department of Biology as well as those of the other department involved.

The B.S. curriculum meets all of the liberal arts requirements for the Bachelor of Arts degree. In addition, it provides a greater concentration of advanced biology courses. This program is recommended for those students planning to enter industry or continue with graduate study in biology.

For science majors, other than biology majors, the Department of Biology recognizes that individualized biology module selections may be more appropriate than a generalized module sequence, therefore such students are advised to consult with the Department of Biology.

FIRST SEMESTER			SECOND SEMESTER		
	B.A.	B.S.		B.A.	B.S.
Bio. 201-202	5	5	Bio. 203-204	5	5
Chem. 201	4	4	Chem. 202	4	4
Math. 105	4	4	Math. 106	4	4
Eng. 101	3	3	Eng. 102	3	3
P.E. 105	1	1	P.E. 106	1	1
P.E. 100	0	0	P.E. 100	0	0
	17	17		17	17



THIRD SEMESTER			FOURTH SEMESTER		
	B.A.	B.S.		B.A.	B.S.
Bio. 205-206	5	5	Bio. 207-208	5	5
Chem. 237	—	4	Chem. 230	4	—
Core Electives	9	9	Chem. 238	—	4
Elective	3	—	Math. 150	3	3
P.E. 100	0	0	Core Electives	6	6
			P.E. 100	0	0
	17	18		18	18
FIFTH SEMESTER			SIXTH SEMESTER		
	B.A.	B.S.		B.A.	B.S.
Bio. 397*	1	1	Bio. 397*	1	1
Bio. Elective	3	3	Bio. Elective	3	3
Chem. 221	—	4	Comp. Sci. 123	3	3
Physics 105	4	4	Physics 106	4	4
Core Elective	3	3	Core Elective	3	3
Elective	6	3	Elective	3	3
	16-17	17-18		16-17	16-17
SEVENTH SEMESTER			EIGHTH SEMESTER		
	B.A.	B.S.		B.A.	B.S.
Bio. Elective/Res.	—	6	Bio. Elective/Res.	—	6
Core Electives	6	6	Core Electives	6	6
Electives	9-12	3	Electives	3-6	3
	15-18	15		9-12	15

Note: A standardized examination is administered upon completion of the eight modules (201 through 208) at the end of the fourth semester to all majors in the Department of Biology.

Total credits required for a B.A. degree with major in Biology — 132

Total credits required for a B.S. degree with major in Biology — 134.

#### BIO. 101-102. BIOLOGICAL SCIENCE

Three credits each semester

Biological Science is a survey course intended for students who take no other course in biology. It presents the essential general information about plants and animals, explains fundamental laws governing the biological world, and emphasizes their relationship to man. Class, three hours a week.

#### BIO. 113. MICROBIOLOGY

Four credits

This course presents the basic principles of bacteriology and the relationship of micro-organisms to disease and its prevention, control and treatment. It considers the effects of microbes within the body and the body's reaction to them. Lecture, three hours a week; laboratory, three hours a week. Fee: \$20.

#### BIO. 115-116. HUMAN ANATOMY AND PHYSIOLOGY

Four credits each semester

This course provides a general study of the human body, its structure and normal function. It provides an appreciation of the complex nature of the human body with relation to the promotion of a healthy organism. Lecture, three hours a week; laboratory, three hours a week. Fee: \$20 each course.

\* Only one semester of Bio. 397 is required but it must be taken in either the fifth or sixth semester.

#### BIO. 201M. PRINCIPLES OF MODERN BIOLOGY

Two and one-half credits

This course provides an introduction to the basic physical and biochemical properties of life, and a survey of representative plant and animal types. Fee: \$15.

#### BIO. 202M. CHORDATE ANATOMY

Two and one-half credits

This course is a study of the principle organ systems of representative chordates. Evolution and taxonomy of the phylum Chordata are emphasized. Fee: \$15.

#### BIO. 203M. EMBRYOLOGY

Two and one-half credits

Embryology is the study of the early development of animals. Growth is traced from the egg to later stages in the life of the frog, chick, and man. Fee: \$15.

#### BIO. 204M. HISTOLOGY

Two and one-half credits

Histology is the study of tissues and the arrangement of tissues to form organs and organ systems. The material included in this course is restricted to vertebrate structures. Fee: \$15.

#### BIO. 205M. GENETICS

Two and one-half credits

Genetics is the study of the inheritance of normal characters and the variation of these characters in plants and animals. Fee: \$15.

#### BIO. 205M. GENERAL PHYSIOLOGY

Two and one-half credits

Physiology is the study of the physical and chemical activities of all living organisms. Fee: \$15.

#### BIO. 207M. MICROBIOLOGY

Two and one-half credits

Microbiology is the scientific study of micro-organisms. The fundamental characteristics of procaryotes and eucaryotes are discussed. Biology of viruses and principles of infection and immunity are included. Fee: \$15.

#### BIO. 208M. ECOLOGY

Two and one-half credits

Ecology is the study of the interrelationships between organisms, singly and collectively, and their environment. Fee: \$15.

#### BIO. 301. GENERAL BOTANY

Three credits

This course in Botany presents a broad survey of the major divisions of the plant kingdom (excluding bacteria and fungi), from the standpoints of classification, habitat, life cycles, structure, development, evolution, and physiology. Emphasis is placed on the higher land plants. Lecture, two hours a week; laboratory, three hours a week. Fee: \$15.

#### BIO. 302. ENDOCRINOLOGY

Three credits

Endocrinology is a study of the endocrine system and its secretions. The roles of hormonal integration in the regulation and coordination of life processes and functions are considered extensively, together with neuroendocrine physiology and mechanisms of hormone action. Emphasis is placed on the mammalian system with reference to comparative forms. Fee: \$20.

Prerequisite: Bio. 201M-208M, or permission of instructor.

#### BIO. 303. BACTERIOLOGY

Three credits

Bio. 303 is a general introductory course covering the morphology and growth of bacteria, sterilization, and applied uses of bacteria. The laboratory work covers techniques of staining, culturing, and biochemical testing for the identification of bacteria. Lecture, two hours a week; laboratory, three hours a week. Fee: \$20.

Prerequisite: Bio. 201M-208M, or permission of instructor.

#### BIO. 305. INVERTEBRATE BIOLOGY

Three credits

This course is a study of the major invertebrate phyla with respect to their taxonomy, evolution, morphology, physiology and ecology. Fee: \$20.

Prerequisite: Bio. 201M-208M, or permission of instructor.



**BIO. 306. NEUROBIOLOGY** **Three credits**  
This course is a study of the functional aspects of excitable cells and nervous systems of living animals. Laboratory includes techniques in the stimulation and recording of excitable cells and organs. Fee: \$20.

Prerequisite: Bio. 201M-208M, or permission of instructor.

**BIO. 307. ANALYTICAL CYTOLOGY** **Three credits**  
This course presents an experimental analysis of cell structure, organelles, chemistry and activities by means of microscopic techniques and instrumentation. Fee: \$20.

Prerequisite: Bio. 201M-208M, or permission of instructor.

**BIO. 308. ADVANCED GENETICS.** **Three credits**  
This course is a study of plant and animal genetic systems with respect to contemporary literature, techniques and modes of analysis. Fee: \$20.

Prerequisite: Bio. 201M-208M, or permission of instructor.

**BIO. 309. EVOLUTION** **Three credits**  
Evolution is the study of living things with time. Theories relating to the origin of life, natural selection, and speciation, as processes of organic evolution are emphasized. Lecture, three hours.

Prerequisite: Bio. 201M-208M, or permission of instructor.

**BIO. 310. ANIMAL BEHAVIOR** **Three credits**  
Animal behavior is a course emphasizing behavior as the response of an organism to physical and social environmental change, and covering the processes that determine when changes in behavior occur and what form the changes take. Laboratories, using local fauna, demonstrate principles discussed in lecture. Lecture, two hours; laboratory, three hours a week. Fee: \$20.

Prerequisite: Bio. 201M-208M, or permission of instructor.

**BIO. 311. POPULATION AND COMMUNITY ECOLOGY** **Three credits**  
This course is a study of populations and communities as living systems integrated with their environments. Field investigations of local plant and animal assemblages constitute a major portion of the course. Lecture, two hours a week; laboratory, three hours a week. Fee: \$20.

Prerequisite: Bio. 201M-208M, or permission of instructor.

**BIO. 312. COMPARATIVE PHYSIOLOGY** **Three credits**  
Comparative physiology provides an extensive consideration of the physiology of organs and organ systems in comparative animal forms. Emphasis is placed on the similarities and differences in which related and/or divergent forms have solved various physiological problems. Lecture, two hours per week; laboratory, three hours per week. Fee: \$20.

Prerequisite: Bio. 201M-208M, or permission of instructor.

**BIO. 313. PARASITOLOGY** **Three credits**  
Parasitology is the study of organisms that live on or within other organisms and the relationship of these organisms to their hosts. This course deals with the common parasites that infect man and other animals. Lecture, two hours per week; laboratory, three hours per week. Fee: \$20.

**BIO. 314. ICHTHYOLOGY** **Three credits**  
Ichthyology surveys the taxonomy, anatomy, physiology, evolution, ecology, and behavior of the three classes of fishes. Both local and marine species are examined in the laboratory. Lecture, two hours per week; laboratory, three hours per week. Fee: \$20.

Prerequisite: Bio. 201M-208M, or permission of instructor

**BIO. 395-396. INDEPENDENT RESEARCH** **One to three credits**  
This course involves independent study and research for advanced students in the field of the major under the direction of a staff member. A research paper at a level significantly beyond a term paper is required.

Prerequisite: Approval of the departmental chairperson is required.

**BIO. 397. SEMINAR** **One credit**  
Presentations and discussions of selected topics.

Prerequisite: Approval of the departmental chairperson is required.

**BIO. 398. TOPICS** **Three credits**  
A study of topics of special interest not extensively treated in regularly offered courses may be presented under this course number.

## Chemistry

Professor Bohning, chairperson; Professors Faut, Rozelle, Salley, Swain; Associate Professors Labows (on leave), Stine; Assistant Professor Hindman; Instructor Gauntlett.

The chemistry curriculum is planned to provide thorough training in the fundamentals of the science and to contribute to the general education of the student. Graduates with a B.S. degree may enter industry immediately upon graduation or may continue their studies in graduate school. The B.A. degree is designed for the student interested in a major in chemistry in preparation for a career in teaching, medicine, dentistry, technical sales, technical librarianship, technical translator, etc. The student will choose electives after consultation with his advisor.

Wilkes is approved by the American Chemical Society for the professional training of chemists. Students who complete the B.S. program may be certified for full membership in the Society at graduation.

FIRST SEMESTER			SECOND SEMESTER		
	B.A.	B.S.		B.A.	B.S.
Chem. 201	4	4	Chem. 202	4	4
Eng. 101	3	3	Eng. 102	3	3
Math. 111	4	4	Math. 112	4	4
Core Elective <sup>1</sup>	3	3	Core Elective	3	3
P.E. 100	0	0	P.E. 100	0	0
P.E. 105	1	1	P.E. 106	1	1
	<hr/> 15	<hr/> 15		<hr/> 15	<hr/> 15

<sup>1</sup> Chemistry majors must demonstrate competence in a foreign language through the Foreign Language 204 level. No more than six credit hours may be counted in fulfillment of the core requirements.



THIRD SEMESTER			FOURTH SEMESTER		
	B.A.	B.S.		B.A.	B.S.
Chem. 237	4	4	Chem. 212	4	4
Phys. 201	4	4	Chem. 238	4	4
Math. 211	4	4	Phys. 202	4	4
Core Elective	3	3	Math. 212	—	4
P.E. 100	0	0	P.E. 100	0	0
Elective	3	3	Core Elective	3	—
	18	18		15	16

FIFTH SEMESTER			SIXTH SEMESTER		
	B.A.	B.S.		B.A.	B.S.
Chem. 221	4	4	Chem. 262	2	2
Chem. 341	4	4	Chem. 336	—	4
Phys. 203	3	3	Chem. 342	—	4
Core Electives	6	6	Core Electives	6	6
	17	17	Electives	9	—
				17	16

SEVENTH SEMESTER			EIGHTH SEMESTER		
	B.A.	B.S.		B.A.	B.S.
Chem. 261	1	1	Chem. 376	—	4
Chem. 397	1	1	Chem. 397	1	1
Core Electives	6	6	Core Electives	3	6
Electives <sup>1</sup>	9	9	Electives <sup>1</sup>	12	6
	17	17		16	17

Total credits required for a B.A. degree with major in Chemistry — 130

Total credits required for a B.S. degree with major in Chemistry — 131

#### CHEM. 100. BASIC MATHEMATICS FOR INTRODUCTORY CHEMISTRY

No credit

A remedial course for students desiring an intensive survey of basic mathematical principles used in beginning chemistry courses. Topics include arithmetical operations, exponential notation, equations, graphing, logarithms, dimensional analysis, and the use of a slide rule. Fee: \$50.

#### CHEM. 101-102. CHEMICAL SCIENCE

Three credits each semester

Chemical Science is a course which will consider a variety of applications of chemistry in everyday life. This course is primarily intended for students who take no other chemistry courses. It does not provide prerequisite background for any advanced chemistry courses. Class, three hours a week.

Prerequisite for Chem. 102, Chem. 101, or permission of instructor.

<sup>1</sup> Electives must include at least one advanced chemistry course in Semester 7 or 8.

#### CHEM. 105. INTRODUCTION TO CHEMICAL REACTIONS AND PRINCIPLES

Four credits

Three major areas of emphasis will be developed: descriptive inorganic chemistry; acids, bases, and buffers; and radiochemistry. These areas will include gas laws, oxidation-reduction, equilibrium, stoichiometry, the periodic table, and solutions. Not open to chemistry majors. Class, three hours a week; laboratory, three hours a week. Fee: \$20.

#### CHEM. 201. ELEMENTS AND COMPOUNDS

Four credits

Emphasis is placed on the periodic table and stoichiometry, including chemical properties, physical states, and structure. Class, three hours a week; laboratory, three hours a week. Fee: \$20.

#### CHEM. 202. THE CHEMICAL REACTION

Four credits

A detailed study of chemical equilibria in aqueous solution. Class, three hours a week, laboratory, three hours a week. Fee: \$20.

Prerequisite: Chem. 201.

#### CHEM. 212. SYSTEMATIC INORGANIC CHEMISTRY

Four credits

A systematic description of the chemistry of the elements based on fundamental chemical principles. Fundamental techniques of inorganic synthesis. Class, three hours a week; laboratory, three hours a week. Fee: \$20.

Prerequisite: Chem. 202, or permission of instructor.

#### CHEM. 221. INORGANIC QUANTITATIVE ANALYSIS

Four credits

An introduction to the theory and practice of typical analyses: volumetric, gravimetric, and instrumental. Class, two hours a week; laboratory, six hours a week. Fee: \$30.

Prerequisite: Chem. 202, or permission of instructor.

#### CHEM. 230. ORGANIC AND BIOLOGICAL CHEMISTRY

Four credits

An introduction to the structure and reactions of carbon compounds as a background for the study of interactions of biologically active compounds such as carbohydrates, proteins, and nucleic acids. Not open to chemistry majors. Lecture, three hours a week; laboratory, three hours a week. Fee: \$20.

Prerequisite: Chem. 105, Chem. 201, or equivalent.

#### CHEM. 237. ORGANIC CHEMISTRY I

Four credits

An introduction to the chemistry of carbon compounds through the reactions of common functional groups in aliphatic, alicyclic, aromatic and heterocyclic systems. Reaction pathways will be considered. Emphasis in laboratory will be placed on the development of fundamental techniques. Class, three hours a week; laboratory, three hours a week. Fee: \$20.

Prerequisite: Chem. 202, or permission of instructor.

#### CHEM. 238. ORGANIC CHEMISTRY II

Four credits

A continuation of Chem. 237. Class, three hours a week; laboratory, three hours a week. Fee: \$20.

Prerequisite: Chem. 237.

#### CHEM. 261. HISTORY OF CHEMISTRY

One credit

A study of chemistry in terms of the personalities responsible for its development. Class, one hour a week.

Prerequisite: Completion of twenty chemistry credits.

#### CHEM. 262. CHEMICAL LITERATURE

Two credits

Discussion of the nature and use of the important sources of chemical information. Laboratory problems emphasize techniques of information retrieval from journals, abstracts, and other source material. Literature preparation for independent research (Chem. 395-396) is included. Class, one hour a week; library laboratory, three hours a week.

Prerequisite: Completion of twenty chemistry credits, or permission of instructor.



**CHEM. 336. CHEMICAL STRUCTURE DETERMINATION** **Four credits**

A study of structure determination techniques used by the chemist with emphasis on the areas of organic, inorganic and biochemistry. Techniques studied include nuclear magnetic resonance, infrared, ultraviolet-visible and electron spin resonance spectroscopy. Electrophoresis, ion exchange chromatography, gel permeation chromatography and vapor pressure osmometry are also covered. Class, two hours a week; laboratory, six hours a week. Fee: \$30.

Prerequisite: Chem. 212, Chem. 238, or equivalent.

**CHEM. 341. PHYSICAL CHEMISTRY I** **Four credits**

The first and second laws of thermodynamics are developed, leading to an emphasis on the applications of the free energy concept: electrochemistry, the phase rule, and colligative properties. The quantum chemistry of some simple systems is studied. Chemical kinetics is introduced. Class, three hours a week; laboratory, three hours a week. Fee: \$20.

Prerequisite: Chem. 202, Math. 211, Phys. 203, or permission of instructor.

**CHEM. 342. PHYSICAL CHEMISTRY II** **Four credits**

Theoretical kinetics, kinetic molecular theory and nuclear chemistry are studied in detail. The molecular orbital theory and other approximate methods of quantum theory are developed. Statistical mechanics and surface chemistry are introduced. Class, three hours a week; laboratory, three hours a week. Fee: \$20.

Prerequisite: Chem. 341, or permission of instructor.

**CHEM. 376. ADVANCED ANALYTICAL CHEMISTRY** **Four credits**

The theory and application of modern techniques and instrumental procedures, such as spectrophotometric, electro-analytical, and chromatographic. Theory and practice of analysis of more complex materials. Class, two hours a week; laboratory, six hours a week. Fee: \$30.

Prerequisite: Chem. 342.

**CHEM. 395-396. INDEPENDENT RESEARCH** **One to three credits each semester**

Independent study and research for advanced students in the field of the major under the direction of a staff member. A research paper at a level significantly beyond a term paper is required. Cannot be taken for credit before the seventh semester but may be a continuation of work begun before the seventh semester. Fee: \$20.

Prerequisite: Approval of department chairperson is required.

**CHEM. 397. SEMINAR** **One credit**

Presentations and discussions of selected topics in chemistry conducted by senior chemistry majors and the staff. All chemistry majors are invited to attend the meetings.

Prerequisite: Approval of department chairperson is required.

**CHEM. 401. APPLIED CHEMISTRY I** **Three credits**

Consideration will be given to a variety of applications of chemistry. Major areas of emphasis will include nuclear chemistry, food, drugs, energy and home products. The course is intended primarily for students pursuing an advanced degree in education. Class, three hours a week.

Prerequisite: Four semesters of college-level chemistry or permission of instructor.

**CHEM. 402. APPLIED CHEMISTRY II** **Three credits**

A continuation of Chemistry 401. Class, three hours a week.

Prerequisite: Chem. 401, or permission of the instructor.

**CHEM. 411. ADVANCED INORGANIC CHEMISTRY** **Three credits**

Introduction to ligand field theory; chemistry of the first transition series, organometallic, and acceptor compounds; mechanisms of inorganic reactions.

Prerequisite: Chem. 342, or permission of instructor.

**CHEM. 431-432. ADVANCED ORGANIC CHEMISTRY****Three credits each semester**

A detailed study of modern theories of mechanism and structure. Topics include nucleophilic and electrophilic substitution, elimination reactions, molecular rearrangements, carbonyl reactions, stereochemistry, kinetics. Class, three hours.

**CHEM. 434. STEREOCHEMISTRY****Three credits**

A detailed study of symmetry classifications, stereoisomerism, optical activity and conformational analysis, including related theory and experimental applications of ORD, CD, and NMR.

**CHEM. 440. QUANTUM CHEMISTRY****Three credits**

The experimental foundations and the mathematical formulation of the quantum theory, including the quantum mechanics of simple systems, the hydrogen atom, and approximate methods. Group theory is introduced and the use of symmetry properties is applied to molecular orbital theory. Class, three hours.

Prerequisite: Chem. 342.

**CHEM. 451. BIOCHEMISTRY I****Three credits**

A study of the physical and chemical properties of biological molecules with emphasis on enzyme kinetics, coenzymes and various metabolic pathways. Class, three hours a week.

Prerequisite: Chem. 238, or equivalent.

**CHEM. 452. BIOCHEMISTRY II****Three credits**

A study of metabolism with emphasis on metabolic regulation and regulated enzymes. Certain special topics such as photosynthesis may also be covered. Class, three hours a week.

Prerequisite: Chem. 451, or equivalent.

**Commerce and Finance**

The Commerce and Finance Department offers a B.S. degree program which provides for a variety of alternative career choices.

**Accounting**

Professor R. Werner, chairperson; Professor R. Capin; Associate Professor Pawlenok; Assistant Professors Gettinger, Hall, Morrison.

**MAJOR IN ACCOUNTING**

FIRST SEMESTER		SECOND SEMESTER	
Acct. 101	3	Acct. 102	3
Eng. 101	3	Eng. 102	3
Core Elective	3	Core Elective	3
B.A. 101	3	Comp. Sci. 124	3
Math. 100 or 101 or 105	3-4	Math. 102 or Math. 106	3-4
P.E. 100	0	P.E. 100	0
P.E. 105	1	P.E. 106	1
16-17		16-17	



THIRD SEMESTER		FOURTH SEMESTER	
Acct. 111	3	Acct. 112	3
B.A. 231	3	B.A. 232	3
Ec. 101	3	Ec. 102	3
Core Electives	6	Core Electives	6
Speech 101	3	P.E. 100	0
P.E. 100	0		
	18		15

FIFTH SEMESTER		SIXTH SEMESTER	
Acct. 201	3	Acct. 204	3
Ec. 201	3	Acct. 242	3
Ec. 231	3	Ec. 232	3
Core Electives	6	Core Electives	6
Acct. 241	3	Elective	3
	18		18

SEVENTH SEMESTER		EIGHTH SEMESTER	
Acct. 221	3	Acct. 252	3
Acct. 231	3	B.A. 226	3
B.A. 209	3	Ec. 228	3
B.A. 225	3	Elective <sup>1</sup>	3
B.A. 251	3		
Elective <sup>1</sup>	3		
	18		12

Accounting courses should be taken in sequence.

**ACCT. 101. ELEMENTARY ACCOUNTING I** **Three credits**  
Fundamental theory of debits and credits; problems of classification and interpretation of financial data; technique of recording; preparation of financial statements. Class, three hours a week; tutorial, two hours a week.

**ACCT. 102. ELEMENTARY ACCOUNTING II** **Three credits**  
A continuation of Accounting 101. Principles of partnership and corporation accounting; introduction to departmental, manufacturing, and branch accounting; financial analyses of statements. Class, three hours a week; tutorial, two hours a week.

**ACCT. 111. INTERMEDIATE ACCOUNTING I** **Three credits**  
A comprehensive analysis of the accounting process and the financial statements. Intermediate problems pertaining to Cash, Receivables, Inventories, Current Liabilities, and Investments in Stocks. Class, three hours a week; tutorial, two hours a week.

<sup>1</sup>Students intending to sit for the New York State C.P.A. examinations should elect subjects in the humanities. All students should choose electives from outside the major field.

**ACCT. 112. INTERMEDIATE ACCOUNTING II** **Three credits**  
A continuation of Intermediate Accounting I. Intermediate problems pertaining to Investments in Bonds and Funds, Plant and Equipment, Intangibles, Long-Term Liabilities, and Stockholders Equity; financial statement analysis and Fund and Cash Flow Reporting. Class, three hours a week; tutorial, two hours a week.

**ACCT. 201. COST ACCOUNTING I** **Three credits**  
Principles and practices of Cost Accounting including a study of job, process, and standard cost systems. Informative systems design, budgeting, variance analysis, and direct costing concepts are discussed.

**ACCT. 204. MANAGERIAL ACCOUNTING** **Three credits**  
Uses of accounting data in planning and controlling business activities. Includes problem areas in accountability, cost and profit analysis, pricing decisions, capital investment problems, and quantitative techniques. The tax consequences of business decisions are discussed.

**ACCT. 221. TAXES I** **Three credits**  
The preparation of Federal Income Tax Returns for individuals based on current law, regulations and court decisions; problems of inclusion and exclusion from income; gains and losses from sales and exchanges; allowable deductions. Class, two hours a week; laboratory, two hours a week.

Prerequisite: Acct. 112, or approval of instructor.

**ACCT. 222. TAXES II** **Three credits**  
Tax accounting for installment and deferred payment sales; Federal tax returns for partnerships; fiduciaries and corporations; miscellaneous Federal and Pennsylvania corporate taxes. Class, three hours a week.

Prerequisite: Acct. 221.

**ACCT. 231. AUDITING I** **Three credits**  
An analysis of modern auditing concepts involving staff organization, professional ethics and legal responsibility, internal control, audit programs, and working papers, and original record examination. Class, three hours a week.

**ACCT. 241. ADVANCED ACCOUNTING I** **Three credits**  
A comprehensive review of partnerships; special procedures and problems of installment sales, consignments, home office and branch relationships; introduction to accounting for business combinations and consolidations. Class, three hours a week.

Prerequisite: Acct. 112.

**ACCT. 242. ADVANCED ACCOUNTING II** **Three credits**  
A detailed analysis of the problems of consolidations; analysis of the procedure in accounting for bankruptcies, receiverships, estates and trusts, foreign exchange, and governmental units. Class, three hours a week.

Prerequisite: Acct. 241 and permission of instructor.

**ACCT. 252. ACCOUNTING INTERNSHIP** **Three credits**  
This course provides on-the-job accounting experience for accounting majors. A minimum of 240 hours is provided with either certified public accounting firms, government, or private industry.

NOTE: Accounting courses should be taken in sequence.



### Business Administration

Professor R. Werner, chairperson; Professors Elliot, Farrar; Associate Professor Engel; Assistant Professors Cooney, Gera, Gurdin.

#### MAJOR IN BUSINESS ADMINISTRATION

FIRST SEMESTER		SECOND SEMESTER	
Acct. 101	3	Acct. 102	3
B.A. 101	3	Eng. 102	3
Eng. 101	3	Speech 101	3
Core Electives	6	Core Electives	9
P.E. 100	0	P.E. 100	0
P.E. 105	1		
	16		18
THIRD SEMESTER		FOURTH SEMESTER	
B.A. 231	3	B.A. 232	3
Ec. 101	3	Ec. 102	3
Core Electives	6	Core Electives	6
Math. 100 or Math. 101 or Math. 105	3-4	B.A. 115 or Math. 102 or Math. 106	3-4
P.E. 100	0	P.E. 100	0
		P.E. 106	1
	15-16		16-17
FIFTH SEMESTER		SIXTH SEMESTER	
B.A. 251	3	B.A. 252 or B.A. 254	3
Ec. 201	3	Ec. 202 or Ec. 228 or C. and F. elective	3
Ec. 231	3	Ec. 232	3
Core Elective	3	Core Elective	3
Electives	6	B.A. 222	3
		Elective	3
	18		18
SEVENTH SEMESTER		EIGHTH SEMESTER	
B.A. 209	3	B.A. & Ec. electives	12
B.A. 225	3	Eective	3
B.A. & Ec. electives	9		
Elective	3		
	18		15

Total minimum credits required for B.S. degree with a major in Accounting — 130.

Total minimum credits required for B.S. degree with a major in Business Administration — 133.

Students who major in business administration will select their electives from the following. At least six courses in one of these groups are required of students concentrating in this field.

#### BANKING AND FINANCE

Acct. 111 — Intermediate Accounting I	Ec. 236 — Public Finance
Acct. 112 — Intermediate Accounting II	Ec. 241 — Economic Analysis
B.A. 220 — Real Estate	Ec. 252 — Introduction to Mathematical Economics
B.A. 226 — Investments	Math. 105 — Introductory Calculus I
B.A. 240 — Property Insurance	Math. 106 — Introductory Calculus II
B.A. 241 — Life Insurance	Comp. Sci. 124 — COBOL Programming
Ec. 202 — Theory of Money	Comp. Sci. 224 — Advanced COBOL and File Management
Ec. 224 — Economic Development	
Ec. 225 — International Trade	

#### ECONOMICS

Ec. 212 — Government & Business	Ec. 230 — Business Cycles
B.A. 217 — Logistics and Distribution Management	Ec. 236 — Public Finance
Ec. 222 — American Labor Movement	Ec. 241 — Economic Analysis
Ec. 223 — Collective Bargaining	Ec. 245 — Consumer Economics
Ec. 224 — Economic Development	Ec. 252 — Introduction to Mathematical Economics
Ec. 225 — International Trade	Ec. 395-396 — Research
Ec. 227 — Economic Geography of North America, Europe and the Soviet Union	Math. 105 — Introductory Calculus I
Ec. 228 — Economic Geography of Asia, Africa and Latin America	Math 106 — Introductory Calculus II
Ec. 229 — Comparative Economic Systems	Comp. Sci. 123 — FORTRAN Programming
	Comp. Sci. 223 — Advanced Programming — FORTRAN
	Comp. Sci. 224 — Advanced COBOL and File Management

#### MANAGEMENT AND INDUSTRIAL RELATIONS

Ec. 222 — American Labor Movement	Psy. 242 — Psychological Tests or
Ec. 223 — Collective Bargaining	Psy. 243 — Industrial Psychology
B.A. 217 — Logistics & Distribution Management	Math. 105 — Introductory Calculus I
B.A. 240 — Property Insurance	Math. 106 — Introductory Calculus II
B.A. 241 — Life Insurance	Math. 262 — Operations Research
B.A. 252 — Operations & System Management or	Comp. Sci. 124 — COBOL Programming
B.A. 254 — Organizational Design & Behavior	Comp. Sci. 224 — Advanced COBOL and File Management
B.A. 256 — Business Policies & Corporate Responsibility	P.S. 207 — Public Administration
Psy. 232 — Human Behavior	P.S. 222 — International Relations
	Soc. 265 — Sociology of Industry
	Acct. 201 — Cost Accounting
	Acct. 204 — Managerial Accounting



## MARKETING

B.A. 114 — Salesmanship  
 B.A. 216 — Advertising  
 B.A. 217 — Logistics & Distribution Management  
 B.A. 240 — Property Insurance  
 B.A. 241 — Life Insurance  
 B.A. 261 — Principles of Retailing  
 B.A. 264 — Retail Buying  
 Ec. 224 — Economic Development  
 Ec. 225 — International Trade

Ec. 245 — Consumer Economics  
 Math. 105 — Introductory Calculus I  
 Math. 106 — Introductory Calculus II  
 Comp. Sci. 124 — COBOL Programming  
 Comp. Sci. 224 — Advanced COBOL & File Management  
 Soc. 265 — Sociology of Industry  
 Psy. 232 — Human Behavior  
 Psy. 243 — Industrial Psychology  
 P.S. 222 — International Relations

**B.A. 101. INTRODUCTION TO PRIVATE SECTOR BUSINESS** **Three credits**  
 Designed to orient freshman students to the framework within which business enterprises function in the economy. Stress is placed on decision-making, small business operation and problems of financial resources.

**B.A. 114. SALESMANSHIP** **Three credits**  
 The art of selling; the motive behind all buying; creation of interest and desire; presentation of services; meeting objections; types of customers.

**B.A. 115. MATHEMATICS OF BUSINESS AND FINANCE** **Three credits**  
 This course will include progressions, logarithms, per cent, interest, discounts, equation of value, annuities, sinking funds, depreciation, taxes, profit and loss.

**B.A. 209. BUSINESS CORRESPONDENCE AND REPORTS** **Three credits**  
 Fundamental principles of business writing with emphasis on letters and reports.

**B.A. 216. ADVERTISING** **Three credits**  
 A study of basic principles of advertising. Elements of advertising; a survey of different departments of advertising work, including copy, art, display, engraving, trade-marks, and media. Analysis of current advertisements. Advertising as a social force.

**B.A. 217. LOGISTICS AND DISTRIBUTION MANAGEMENT** **Three credits**  
 Development and organization of the domestic and international transportation system; regulatory considerations. Distribution management practices; e.g., rates, routes, scheduling, services, insurance, materials handling, warehousing.

**B.A. 220. REAL ESTATE** **Three credits**  
 Economic theories of value applied to real estate, valuation as a guide to decisions, market analysis, real estate, finance, property development and management, locational theory and site selection.

**B.A. 22. MARKETING** **Three credits**  
 The fundamentals of the marketing system, its functions, institutions and their importance in the economy are studied. Marketing pricing policies and practices are investigated; reference is made to marketing activities and government participation.

**B.A. 225. MANAGERIAL FINANCE** **Three credits**  
 A study of the economic principles underlying the capital structure of modern business enterprise. Consideration given to alternate types of business organization, corporate securities, and financial policies involved in promotion, disposition of net earnings, working capital and short-term financing, mergers, expansion, financial readjustments, and reorganization.

**B.A. 226. INVESTMENTS** **Three credits**  
 Consideration of leading types of investments, tests, and investment programs; financial reports of leading companies, forecasting methods and agencies, stock exchanges, brokerage houses, methods of buying and selling securities, fraudulent promotions and their detection. Laboratory work and case studies.

**B.A. 231. BUSINESS LAW — INTRODUCTION, CONTRACTS, AND SALES** **Three credits**

The foundation for all subjects in the field of business law. The nature, classification, and sources of law. Examination of the essential elements of a contract and the nature of contract rights under both the common law and the Uniform Commercial Code. A study of the law of sales of goods: the transfer of title and risk of loss, warranties and product liability, and secured transactions.

**B.A. 232. BUSINESS LAW — AGENCY, PARTNERSHIPS, CORPORATIONS, AND REAL PROPERTY** **Three credits**

A study of the principles of law governing partnerships and corporations, with respect to formation, operation, internal relationships and dissolution, as well as the advantages and disadvantages of these forms of business association. A survey of the law of real property, nature and types of interests in land. A discussion of deeds and their prerequisites.

**B.A. 234. BUSINESS LAW — PROPERTY** **Three credits**

The law of real property, nature and types of interests in land. A discussion of deeds and their prerequisites. The rights and duties of the landowner to the public. Rights of the government versus rights of the landowner. The landlord-tenant relationship, the mortgagor-mortgagee relationship.

**B.A. 240. PROPERTY INSURANCE** **Three credits**

This course is a study of the fundamentals of fire, casualty, and marine insurance.

**B.A. 241. LIFE INSURANCE** **Three credits**

This course is a study of the principles, practices, and uses of life insurance from the overall viewpoint of the product, cost, market, and industry.

**B.A. 251. PRINCIPLES OF MANAGEMENT** **Three credits**

Nature and evolution of management thought. Fundamental universal concepts covered: decision-making, policy formulation, planning, organizing, staffing, actuating, communicating, directing, controlling, etc. Views management as process of integrating knowledge developed by many disciplines. Social and ethical dimensions of the management process summarized.

**B.A. 252. OPERATIONS AND SYSTEMS MANAGEMENT** **Three credits**

Principles of decision-making, systems design, introduction to quantitative tools of analysis; fundamentals of production, inventory, financial, and distribution management.

**B.A. 254. ORGANIZATIONAL DESIGN AND BEHAVIOR** **Three credits**

Current organizational principles of authority, responsibility, leadership, span of control, departmentalization, line/staff relationships, decentralization, committees, staffing, directing, and work groups with emphasis on behavioral science applications

**B.A. 256. BUSINESS POLICIES AND CORPORATE RESPONSIBILITY** **Three credits**

Integration of background acquired by the student to policy issues. Study of current ideologies and ethics within the institutional framework of the capitalist tradition. Discussion of actual cases.

**B.A. 261. PRINCIPLES OF RETAILING** **Three credits**

A basic course that discusses opportunities in retailing; types of retail institutions; problems of store policy, store location; study of organizational structure of department stores; organization and functions of all store divisions.



**B.A. 264. RETAIL BUYING****Three credits**

A study of the principles of what, when, and how much to buy; a study of customer demand. Special attention is given to the technique of buying; markups, markdowns, stock turns, and other factors that are necessary to keep lines complete.

**B.A. 395-396. INDEPENDENT RESEARCH****One to three credits**

Independent study and research for advanced students in the field of the major under the direction of a staff member. A research paper at a level significantly beyond a term paper is required.

**B.A. 397. SEMINAR****One to three credits****(Maximum of three credits per student)**

Presentations and discussions of selected topics.

**Economics**

Professor R. Werner, chairperson; Professors Elliot, Farrar; Associate Professors DeYoung, Engel, Taylor (sabbatical), Williams.

Students who major in Economics are required to complete twenty-four hours of work in economics beyond Ec. 101-102 in addition to the general requirements for the B.A. degree. Selection and scheduling of these courses will be done in consultation with the student's advisor. The twenty-four hours in economics which the major must carry include Ec. 201, 231, 232, 241, and 251. Students who elect a program in Economics should take Math. 105, 106 and, if necessary, Math. 100.

Total minimum credits required for a B.A. degree — 121.

**EC. 101. PRINCIPLES OF ECONOMICS I****Three credits**

An introductory course which presents basic economic problems and shows how these problems are solved in a free enterprise economy; the effects of the increasing importance of the economic role of government are pointed out. The course provides orientation in the broad field of economics and makes use of the analytical trends by means of which the student can understand the economic problems of his environment.

**EC. 102. PRINCIPLES OF ECONOMICS II****Three credits**

This course is a logical sequence to Economics 101. It is based upon a broad microeconomic foundation concentrated on such units as the firm, the industry, and the consumer.

**EC. 201. MONEY AND BANKING****Three credits**

A study of money, credit, and banking operations. Development of American monetary and banking system. Central banking and the Federal Reserve System. Instruments of monetary control. Financial intermediaries. Monetary standards and international monetary relations.

**EC. 212. GOVERNMENT AND BUSINESS****Three credits**

A study of the relationship of government to economic enterprises with special attention to conditions in the United States; the regulatory activities of government agencies; administrative methods, objectives and results of governmental control. Reference is made to monopoly and quasi-monopoly situations, public utilities, trusts, transportation, extractive industries, and public enterprise.

**EC. 222. THE AMERICAN LABOR MOVEMENT****Three credits**

A study of the evolving American labor movement and its ideology. This course deals with the development of American labor ideology and psychology in comparison with other labor movements. The relationship of the American labor movement to other political, social and economic institutions is investigated.

**EC. 223. COLLECTIVE BARGAINING****Three credits**

An introduction to labor problems and an analysis of major issues in the field of labor. This course deals with collective bargaining, employment, wages, hours and union policies. Governmental participation in labor relations and collective bargaining is also investigated. Reference is made to social welfare devices such as social security, unemployment compensation and workmen's compensation.

**EC. 224. ECONOMIC DEVELOPMENT****Three credits**

A study and analysis of the theories of economic development. Guidelines are provided for development policy in various underdeveloped areas of the world. Objective comparisons are made which deal with factors that underlie the transition from economic backwardness to sustained economic growth.

**EC. 225. INTERNATIONAL TRADE****Three credits**

Theory and practice of international trade with special reference to contemporary problems and policies. The topics covered include tariffs, quotas, foreign exchange, equilibrium in international payments. A study will be made of geographic, economic, social, and political influences on international trade. Review of current policies and developments in the United States.

**EC. 227. ECONOMIC GEOGRAPHY OF NORTH AMERICA, EUROPE, AND THE SOVIET UNION****Three credits**

A study and analysis of the characteristics, potentials and problems of the more advanced nations of the Northern Hemisphere.

**EC. 228. ECONOMIC GEOGRAPHY OF ASIA, AFRICA, AND LATIN AMERICA****Three credits**

A study and analysis of the characteristics, potentials and problems of the less developed nations of the world.

**EC. 229. COMPARATIVE ECONOMIC SYSTEMS****Three credits**

The institutions of a market economy are analyzed as a foundation for purposes of comparisons. Marxist theory of prices, wages and the demise of capitalism are studied in order to establish the theoretical basis of Socialism and Communism. Particular stress is placed on the performance of the Soviet economy. Attention is also given to important operational aspects of the Chinese, British and Swedish systems.

**EC. 230. BUSINESS CYCLES****Three credits**

A historical analysis of major business cycles. Contemporary theories and a critical examination of public policy toward business cycles.

**EC. 231. APPLIED GENERAL STATISTICS****Three credits**

A course in statistical methods and their application. A collection and interpretation of statistical data, frequency distribution and measures of central tendency, fitting the normal curve, analysis of variance. Lecture, three hours; laboratory, two hours. Fee: \$15.



**EC. 232. ECONOMICS STATISTICS****Three credits**

A continuation of Economics 231. This course will include time-series analysis, construction of index numbers, methods of correlation analysis, multiple and partial correlation, and test of significance for samples; Chi-square test. Lecture, three hours; laboratory, two hours. Fee: \$15.

**EC. 234. ECONOMIC RESEARCH****Three credits**

The purpose of this course is to provide an introduction to the methods and logic of linear programming, input output analysis, queueing theory, index numbers and other techniques of research in economics. Students are advised to take Economics 101 and 102 to obtain the theoretical background for this course.

**EC. 236. PUBLIC FINANCE****Three credits**

Fundamental principles of public finance; government expenditures; revenue; financial policies and administration; taxation; principles of shifting and incidence of taxation; public debts and the budget; fiscal problems of federal, state, and local government; the relation of government finance to the economy.

**EC. 241. MICROECONOMICS I****Three credits**

The study of the interaction between households and businesses in product and resource markets. Topics covered include consumer preferences, production theory, cost analysis, market structures and the determination of wages and prices.

**EC. 242. MICROECONOMICS II****Three credits**

The study of the market system as a whole, through Welfare Economics and General Equilibrium analysis with emphasis on social preferences, market failure and policy alternatives.

Prerequisite: Econ. 241 or permission of instructor.

**EC. 245. CONSUMER ECONOMICS****Three credits**

The place of the consumer in the economic system. Theories of consumption; consumption minima; problems of the individual consumer as affected by income, taxes, consumer habits and standards of living are investigated. A study is made of the trends in consumption, income disposition and marketing and pricing of consumer goods. Relationships between government activities and the consumer are studied.

**EC. 251. MACROECONOMICS I****Three credits**

The study of behavior of the important economic aggregates; national income, consumption, investment, public spending and taxes. Special emphasis is on the problems of inflation, and unemployment and the post-Keynesian search for their causes and solutions.

**EC. 252. MACROECONOMICS II****Three credits**

An introduction to the Keynesian and Neoclassical growth theory and the various explanations of behavior of consumption, investment, unemployment and inflation. The course is designed to present an alternative treatment of some topics covered in Macroeconomics I and to extend the student's knowledge into areas not covered.

**EC. 395-396. INDEPENDENT RESEARCH****One to three credits**

Independent study and research for advanced students in the field of the major under the direction of a staff member. A research paper at a level significantly beyond a term paper is required.

**EC. 397. SEMINAR****(Maximum of three credits per student) One to three credits**

Presentations and discussions of selected topics.

**Computer Science**

*See Mathematics and Computer Science*

**Education**

Professor Hammer, chairperson; Professor Dart; Associate Professors Barone, Bellucci, Fahmy, Siles; Assistant Professors Gera, Giordano, Johnson, Rees.

Students wishing to prepare for public school teaching in business subjects or music complete the B.S. program described for these subjects. Prospective elementary school teachers complete the B.A. program.

Prospective secondary school teachers:

- may elect to major in Biology, Chemistry, Economics, English, Foreign Languages, History, Mathematics, Physics, Political Science, Psychology or Sociology-Anthropology. Students who major in Economics, History, Political Science, Psychology or Sociology-Anthropology must complete the Social Studies Certification Program. A description of the program is given below.
- must elect Psy. 101-102.
- must elect Ed. 201, 202, and 330. (Note that Psy. 102 is prerequisite to Ed. 202.)

Transfer students must take at least one course in Education at Wilkes College prior to enrolling in the professional semester. Teacher certification requirements for most states may be met at Wilkes College. Students are expected to familiarize themselves with specific state requirements.

**B.S. Degree — Major in Business Education**

The program in business education is designed to provide a background in general education while it prepares the student for teaching business subjects in secondary schools or for a career in business.

A student planning to enter as a freshman may find it advantageous, at first, to consider a two-year program leading to a certificate in general office or secretarial proficiency. This two-year program provides a foundation for general secretarial preparation, or prepares for later specialization in the four-year major in business education.



FIRST SEMESTER		SECOND SEMESTER	
Bus. Ed. 105 <sup>1</sup> or		Bus. Ed. 106 <sup>1</sup> or	
Acct. 101	2-3	Acct. 102	2-3
Bus. Ed. 107	2	Bus. Ed. 108	2
Speech 101	3	Eng. 102	3
Eng. 101	3	B.A. 115	3
Core Electives	6	Core Electives	6
P.E. 100	0	P.E. 100	0
P.E. 105	1	P.E. 106	1
	17-18		17-18
THIRD SEMESTER		FOURTH SEMESTER	
Bus. Ed. 207 or Acct. 111	3	Bus. Ed. 208 or Acct. 112	3
Bus. Ed. 201 <sup>2</sup>	1	Bus. Ed. 202 <sup>2</sup>	1
Acct. 101 or B.A. 261	3	Acct. 102 or Ret. Elective	3
B.A. 231	3	B.A. 232	3
Psy. 101	3	Psy. 102	3
Ec. 101 <sup>3</sup>	3-4	Ec. 102 <sup>3</sup>	3
P.E. 100	0	P.E. 100	0
	15-17		15-16
FIFTH SEMESTER		SIXTH SEMESTER	
Acct. 111 or B.A. 261 <sup>1</sup>	3	Acct. 112 or Ret. Elective <sup>1</sup>	3
Core Electives	6	Core Electives	6
Ed. 201	3	Ed. 202	3
B.A. 251	3	B.A. 252 or B.A. 254	3
	15		15
SEVENTH SEMESTER		EIGHTH SEMESTER	
Bus. Ed. 243 <sup>2</sup>	3	Ed. 330	12
Bus. Ed. 205	4	Core Elective	3
Core Electives	6		
B.A. 209	3		
	16		15

Total minimum credits required for B.S. degree with a major in Business Education — 124.

### B.A. Degree — Major in Elementary Education

**General core courses** ..... 53-57 credits

Students should elect courses to fulfill prerequisites for later requirements. F.A. 240 is recommended as the Humanities elective.

**Elementary education component** ..... 42 credits

This includes Ed. 201, 202, 291, 292, 300, 391; Math. 232, 243; Psy. 221; six credits in science.

<sup>1</sup>It is required that any Business Education major, regardless of sequence, shall have at least two semesters in Accounting.

<sup>2</sup>Students following accounting sequence need not take third and fourth semesters of typewriting.

<sup>3</sup>Two-year program students take Bus. Ed. 205 in Semester 3 and Ec. 101 in Semester 4.

**Study in one department other than Education** ..... 12 credits  
**Electives** ..... 9-15 credits  
**Total requirements** ..... 121-122 credits

A suggested schedule for completing these requirements may be obtained in the Education Department office.

### Social Studies Certification Program

**General core courses** ..... 53-57 credits  
 Hist. 101-102 and Psy. 101-102 must be taken as part of the core or as electives.

**Major in a social science** ..... 24 credits  
 Economics, History, Political Science, Psychology or Sociology-Anthropology.

**Professional education courses** ..... 18 credits  
 Education 201, 202, 330

**Social Science electives** ..... 15 credits  
 Courses in at least two of the social sciences enumerated above other than the major.

Electives (to complete degree requirements)

**ED. 101-102-103-104-105-106. PRACTICUM IN EDUCATION** **One-half credit**  
 Provides an opportunity for students to gain experience as teachers' aides in school classrooms under supervision. Seminars on campus will provide opportunity to discuss and evaluate practicum experiences.

**ED. 201. INTRODUCTION TO EDUCATION** **Three credits**  
 A study of the historical development of American education, the role of the school in American life, educational philosophies, educational organization and administration, school finance, school curricula, school personnel, and current issues in education.  
 Prerequisite: Sophomore standing.

**ED. 202. EDUCATIONAL PSYCHOLOGY** **Three credits**  
 A study of the principles of learning and the application of psychological principles in the practice of education.  
 Prerequisite: Psy. 102.

**ED. 291. COMMUNICATION SKILLS IN ELEMENTARY EDUCATION** **Two credits**  
 An introductory course in development of rationale, curriculum and materials for instruction of communications skills in the elementary school.  
 Prerequisite: Ed. 201, 202.



**ED. 292. THE SCIENCES IN THE ELEMENTARY SCHOOL** Two credits  
An introductory course in development of rationale, curriculum and materials for instruction of social and natural sciences in the elementary school.

Prerequisite: Ed. 201, 202.

**ED. 300. PROFESSIONAL SEMESTER IN ELEMENTARY EDUCATION** Fifteen credits  
Provides classwork and practical experience to prepare students for elementary school teaching. Fee: \$25.

To qualify for admission to the Professional Semester, students must secure the recommendation of the department chairperson in their major and approval by the Education Department chairperson.

Prerequisites: Ed. 291, 292; Math. 232, 243 and cumulative grade point average of 1.85.

FOR TRANSFER AND CERTIFICATION PURPOSES, CREDIT  
WILL BE ASSIGNED AS FOLLOWS:

**ED. 301. THE TEACHING OF READING** Two credits  
An introduction to the teaching of reading in the elementary grades.

**ED. 302. METHODS AND MATERIALS IN ELEMENTARY SCHOOL ARITHMETIC** Two credits  
A study of curriculum content and teaching procedures in elementary school arithmetic.

**ED. 303. METHODS AND MATERIALS IN ELEMENTARY SCHOOL SCIENCE** Two credits  
A study of curriculum content and teaching procedures in elementary school science.

**ED. 304. METHODS AND MATERIALS IN ELEMENTARY SCHOOL SOCIAL STUDIES** Two credits  
A study of curriculum content and teaching procedures in elementary school history, geography, and government.

**ED. 305. MULTI-SENSORY TECHNIQUES IN ELEMENTARY SCHOOL TEACHING** One credit  
A study of the use of multi-sensory teaching aids in the elementary school classroom.

**ED. 306. STUDENT TEACHING IN ELEMENTARY SCHOOL** Six credits  
Students are assigned to work with experienced classroom teachers. They assume classroom responsibility and teach under supervision. Conferences are arranged with cooperating teachers and college supervisors.

**ED. 320. PROFESSIONAL SEMESTER IN ART EDUCATION** Fourteen credits  
Provides classwork and practical experience to prepare students for the teaching of art in elementary and secondary schools. Fee: \$25.

To qualify for admission to the Professional Semester, students must secure the recommendation of the department chairperson in their major and approval by the Education Department chairperson.

Students may schedule late afternoon or evening classes during the professional semester.

Prerequisite: Ed. 201, 202 and cumulative grade point average of 1.85.

FOR TRANSFER AND CERTIFICATION PURPOSES, CREDIT  
WILL BE ASSIGNED AS FOLLOWS:

**ED. 321. ART CURRICULUM** Three credits  
A study of the organization of teaching materials for most effective use in the art curriculum.

**ED. 322. THE TEACHING OF ART** Three credits  
A study of materials, techniques, and experiences in the public school art program; evaluation of past and present philosophies.

**ED. 323. GENERAL CLASSROOM METHODS** One credit  
A study of various instructional procedures used in public school classrooms.

**ED. 324. MULTI-SENSORY TECHNIQUES IN THE TEACHING OF ART** One credit  
A study of the use of multi-sensory aids in the teaching of art in elementary and secondary schools.

**ED. 326. STUDENT TEACHING IN ART** Six credits  
Students are assigned to work with experienced classroom teachers and art specialists. They observe and teach in elementary and secondary school classrooms. Opportunities are provided for them to participate in school-wide activities. Conferences are arranged with cooperating teachers and college supervisors.

**ED. 330. PROFESSIONAL SEMESTER IN SECONDARY EDUCATION** Twelve credits  
Provides classwork and practical experience to prepare students for secondary school teaching. Fee: \$25.

To qualify for admission to the Professional Semester, students must secure the recommendation of the department chairperson in their major and approval by the Education Department chairperson.

Students may schedule late afternoon or evening classes during the professional semester.

Prerequisite: Ed. 201, 202 and cumulative grade point average of 1.85.

FOR TRANSFER AND CERTIFICATION PURPOSES, CREDIT  
WILL BE ASSIGNED AS FOLLOWS:

**ED. 331. PRINCIPLES OF SECONDARY EDUCATION** One and one-half credits  
A study of the historical development and organization of the American secondary school.

**ED. 332. SECONDARY SCHOOL CURRICULUM** One and one-half credits  
A study of the content and organization of the secondary school curriculum.

**ED. 333. SECONDARY SCHOOL TEACHING METHODS** One credit  
A study of various teaching procedures employed in the secondary school classroom.

**ED. 334. MULTI-SENSORY TECHNIQUES IN SECONDARY SCHOOL TEACHING** One credit  
A study of the use of multi-sensory teaching aids in the secondary school classroom.



**ED. 335. THE TEACHING OF READING IN SECONDARY SCHOOL SUBJECTS****One credit**

Instruction in reading methods in secondary school subjects.

**ED. 336. STUDENT TEACHING IN THE SECONDARY SCHOOL****Six credits**

Students are assigned to work with experienced classroom teachers. They assume classroom responsibility and teach under supervision. Conferences are arranged with cooperating teachers and college supervisors.

**ED. 351. EDUCATIONAL MEASUREMENTS****Three credits**

A study of the characteristics, construction, and use of various educational measuring instruments commonly available in schools.

Prerequisite: Ed. 202.

**ED. 352. GUIDANCE****Three credits**

An introduction to general principles and the techniques employed in guidance programs in public schools.

Prerequisite: Ed. 202.

**ED. 391. INSTRUCTIONAL STRATEGY AND EVALUATION****Two credits**

An introductory course in development of effective elementary school teacher behavior.

Prerequisite: Ed. 202, Psy. 221.

**ED. 395-396. INDEPENDENT RESEARCH****One to three credits**

Independent study and research for advanced students in the field of the major under the direction of a staff member. A research paper at a level significantly beyond a term paper is required.

Prerequisite: Approval of department chairperson is required.

**ED. 397. SEMINAR (Maximum of three credits per student)****One to three credits**

Presentations and discussions of selected topics.

Prerequisite: Approval of department chairperson is required.

**ED. 398. TOPICS IN EDUCATION****Three credits**

A study of topics of special interest not extensively treated in regularly offered courses.

**BUS. ED. 100. PERSONAL TYPEWRITING****No credit**

Designed as a one-semester elective for all students, regardless of major, except Business Education and Secretarial Science majors. Emphasis will be on attaining basic typewriting skill, the typing of personal and business letters, term papers and manuscripts. Four hours per week. Fee: \$50.

**BUS. ED. 105. ELEMENTARY SHORTHAND****Two credits**

Presentation, development and completion of principles of Gregg Shorthand, Diamond Jubilee Series. Consideration given to non-shorthand factors of transcription, as spelling, punctuation, grammar, and word usage. Introduction to dictation and transcription skills. Four hours a week. One hour lecture, three hours laboratory.

**BUS. ED. 106. INTERMEDIATE SHORTHAND****Two credits**

Review and strengthen knowledge of Gregg Shorthand, Diamond Jubilee Series shorthand theory. Development of new word-building power through progressive skill-building dictation. Extending knowledge and skill in basic elements of transcription. Four hours each week. One hour lecture, three hours laboratory.

Prerequisite: Bus. Ed. 105, or approval of instructor.

**BUS. ED. 107. ELEMENTARY TYPEWRITING****Two credits**

Mastery of the techniques of touch typewriting. Emphasis is placed on skill-building practices with proper techniques through motivating drills and timed writings. Learning to type simple problems on a production basis such as memorandums, personal communications, tabulations, business letters, outlines, manuscripts, and composing. Four hours each week. One hour lecture, three hours laboratory. Fee: \$15.

**BUS. ED. 108. INTERMEDIATE TYPEWRITING****Two credits**

Building typewriting competence by strengthening basic and problem skills. Developing higher degree of proficiency through speed and accuracy timed writings, and production typing problems, such as business letters with special features; special communication forms; technical papers and business reports; tables; business forms; and executive communications. Four hours each week. One hour lecture, three hours laboratory. Fee: \$15.

Prerequisite: Bus. Ed. 107, or approval of instructor.

**BUS. ED. 201. ADVANCED TYPEWRITING I****One credit**

Increased emphasis is placed on higher speed and accuracy. Measuring of production skill competencies. A series of simulated on-the-job experiences in which a minimum of direction and a maximum of realism are provided. Advanced skills applied to typing in General, Accounting, and Executive offices. Three hours laboratory. Fee: \$15.

Prerequisite: Bus. Ed. 108.

**BUS. ED. 202. ADVANCED TYPEWRITING II****One credit**

Continuation of speed and accuracy development and reinforcement. Independent specialized production typing, with high degree of speed and accuracy on simulated on-the-job experience: Technical, Professional (Medical, Legal, Scientific) and Government offices. Three hours laboratory. Fee: \$15.

Prerequisite: Bus. Ed. 201.

**BUS. ED. 205. OFFICE PROCEDURES AND BUSINESS MACHINES****Four credits**

A study of technical procedures in typical business and professional offices; analysis of personal and professional requirements for office personnel; a general survey and comparison of major office machines classifications; administrative machine procurement problems and procedures; operation and use of office machines and equipment. Eight hours a week. Two hours lecture, six hours laboratory. Fee: \$15.

Prerequisite: Approval of instructor.

**BUS. ED. 207. ADVANCED SHORTHAND I****Three credits**

Mastering of Gregg Shorthand Diamond Jubilee Series theory. Progressive speed forcing and speed building, reinforcement and control dictation given. Building transcription quality and speed. Five hours each week. Two hours lecture, three hours laboratory.

Prerequisite: Bus. Ed. 106.

**BUS. ED. 208. ADVANCED SHORTHAND II****Three credits**

Development of shorthand facility and transcription competency when working with highly specialized material. The specialized areas of dictation and transcription are: Medical, Legal, Technical and Scientific, International Trade, and Congressional. Emphasis is placed on specialized terminology. Five hours each week. Two hours lecture, three hours laboratory.

Prerequisite: Bus. Ed. 207.

**BUS. ED. 243. PRINCIPLES AND METHODS OF BUSINESS EDUCATION****Three credits**

Principles of business education; business curricula in secondary schools; psychology of skill-building; objectives, standards, content; tests and measurements, and techniques of instruction in business education courses; observation; student teaching demonstrations. Offered every other year.

Prerequisite: Approval of instructor.



## Engineering

Professor Nejib, chairperson; Emeritus Professor Thomas; Associate Professors Hostler, Orehotsky; Assistant Professors Koch, Parker; Instructor Moran; Adjunct Professors Kaby, Osadchy, Toole.

Wilkes College offers four-year programs in electrical engineering and in materials engineering leading to the Bachelor of Science degree. In addition the first two years of programs in civil engineering, chemical engineering, and mechanical engineering are offered, and upon completion of the second year, students in any of these programs may transfer to the junior year at other engineering schools.

The student chapters of the Institute of Electronic and Electrical Engineers (I.E.E.E.) and the American Society for Metals (A.S.M.), in conjunction with the department, periodically offer seminars on subjects of a timely nature, and attendance at these seminars is also mandatory for completion of degree requirements.

Students transferring into the engineering programs from other institutions may be required to take examinations prior to being given advanced credit in certain course areas.

### FRESHMAN AND SOPHOMORE YEARS COMMON TO ALL ENGINEERING PROGRAMS

FIRST SEMESTER		SECOND SEMESTER	
Math. 111	4	Math. 112	4
Chem. 201	4	Chem. 202	4
Eng. 101	3	Phys. 201	4
Engi. 111	3	Eng. 102	3
P.E. 105	1	P.E. 106	1
P.E. 100	0	P.E. 100	0
	15		16
THIRD SEMESTER		FOURTH SEMESTER	
Math. 211	4	Math. 212	4
Phys. 202	4	Phys. 203	3
E.E. 211	3	E.E. 212*	3
Ma.E. 211	3	Ma.E. 212*	3
Non-Technical Elective*	3	Non-Technical Elective*	3
	17		16

\*Students wishing to transfer after two years to pursue studies in Chemical, Civil, Mechanical, etc. engineering should select these courses to fit their programs.

## Major in Electrical Engineering

Third and fourth year requirements leading to a B.S. degree.

FIFTH SEMESTER		SIXTH SEMESTER	
E.E. 251	4	E.E. 252	4
E.E. 331	4	E.E. 272	3
Non-Technical Elective	3	E.E. 332	4
E.E. Elective	6	E.E. Elective	3
	17	Non-Technical Elective	3
			17
SEVENTH SEMESTER		EIGHTH SEMESTER	
E.E. 335	3	E.E. 320	4
E.E. 381	3	E.E. 382	3
E.E. 397	1	E.E. 397	1
E.E. Elective	6	E.E. Elective <sup>1</sup>	3
Non-Technical Elective	3	Non-Technical Elective	5
	16		16

Total minimum credits for B.S. degree — 130.

## Major in Materials Engineering

Third and fourth year requirements leading to a B.S. degree.

FIFTH SEMESTER		SIXTH SEMESTER	
E.E. 251	4	Ma.E. Electives <sup>2</sup>	6
Speech 101	3	E.E. 272	3
Non-Technical Electives	3	Chem. 212	4
	16	Non-Technical Electives	3
			16
SEVENTH SEMESTER		EIGHTH SEMESTER	
Ma.E. Electives <sup>2</sup>	6	Ma.E. Electives <sup>2</sup>	6
Ma.E. Electives <sup>3</sup>	3-4	Ma.E. 397	1
Ma.E. 381	2	Non-Technical Electives	9
Ma.E. 397	1		
Chem. 221	4		
	16-17		16

Total minimum credits for B.S. degree — 127

<sup>1</sup> E.E. Electives may be chosen from any mathematics, science or engineering courses numbered 200 or above, with at least nine of the credits being in Engineering.

<sup>2</sup> Ma.E. electives to be taken from a sequence scheduled by the department for alternate years.

<sup>3</sup> Students desiring an electronic materials option should select E.E. 381, others may elect from any mathematics, science or engineering courses numbered 200 or above.



**ENGL. 111. INTRODUCTION TO ENGINEERING** **Three credits**  
The engineering profession and its various disciplines. Methods of solving engineering problems. Use of the slide-rule and mathematical tables. Sketching and Drawing. Schematic diagrams and printed circuit layouts. Crystal models. Three hours a week.

**ENGL. 200. FORTRAN PROGRAMMING** **Three credits**  
Fortran IV programming, including advanced techniques with problems geared to the individual interests of students. Fee: \$20.

### Electrical Engineering

**E.E. 211-212. CIRCUIT THEORY I, II** **Three credits each semester**  
Analysis of simple circuit models. Kirchoff's Law. V-I characteristics of circuit elements. Circuit Theorems. Forced and natural components of response. Three phase systems. Fourier series. Laplace transforms and their inverse. Transfer functions and the role of their poles and zeroes. Terminal behavior of linear networks. Impulse response. Sinusoidal steady state. Feedback systems and stability. Computer utilization for solutions.

E.E. 211 Three hours lecture per week.

E.E. 212 Two hours lecture and two hours discussion per week.

Prerequisite: Math. 112.

**E.E. 251-252. ELECTRONIC CIRCUITS I, II** **Four credits each semester**  
The development of operating principles and terminal characteristics of electronic devices, particularly semiconductor devices. Amplifiers, oscillators, and rectifiers at audio and radio frequencies. Modulation and Detection. Design considerations for small and large signals. The design of complete systems using such subsystems. Three hours lecture and one three-hour laboratory per week. Fee: \$20 per semester.

Prerequisite: E.E. 211.

**E.E. 271. PHYSICAL ELECTRONICS** **Three credits**  
Structure of the solid state, wave mechanics, statistics, band theory of solids, semiconductors and semiconductor electronics. Emission (thermionic, field and photo-), photoconductivity and luminescence. Diodes, transistors and other devices. Dielectrics, non-linear optics, piezoelectrics, ferroelectrics, ferro and ferrimagnetism. Three hours class a week.

**E.E. 272. SOLID STATE DEVICES** **Three credits**  
Transistor processes and types, properties of semiconductors, junction characteristics and theory. Junction transistor characteristics and theory. High-current effects and low frequency feedback effects. Low frequency and high frequency hybrid parameters. Three hours class a week.

Prerequisite: Phys. 203.

**E.E. 311. LOGIC AND SWITCHING CIRCUITS** **Three credits**  
Application of Boolean algebra to the design of combinational logic nets; minimization procedures. Analysis and synthesis of sequential switching circuits clocked and asynchronous operation. Effects of microelectronic technology on logic design optimization. Fault masking by redundancy techniques. Three hours class a week.

**E.E. 320. ELECTROMECHANICAL ENERGY CONVERSION** **Four credits**  
Principles of electromagnetic and electrostatic energy conversion and their application to develop a unified treatment of electric machinery. Idealized machines and transformers. Engineering considerations applied to d.c. and a.c. machines. Three hours class and one three-hour laboratory a week. Fee: \$20.

Prerequisite: E.E. 211 and Phys. 202.

**E.E. 331-332. ELECTROMAGNETIC FIELDS I, II** **Four credits each semester**  
Vector analysis. The concept of fields. Dielectric and Magnetic media. Fields in conductors. Electric and Magnetic circuit elements. Maxwell's equations and boundary condition problems in one, two and three dimensional space. Plane electromagnetic waves and power flow. Transmission lines. Three hours lecture and one three-hour laboratory per week. Fee: \$20 each semester.

**E.E. 335. ENERGY TRANSMISSION AND RADIATION** **Three credits.**  
Plane waves in various media; reflection and refraction, standing waves, wave-guides, transmission lines, antennas and radiation. Principles of electrodynamics. Three hours class a week.

Prerequisite: E.E. 331; Senior standing.

**E.E. 381-382. ADVANCED ENGINEERING LABORATORY I, II** **Three credits each semester**

The following areas of study and application are included in this laboratory: The fabrication and testing of semiconductor devices and integrated circuits; thin and thick film circuits; characteristic measurements of VHF and Micro-wave devices and circuits; antenna characteristics and pattern measurements; coherent optical waves generation and modulation. One hour lecture-discussion and six-hour laboratory a week each semester. Fee: \$30.

Prerequisite: Senior standing.

**E.E. 390. TOPICS IN ELECTRICAL ENGINEERING** **Three credits**  
Selected topics in the field of electrical engineering. These may include one or more of the following: information theory, signals and noise, communication systems, network synthesis, magnetic and non-linear circuits, cryogenics, electrodynamics, plasmas, telemetry, laser and semiconductor technology, digital and analog systems, etc. May be repeated for credit. Three hours lecture each week.

Prerequisite: Junior or Senior standing.

**E.E. 395-396 INDEPENDENT RESEARCH** **One to three credits**  
Independent study and research for advanced students in the field of the major under the direction of a staff member. A research paper at a level significantly beyond a term paper is required.

Prerequisite: Approval of department chairperson is required.

**E.E. 397. SEMINAR** **One to three credits**  
(Maximum of three credits per student)  
Presentations and discussions of selected topics.

Prerequisite: Senior standing, or by special permission.

### Materials Engineering

**MA.E. 211-212. MATERIALS SCIENCE I, II** **Three credits each semester**  
Introduction to the structure, properties and behavior of materials — metals, polymers and ceramics. Physical Metallurgy. Three hours lecture per week.

Prerequisite: Chem. 201.

**MA.E. 311-312. X-RAY DIFFRACTION I, II** **Three credits each semester**  
X-Rays and their properties. Crystallography. Directions and intensities of diffracted beams. Laue, Debye-Scherrer, Diffractometer, Rotating, Oscillating, Weissenberg and Precession Methods. Outline of crystal structure analysis. Two hours lecture and one three-hour laboratory per week. Fee: \$20 each semester.

Prerequisite: MA.E. 211, MA.E. 212.



**MA.E. 321-322. THERMODYNAMICS AND PHASE EQUILIBRIA** **Three credits each semester**

Fundamentals of thermodynamics and the thermodynamic approach to phase equilibria, the phase rule and polymorphism. Theory of alloy phases. Order-disorder phenomena. Binary and ternary phase diagrams and their applications in materials engineering. Three hours lecture per week.

Prerequisite: MA.E. 211, MA.E. 212.

**MA.E. 331. CRYSTALLINE ANISOTROPY** **Three credits**

Groundwork of crystal physics and transformation of second-rank tensors. Paramagnetic and Diamagnetic susceptibility. Electric Polarization. Stress, strain and thermal expansion. Elasticity and fourth-rank tensors. Matrices. Thermodynamics of equilibrium thermal conductivity, and thermoelectricity. Three hours lecture per week.

**MA.E. 332. ENGINEERING POLYMERS** **Three credits**

Introduction to high polymers as engineering materials and their mechanical, electrical and optical properties. Three hours lecture per week.

**MA.E. 342. MECHANICAL METALLURGY** **Three credits**

The mechanical properties of metals including: elasticity, plasticity, deformation of single crystal and polycrystalline metals, dislocation theory, fracture, internal friction, testing and forming. Three hours lecture per week.

**MA.E. 381-382. ADVANCED ENGINEERING LABORATORY I, II** **Two credits each semester**

The application of X-ray methods in Materials Engineering, X-ray spectrometers and spectrochemical analysis. Techniques for quantitative analysis. The Electron Probe and microanalysis. Techniques for quantitative analysis. Applications. Two three-hour lecture-laboratories per week. Fee: \$30 per semester.

Prerequisite: Chem. 212.

**MA.E.390. TOPICS IN MATERIALS ENGINEERING** **Three credits**

Selected topics in the field of materials engineering. These may include one or more of the following: X-Ray diffraction, structure analysis, phase equilibria, metallurgy, ceramics, physical, mechanical or electrical properties of materials. May be repeated for credit. Three hours lecture per week.

Prerequisite: Junior or Senior standing.

**MA.E. 395-396. INDEPENDENT RESEARCH** **One to three credits**

Independent study and research for advanced students in the field of the major under the direction of a staff member. A research paper at a level significantly beyond a term paper is required.

Prerequisite: Approval of department chairperson is required.

**MA.E. 397. SEMINAR (Maximum of three credits per student) One to three credits**

Presentations and discussion of selected topics.

Prerequisite: Senior standing, or by special permission.

**English**

Professor Kaska, chairperson; Professors Fiester, Rizzo; Associate Professors Gutin, R. Heaman, Terry; Assistant Professors Kinney, Powlick; Instructor Hardie; Adjunct Professors P. Heaman, Lipsky (spring), Lord, Pawlusch, Rubinstein.

The Department of English offers a variety of programs for students interested in language and the language arts: they may concentrate in literature, in writing, in linguistics, in speech, in communication studies, or in theater arts. These programs are broadly based in the values traditionally associated with humane learning, and prepare students for such diverse careers as teaching, law, government service, theater, communications, and business.

Students who major in English are required to take English 101 and 102 in their freshman year; and English 151, 253, and 254 in their sophomore year. They may choose concentrations as follows:

**Literature.** The concentration in literature requires 24 credit hours in advanced literature courses. These must include at least one course in a major writer, one course in either the novel or drama, two period courses in literature before 1900, and one seminar.

**Honors.** Qualified students who concentrate in literature may be invited to participate in an honors program which may lead to graduation with distinction in English. The program consists of a planned series of seminars and independent research in the junior and senior years, culminating in a thesis and a comprehensive examination.

**Writing.** The concentration in writing requires 12 credit hours in advanced literature courses; English 201, and nine additional credit hours in advanced writing courses; and the submission of a portfolio of the student's work.

**Linguistics.** The concentration in linguistics requires 12 credit hours in advanced literature and writing courses, and 12 in linguistics.

**Speech.** The concentration in speech requires 15 credit hours in advanced English courses and 15 in speech.

**Communication Studies.** The concentration in communication studies requires 15 credit hours in advanced English courses, and 15 in communication studies. Students are expected to work out a coherent program through close consultation with their adviser.



**Theater Arts.** The concentration in theater art requires 29 credit hours in Theater Arts courses, including 131, 210, 241, 330, 343, 352, and 380. It also requires 21 credit hours in advanced literature courses including 221, and any two of 321, 341, 374, and 384.

**Certification.** Students who seek certification as public school teachers must be especially careful in selecting courses to meet their professional needs. They are expected to arrange their programs in close consultation with their advisers.

Total minimum credits required for a B.A. degree — 121.

**ENG. 99. ENGLISH AS A SECOND LANGUAGE** No credit  
An introduction to English for non-native speakers.

**ENG. 100. WRITING WORKSHOP** Three credits  
A developmental course concentrating on the fundamentals of writing. Combines extensive practice in the writing of expository prose with systematic study of grammar and rhetoric.

**ENG. 101. COMPOSITION** Three credits  
Principles of exposition; collateral reading; writing of themes.

**ENG. 102. COMPOSITION** Three credits  
Principles of exposition continued; introduction to literature; writing of themes; research paper.  
Prerequisite: Eng. 101 or Eng. 100.

**ENG. 151. WESTERN WORLD LITERATURE** Three credits  
Study of western world literature to the beginning of the eighteenth century; lectures, quizzes, conferences.  
Prerequisite: Eng. 102, or equivalent in composition.

**ENG. 152. WESTERN WORLD LITERATURE** Three credits  
Survey of western world literature from the eighteenth century to the present.  
Prerequisite: Eng. 151.

**ENG. 201. ADVANCED COMPOSITION** Three credits  
A study of rhetorical types and strategies. Reading and intensive practice.  
Prerequisite: Eng. 102.

**ENG. 202. TECHNICAL WRITING** Three credits  
A study of the types and strategies of technical writing. Reading and intensive practice.  
Prerequisite: Eng. 102.

**ENG. 203. CREATIVE WRITING** Three credits  
Training in the selection and use of materials for writing the short story; attention is also given to some poetic forms and to the writing of short plays.  
Prerequisite: Eng. 102.

**ENG. 220. HISTORY OF THE ENGLISH LANGUAGE** Three credits  
Study of the origins of the English language and of the principal phenomena of later development.  
Prerequisite: Eng. 152 or 254.

**ENG. 222. INTRODUCTION TO LINGUISTICS** Three credits  
An introduction to the methods and materials of linguistic analysis.  
Prerequisite: Eng. 152 or 254 and 220 and consent of instructor.

**ENG. 225. COMPARATIVE GRAMMAR** Three credits  
A comparative and critical study of traditional and structural English grammar.  
Prerequisite: Eng. 152 or 254 and 220 or consent of instructor.

**ENG. 226. TRANSFORMATIONAL GRAMMAR** Three credits  
Intensive study of the principles of generative-transformational grammar and their applications in the analysis of English.  
Prerequisite: Eng. 152 or 254 and 220 or consent of instructor.

**ENG. 253. SURVEY OF ENGLISH LITERATURE** Three credits  
A study of the works and movements in English literature from Anglo-Saxon period through the eighteenth century.  
Prerequisite: Eng. 102.

**ENG. 254. SURVEY OF ENGLISH LITERATURE** Three credits  
A study of the works and movements in English literature from the Romantic movement to the present.  
Prerequisite: Eng. 253.

**ENG. 301. LITERARY CRITICISM** Three credits  
A study of literary theory and the techniques of analysis.  
Prerequisite: Eng. 152 or 254.

**ENG. 305. THE TEACHING OF ENGLISH** Three credits  
A study of the problems of teaching English in the secondary schools.

**ENG. 310. MEDIEVAL ENGLISH LITERATURE** Three credits  
A study of English literature to 1500, exclusive of Chaucer and the drama.  
Prerequisite: Eng. 152 or 254.

**ENG. 312. CHAUCER** Three credits  
Study of Chaucer's life and major works, including "The Canterbury Tales" and "Troilus and Criseyde".  
Prerequisite: Eng. 152 or 254.

**ENG. 320. TUDOR PROSE AND POETRY** Three credits  
Study of English non-dramatic literature from 1485 to 1603.  
Prerequisite: Eng. 152 or 254.

**ENG. 321. EARLY ENGLISH DRAMA** Three credits  
Study of the drama from the tenth century to 1642; reading of plays by pre-Elizabethan and Elizabethan dramatists exclusive of Shakespeare.  
Prerequisite: Eng. 152 or 254.

**ENG. 325. SHAKESPEARE** Three credits  
A study of selected plays; written reports on others not studied in class.  
Prerequisite: Eng. 152 or 254.

**ENG. 330. SEVENTEENTH CENTURY PROSE AND POETRY** Three credits  
A study of the non-dramatic literature of the period.  
Prerequisite: Eng. 152 or 254.

**ENG. 335. MILTON** Three credits  
A study of Milton's poetry and major prose.  
Prerequisite: Eng. 152 or 254.

**ENG. 341. RESTORATION & EIGHTEENTH CENTURY DRAMA** Three credits  
Study of the drama from 1600 to 1780.  
Prerequisite: Eng. 152 or 254.



**ENG. 343. THE EIGHTEENTH CENTURY** **Three credits**  
Study of the chief poets and essayists of the eighteenth century.  
Prerequisite: Eng. 152 or 254.

**ENG. 345. EARLY ENGLISH NOVEL** **Three credits**  
Study of English prose fiction of the sixteenth and seventeenth centuries; rise of the novel to the close of the eighteenth century.  
Prerequisite: Eng. 152 or 254.

**ENG. 354. ROMANTIC PROSE AND POETRY** **Three credits**  
Study of Blake, Wordsworth, Coleridge, Shelley, Keats, and Byron, with related prose writers of the Romantic Period.  
Prerequisite: Eng. 152 or 254.

**ENG. 360. VICTORIAN PROSE AND POETRY** **Three credits**  
Readings in Tennyson, Browning, Arnold, and other significant writers of the Victorian Age.  
Prerequisite: Eng. 152 or 254.

**ENG. 366. LATER ENGLISH NOVEL** **Three credits**  
Study of the major novelists of the nineteenth and early twentieth centuries.  
Prerequisite: Eng. 152 or 254.

**ENG. 370. MODERN BRITISH POETRY** **Three credits**  
Study of major British poetry of the twentieth century.  
Prerequisite: Eng. 152 or 254.

**ENG. 372. MODERN NOVEL** **Three credits**  
Study of the major novels of the twentieth century.  
Prerequisite: Eng. 152 or 254.

**ENG. 374. MODERN DRAMA** **Three credits**  
Study of important dramatists, European and American, from the time of Ibsen.  
Prerequisite: Eng. 152 or 254.

**ENG. 381. AMERICAN LITERATURE I** **Three credits**  
A study of American literature to the Civil War.  
Prerequisite: Eng. 152 or 254.

**ENG. 382. AMERICAN LITERATURE II** **Three credits**  
A study of American literature from the Civil War to the present time.  
Prerequisite: Eng. 152 or 254.

**ENG. 383. AMERICAN NOVEL** **Three credits**  
A study of the American novel from its beginning to the present.  
Prerequisite: Eng. 152 or 254.

**ENG. 384. AMERICAN DRAMA** **Three credits**  
A study of the American drama from the colonial period to the present.  
Prerequisite: Eng. 152 or 254.

**ENG. 386. MODERN AMERICAN POETRY** **Three credits**  
Study of major movements and representative figures in modern American poetry.  
Prerequisite: Eng. 152 or 254.

**ENG. 391-392. PROJECTS IN WRITING** **One to three credits**  
Independent projects in writing for advanced students.  
Prerequisites: Six credits in advanced writing, and permission of Department.

**ENG. 395-396. INDEPENDENT RESEARCH** **One to three credits**  
Independent study and research for advanced students in the field of the major under the direction of a staff member. A research paper at a level significantly beyond a term paper is required.

Prerequisite: Approval of department chairperson is required.

**ENG. 397. SEMINAR (Maximum of three credits per student)** **One to three credits**  
Presentations and discussions of selected topics.

Prerequisite: Approval of department chairperson is required.

**ENG. 398. TOPICS** **Three credits**  
A study of special topics in English and American literature.  
Prerequisite: Eng. 152 or 254.

### Speech

**SPEECH 101. FUNDAMENTALS OF SPEECH** **Three credits**  
Introduction to the theory and practice of public address; preparation and delivery of short speeches.

**SPEECH 102. VOICE AND DICTION** **Three credits**  
A study of voice production and articulation; analysis of regional speech differences and standards.  
Prerequisite: Speech 101.

**SPEECH 105. ARGUMENTATION AND DEBATE** **Three credits**  
Training in the fundamentals of argumentation and debate. Practice in gathering and organizing evidence and supporting materials.  
Prerequisite: Speech 101.

**SPEECH 106. ORAL INTERPRETATION** **Three credits**  
An approach to literature that combines analysis with interpretative oral performance.  
Prerequisite: Speech 101.

**SPEECH 201. ADVANCED PUBLIC SPEAKING** **Three credits**  
Study of rhetorical strategies and models of speech composition; preparation and presentation of specific forms of public address.  
Prerequisite: Speech 101.

**SPEECH 202. BUSINESS AND PROFESSIONAL SPEAKING** **Three credits**  
A study of the needs and problems of business and professional speaking; preparations and delivery of short speeches; interview and conference techniques.  
Prerequisite: Speech 101.

**SPEECH 211. RHETORIC** **Three credits**  
A study of the foundations and development of rhetorical theory.  
Prerequisite: Speech 101.

**SPEECH 212. PERSUASION** **Three credits**  
A study of the theories and techniques of persuasion.  
Prerequisite: Speech 101.

**SPEECH 298. TOPICS** **One to three credits**  
A study of special topics in speech.  
Prerequisite: Permission of department.

**SPEECH 395-396. INDEPENDENT RESEARCH** **One to three credits**  
Independent study of select subjects or problems in speech and speech communication.  
Prerequisite: Permission of department.



### Communication Studies

**COMMUNICATION 101. PRINCIPLES OF COMMUNICATION Three credits**

A study of the theory and process of communication.

**COMMUNICATION 105. INTERPERSONAL COMMUNICATION Three credits**

A study of theories and models of interpersonal communication.

**COMMUNICATION 106. GROUP COMMUNICATION Three credits**

A study of the principles, methods, and types of small-group communication and its role in the democratic process.

**COMMUNICATION 201. MASS MEDIA Three credits**

A study of the mass media and their role in contemporary society.

**COMMUNICATION 211. JOURNALISM: BASIC NEWS WRITING Three credits**

A study of the basic techniques and responsibilities of gathering and writing news.

Prerequisite: Eng. 102.

**COMMUNICATION 212. JOURNALISM: EDITING AND ADVANCED NEWS WRITING Three credits**

A study of specialized reporting and introduction to the principles of news editing.

Prerequisite: Communication 211.

**COMMUNICATION 240. INTRODUCTION TO BROADCASTING Three credits**

The history, technology, law and business of the broadcast industry, with experience in the organization and operation of a radio station, particularly the creation and presentation of radio programming. Lecture and laboratory.

**COMMUNICATION 252. INTERNSHIP Three credits**

A supervised program of work and study. Students are assigned to a member of the Pennsylvania Newspaper Publishers Association; a licensed radio or television news staff; or a public relations office or firm. They will work out a schedule of fifteen hours of professional work per week, and spend two additional hours each week in conference with their instructor and others in the program.

Prerequisite: Communication 212 or Communication 240.

**COMMUNICATION 298. TOPICS Three credits**

A study of special topics in communication.

Prerequisite: Permission of Department.

**COMMUNICATION 395-396. INDEPENDENT RESEARCH One to three credits**

Independent research of select subjects of problems in communication.

Prerequisite: Permission of Department.

**COMMUNICATION 397. SEMINAR One to three credits**

Presentation and discussion of selected topics.

Prerequisite: Permission of Department.

### Environmental Sciences

Assistant Professor Berryman, chairperson; Assistant Professor Stevenson; Instructor Redmond.

The required course work presents fundamentals and advanced concepts in both environmental and environmentally related disciplines. Most department courses have associated laboratory work and independent projects. Within each degree program students select an area of concentration related to the career they envision.

In addition to the general college liberal arts core program (56 credits, including E.S. 201-102, P.S. 101-102, Soc. and Anth. 101, and either Math. 105-106, or Math. 111-112), the B.A. degree in Environmental Sciences requires 20 credits concentrated in the E.S. department (E.S. 211, 232, 251, 282, 382, and 397), 18 credits concentrated in one area of the social sciences, 12 specified social science credits (Soc. 215 and 230, P.S. 207 and 214), 10 science credits (including Chem. 105), and 12 credits of free electives.

In addition to the general college liberal arts core program (56 credits, including E.S. 201-102 and either Math. 105-106 or Math. 111-112), the B.S. degree in Environmental Sciences requires 26 credits concentrated in the E.S. department (E.S. 211, 232, 251, 282, 330, 381, 382, and 397), 18 credits concentrated in one area of the sciences, 16 specified science credits (Chem. 201-202, Bio. 201 and 208, and a three-credit biology elective), and 12 credits of free electives.

The B.A. and B.S. degree programs in Environmental Sciences each require the successful completion of 128 credits (with a minimum grade point average). Experience has shown that some students may require pre-college level courses as an aid toward the successful completion of their college work. When this need is indicated, students are encouraged to elect these remedial courses. Credits earned in these courses are considered as free electives.

**ENV. SCI. 101. INTRODUCTORY EARTH SCIENCE Three credits**

A summary of the physical environments natural features and processes. Topics surveyed include geology, meteorology, oceanography, and astronomy. A correlated laboratory program is designed to familiarize the student with natural phenomena and the underlying physical processes. (E.S. 101-102 may be used as a sequence for partial fulfillment of the science/mathematics segment of the college core program.) Two hours lecture and two hours laboratory. Fee: \$15.



**ENV. SCI. 102. ENVIRONMENTAL AWARENESS** **Three credits**

A summary of the effects of human activity on the ecosystem. Topics surveyed include air pollution, water pollution, and solid waste disposal. It includes examples and historical background of important environmental problems with reappraisal of past failures, survey of present problems and potential effects of present trends, and the precautionary measures to be taken against future mistakes. Two hours lecture and two hours laboratory. Fee: \$15.

No prerequisite.

**ENV. SCI. 201. PRINCIPLES OF EARTH SCIENCE** **Four credits**

Thorough grounding in the geophysical principles underlying astronomy, meteorology, geology, and oceanography. Intended primarily for science majors. Three hours lecture and two hours laboratory. Fee: \$15.

Prerequisite: Not open to students with credit in Env. Sci. 101.

**ENV. SCI. 211. GEOLOGY** **Four credits**

A course in physical and environmental geology dealing with materials and surface features of the earth with special emphasis on the interactions of man and his physical environment. Regional problems of geologic interest are considered and field trips to nearby geologic features are included. Three hours lecture and two hours laboratory. Fee: \$20.

Prerequisite: Env. Sci. 201 or consent of instructor.

**ENV. SCI. 232. HYDROLOGY** **Three credits**

The physical elements and processes which constitute the hydrologic cycle are examined with emphasis on the relationships of land and water. Special topics include floods and flood control, water resources, water uses, and water pollution problems. Two hours lecture and two hours laboratory. Fee: \$20.

Prerequisite: Env. Sci. 201 or consent of instructor.

**ENV. SCI. 251. METEOROLOGY** **Four credits**

The physical elements and processes which comprise weather and climate are examined along with their distribution in space and time and the specific relationships between weather, climate, and human activity. The fundamentals of weather observations, weather map analysis, and the statistical approach to climatic records are developed in a correlated laboratory program. Three hours lecture and two hours laboratory. Fee: \$20.

Prerequisite: Env. Sci. 201 or consent of instructor.

**ENV. SCI. 282. SPACE SCIENCE** **Three credits**

A survey of contemporary knowledge of astronomy from the fringe of the earth's atmosphere to the farthest galaxies. A correlated laboratory program is designed to familiarize the student with celestial coordinates and the physical processes underlying the interpretation of astronomical observations. Two hours lecture and two hours laboratory. Fee: \$20.

Prerequisite: Env. Sci. 201 or consent of instructor.

**ENV. SCI. 330. ENVIRONMENTAL QUALITY MEASUREMENTS** **Three credits**

A thorough grounding in the instrumentation and techniques employed in sampling and measuring environmental quality parameters in the field and in the laboratory. Two three-hour laboratory periods. Fee: \$20.

Prerequisite: Chem. 202.

**ENV. SCI. 350. ENVIRONMENTAL DEVELOPMENT** **Three credits**

Presents a framework through which environmental planning and management techniques are applied to metropolitan areas. Emphasis is placed on preservation of air, water, and land resources within developing and redeveloping metropolitan environments. Three hours lecture.

Prerequisite: Consent of instructor.

**ENV. SCI. 370. AIR QUALITY** **Three credits**

A study of atmospheric pollutants, their sources and effects. Lecture topics include primary and secondary pollutants, stability and plume behavior, monitoring, standards, and inadvertent weather and climate modification. Three hours lecture.

Prerequisite: Env. Sci. 251 or consent of instructor.

**ENV. SCI. 381. POPULATION AND COMMUNITY ECOLOGY** **Three credits**

A study of populations and communities as living systems integrated with their environment. Field investigations of local plant and animal assemblages will constitute a major portion of the course. Two hours lecture and one three-hour laboratory. Fee: \$20.

Prerequisite: Bio. 208M.

**ENV. SCI. 382. ENVIRONMENTAL GEOMORPHOLOGY** **Three credits**

A study of the human role in changing the surface of the earth with emphasis on the utilization of geologic and hydrologic information in land-use planning. Remote sensing techniques and field investigations will constitute a major portion of the course. Two hours lecture and one three-hour laboratory. Fee: \$20.

Prerequisite: Env. Sci. 211 and 232.

**ENV. SCI. 395-396. INDEPENDENT RESEARCH** **One to three credits**

Independent study and research under the direction of a departmental faculty member on the environmental aspects of a problem in the field of the major. A research paper at a level significantly beyond a term paper is required.

Prerequisite: Approval of department chairperson and Senior standing.

**ENV. SCI. 397. SEMINAR** **One to three credits**

Weekly seminars and discussion on specific problems arising from the human impact on the natural environment. This extended program includes faculty and guest lectures establishing necessary background and student participation.

Prerequisite: Senior standing.

**ENV. SCI. 401-402. TOPICS IN ENVIRONMENTAL SCIENCES I AND II** **One to three credits each**

Selected topics covering a variety of geophysical, geochemical and geological processes and their applications. These may include one or more of the following: dynamic geology, geochemistry of rocks and soils, aquatic geochemistry, trace substances and health, astrophysics, environmental management, climatic changes.

Prerequisite: Senior standing.

## Foreign Languages and Literatures

Associate Professor Seitz, chairperson; Associate Professors Belic, Marban, Assistant Professors Arden, Karpnich; Instructor Eaton.

A major in any of the modern foreign languages consists of twenty-four credit hours in advanced language courses beyond the 102 course. These twenty-four credits must normally include 206, 301-302 and, for students seeking public school certification, 390.

### French

**FR. 101. ELEMENTARY FRENCH** **Three credits**

Introduction to French grammar; practice in reading, writing, and speaking the language. Students presenting two or more units from high school in French will not be granted credit for this course.



**FR. 102. ELEMENTARY FRENCH** **Three credits**  
Continuation of Fr. 101. Students presenting two or more units from high school in French will not be granted credit for this course.

Prerequisite: Fr. 101, or the equivalent.

**FR. 203. INTERMEDIATE FRENCH** **Three credits**  
Review of grammar; practice in oral and written French; selected readings of modern French prose.

Prerequisite: Fr. 102, or the equivalent.

**FR. 204. INTERMEDIATE FRENCH** **Three credits**  
Introduction to French civilization; practice in oral and written French.

Prerequisite: Fr. 203, or the equivalent.

**FR. 205. TECHNICAL FRENCH** **Three credits**  
Intensive practice in translating. A course designed for students who wish to be able to read material in French in their particular fields of interest.

Prerequisite: Fr. 203, or the equivalent.

**FR. 206. FRENCH CONVERSATION** **Three credits**  
Intensive practice in the spoken language, with emphasis on idiomatic usage. Use of records and language laboratory to acquire fluency in speaking French.

Prerequisite: Fr. 204, or the equivalent.

**FR. 251. MASTERPIECES OF FRENCH LITERATURE IN TRANSLATION** **Three credits**  
Problems of dramatic and novelistic form. Comparative analysis of plays by Corneille, Anouilh, Racine, Sartre, Moliere, Ionesco. The idea of the novel in France as seen in such writers as Mme. de Lafayette, de Laclos, Balzac, Stendhal, Gide, Proust, Robbe-Grillet.

May not be taken concurrently with or after completion of Fr. 301-302.

No prerequisite.

**FR. 252. MASTERPIECES OF FRENCH LITERATURE IN TRANSLATION** **Three credits**  
French thought from Renaissance Humanism to Twentieth Century Existentialism; analysis of such writers as Montaigne, Pascal, Voltaire, Rousseau, Camus.

May not be taken concurrently with or after completion of Fr. 301-302.

No prerequisite.

**FR. 261. FEMININE PERSPECTIVES IN FRENCH LITERATURE** **Three credits**  
French readings in translation exploring woman's situation in a male-dominated society. Feminist criticism replaces traditional literary criticism.

No prerequisite.

**FR. 301-302. SURVEY OF FRENCH LITERATURE** **Three credits each semester**  
A survey of the evolution of French literature from the Middle Ages to the present, with stress on general ideas, literary genres, and outstanding writers of each century. Reading of representative selections from different periods of French literature.

Prerequisite: Fr. 204, or the equivalent.

**FR. 305. FRENCH LITERATURE OF THE EIGHTEENTH CENTURY** **Three credits**  
Study of the literature and thought in the eighteenth century, with special emphasis on Montesquieu, Diderot, Voltaire, and Rousseau.

Prerequisite: Fr. 301-302, or the equivalent.

**FR. 306. NINETEENTH CENTURY FRENCH LITERATURE** **Three credits**  
The Romantic Movement: a study of the revolt against the classic tradition leading to the triumph of the Romantic School, with emphasis on Chateaubriand, Constant, Lamartine, Hugo, Vigny, Musset, Balzac and Stendhal.

Prerequisite: Fr. 301-302, or approval of department chairperson.

**FR. 307. NINETEENTH CENTURY FRENCH LITERATURE** **Three credits**  
Naturalism and Symbolism: a study of the rise of naturalism and symbolism in the second half of the century with emphasis on Baudelaire, Zola, Flaubert, Leconte de Lisle, Verlaine and Rimbaud.

Prerequisite: Fr. 301-302, or approval of department chairperson.

**FR. 308. TWENTIETH CENTURY FRENCH LITERATURE** **Three credits**  
Study of representative works of the major genres, with particular attention to Surrealism, Existentialism, the Theater of the Absurd and the New Novel.

Prerequisite: Fr. 301-302 or equivalent.

**FR. 350. ADVANCED FRENCH GRAMMAR** **Three credits**  
Intensive, in-depth review of grammar with emphasis on intricacies tending to cause persistent difficulties. Reading, writing and oral exercises significantly above Fr. 204 with goal of superior accuracy and proficiency. For majors and others with sufficient preparation.

Prerequisite: Fr. 204, or the equivalent.

**FR. 390. FOREIGN LANGUAGE METHODOLOGY** **Three credits**  
An opportunity for French language majors to synthesize their four years of study by examining language as a cultural device. Class sessions are supplemented by activities such as student teaching and language laboratory supervision.

**FR. 395-396. INDEPENDENT RESEARCH** **One to three credits**  
Independent study and research for advanced students in the field of the major under the direction of a staff member. A research paper at a level significantly beyond a term paper is required.

Prerequisite: Approval of department chairperson is required.

**FR. 397. SEMINAR (Maximum of three credits per student)** **One to three credits**  
Presentations and discussions of selected topics.

Prerequisite: Approval of department chairperson is required.

**FR. 398. TOPICS** **Three credits**  
A study of topics of special interest not extensively treated in regularly offered courses.

## German

**GER. 101. ELEMENTARY GERMAN** **Three credits**  
Introduction to German grammar; practice in reading, writing, and speaking the language. Students presenting two or more units from high school in German will not be granted credit for this course.



**GER. 102. ELEMENTARY GERMAN****Three credits**

Continuation of Ger. 101. Reading of easy prose and poetry. Some stress on German culture, life, and customs. Students presenting two or more units from high school in German will not be granted credit for this course.

Prerequisite: Ger. 101, or equivalent.

**GER. 203. INTERMEDIATE GERMAN****Three credits**

Emphasis on difficult grammatical construction and idioms. Reading of prose; practice in speaking and writing German.

Prerequisite: Ger. 102, or equivalent.

**GER. 204. INTERMEDIATE GERMAN****Three credits**

Continuation of Ger. 203. Rapid reading of German works representative of German life and history; practice in writing and speaking German.

Prerequisite: Ger. 203, or equivalent.

**GER. 205. SCIENTIFIC GERMAN****Three credits**

Reading of selections from scientific German.

Prerequisite: Ger. 203, or equivalent.

**GER. 206. GERMAN CONVERSATION****Three credits**

Emphasis on speaking, with drill in the colloquial vocabulary. Use of records and language laboratory to acquire fluency in speaking German.

Prerequisite: Ger. 204, or equivalent.

**GER. 251. MASTERPIECES OF GERMAN LITERATURE IN TRANSLATION: NOVEL, DRAMA****Three credits**

The development of the novel and novelle in German literature as seen through representative writers such as Grimmelshausen, Goethe, Holderlin, Fontana, Storm, Mann, Hesse and Kafka.

Dramatic form in analysis. Representative plays from Gryphius to Weiss including plays by Lessing, Schiller, Kleist, Buchner, Hofmannsthal, Hartmann, Kaiser, Brecht, Hochhuth and Weiss.

**GER. 252. MASTERPIECES OF GERMAN LITERATURE IN TRANSLATION: THOUGHT AND CRITICISM****Three credits**

The change in man's view of his world from Humanism to the present, reflected in drama, critical essays, short philosophical writings and satire.

Analysis of social criticism through satire, dramas and essays of writers such as Saaz, Luther, Sachs, Lessing, Schiller, Heine, Buchner and Brecht. Short philosophical essays from Kant to Nietzsche.

**GER. 301-302. SURVEY OF GERMAN LITERATURE****Three credits each semester**

A survey of the literature of the important periods from the beginning to 1932.

Prerequisite: Ger. 204, or equivalent.

**GER. 304. THE AGE OF ENLIGHTENMENT****Three credits**

The development of German literature in the eighteenth century with emphasis on the works and theories of Lessing.

Prerequisite: Ger. 301-302, or approval of department chairperson.

**GER. 305. GOETHE AND SCHILLER****Three credits**

Study of major works (drama, poetry, essay, novel) of Goethe and Schiller.

Prerequisite: Ger. 301-302 or equivalent.

**GER. 306. THE ROMANTIC MOVEMENT****Three credits**

Study of the revolt against the classical tradition from "Sturm und Drang" and the Schlegels to Holderlin, Novalis, and other representatives of the romantic school.

Prerequisite: Ger. 301-302 or equivalent.

**GER. 307. NINETEENTH CENTURY GERMAN LITERATURE****Three credits**

Study of major literary works from late Romanticism through Realism.

Prerequisite: Ger. 301-302 or equivalent.

**GER. 308. TWENTIETH CENTURY LITERATURE****Three credits**

The study of the development of German Literature from the turn of the century until the present.

Prerequisite: Ger. 301-302, or approval of department chairperson.

**GER. 350. ADVANCED GERMAN GRAMMAR****Three credits**

Intensive, in-depth review of grammar with emphasis on intricacies tending to cause persistent difficulties. Reading, writing and oral exercises significantly above Ger. 204 with goal of superior accuracy and proficiency. For majors and others with sufficient preparation.

Prerequisite: Ger. 204, or the equivalent.

**GER. 390. FOREIGN LANGUAGE METHODOLOGY****Three credits**

An opportunity for German language majors to synthesize their four years of study by examining language as a cultural device. Class sessions are supplemented by activities such as student teaching and language laboratory supervision.

Prerequisite: Senior standing, permission of department chairperson.

**GER. 395-396. INDEPENDENT RESEARCH****One to three credits**

Independent study and research for advanced students in the field of the major under the direction of a staff member. A research paper at a level significantly beyond a term paper is required.

Prerequisite: Approval of department chairperson is required.

**GER. 397. SEMINAR (Maximum of three credits per student)****One to three credits**

Presentations and discussions of selected topics.

Prerequisite: Approval of department chairperson is required.

**GER. 398. TOPICS****Three credits**

A study of topics of special interest not extensively treated in regularly offered courses.

**Spanish****SP. 101. ELEMENTARY SPANISH****Three credits**

Introduction to Spanish grammar; practice in reading, writing, and speaking the language. Students presenting two or more units from high school in Spanish will not be granted credit for this course.

**SP. 102. ELEMENTARY SPANISH****Three credits**

Continuation of Sp. 101. Students presenting two or more units from high school in Spanish will not be granted credit for this course.

Prerequisite: Sp. 101, or equivalent.

**SP. 203. INTERMEDIATE SPANISH****Three credits**

Review of grammar; practice in oral and written Spanish; selected readings from modern Spanish prose.

Prerequisite: Sp. 102, or equivalent.



**SP. 204. INTERMEDIATE SPANISH** **Three credits**  
Introduction to Spanish civilization; practice in oral and written Spanish.  
Prerequisite: Sp. 203, or equivalent.

**SP. 205. COMMERCIAL SPANISH** **Three credits**  
The study of Spanish as it pertains to economic relations between the Spanish-speaking countries and the United States. Special emphasis on the writing of business letters.  
Prerequisite: Sp. 203, or equivalent.

**SP. 206. SPANISH CONVERSATION** **Three credits**  
Intensive practice in the spoken language, with emphasis on idiomatic usage. Use of records and language laboratory to acquire fluency in speaking Spanish.  
Prerequisite: Sp. 204, or equivalent.

**SP. 208. SPANISH-AMERICAN CULTURE** **Three credits**  
The cultural, economic, and political development of the Spanish-American countries.  
Prerequisite: Sp. 203, or equivalent.

**SP. 301-302. SURVEY OF SPANISH LITERATURE** **Three credits each semester**  
A survey of the evolution of Spanish literature from the Middle Ages to the present, with stress on general ideas, literary genres, and outstanding writers of each century. Reading of representative selections from different periods of Spanish literature.  
Prerequisite: Sp. 204, or equivalent.

**SP. 303. THE GOLDEN AGE OF SPANISH LITERATURE** **Three credits**  
Study of the great authors of the sixteenth and seventeenth centuries.  
Prerequisite: Sp. 301-302, or equivalent.

**SP. 304. NINETEENTH CENTURY SPANISH LITERATURE** **Three credits**  
Study of major literary works of the period, with emphasis upon Romanticism and Realism.  
Prerequisite: Sp. 301-302 or equivalent.

**SP. 306. TWENTIETH CENTURY SPANISH LITERATURE** **Three credits**  
Study of the development of Spanish literature from 1898 to the present.  
Prerequisite: Sp. 301-302 or equivalent.

**SP. 307. CERVANTES AND DON QUIXOTE** **Three credits**  
Study of the works of Cervantes with special emphasis on Don Quixote.  
Prerequisite: Sp. 301 or equivalent.

**SP. 308. SURVEY OF SPANISH-AMERICAN LITERATURE** **Three credits**  
Study of the evolution of Spanish-American literature from the discovery to the beginnings of the Mexican revolution. Readings from outstanding works from different periods and regions.  
Prerequisite: Sp. 204 or equivalent.

**SP. 309. SURVEY OF SPANISH-AMERICAN LITERATURE** **Three credits**  
Study of the evolution of Spanish-American literature from the Mexican revolution to the present. Readings from works representing principal modern movements and regional tendencies.  
Prerequisite: Sp. 204, 208 or equivalent.

**SP. 350. ADVANCED SPANISH GRAMMAR** **Three credits**  
General grammatical review; systematic, in-depth study of points of grammar that generally tend to cause persistent difficulties for the student; intensive reading, writing and oral exercises significantly above intermediate college level language courses.  
Prerequisite: Sp. 204, or equivalent.

**SP. 390. FOREIGN LANGUAGE METHODOLOGY** **Three credits**  
An opportunity for Spanish language majors to synthesize their four years of study by examining language as a cultural device. Class sessions are supplemented by activities such as student teaching and language laboratory supervision.  
Prerequisite: Senior standing, permission of department chairperson.

**SP. 396-396. INDEPENDENT RESEARCH** **One to three credits**  
Independent study and research for advanced students in the field of the major under the direction of a staff member. A research paper at a level significantly beyond a term paper is required.  
Prerequisite: Approval of department chairperson is required.

**SP. 397. SEMINAR (Maximum of three credits per student)** **One to three credits**  
Presentations and discussions of selected topics.  
Prerequisite: Approval of department chairperson is required.

**SP. 398. TOPICS** **Three credits**  
A study of topics of special interest not extensively treated in regularly offered courses.

### Russian

**RUS. 101. ELEMENTARY RUSSIAN** **Three credits**  
Basic systematic introduction to the grammatical essentials of Russian; practice in reading, writing, and speaking the language.

**RUS. 102. ELEMENTARY RUSSIAN** **Three credits**  
Continuation of Rus. 101. Graded elementary readings depicting the culture, life, and customs of the Russian people.  
Prerequisite: Rus. 101, or equivalent.

**RUS. 203. INTERMEDIATE RUSSIAN** **Three credits**  
A review of basic grammar followed by emphasis on advanced grammatical structure. Reading of selected prose, directed standard-situation conversation, and composition of Russian.  
Prerequisite: Rus. 102, or equivalent.

**RUS. 204. INTERMEDIATE RUSSIAN** **Three credits**  
Continuation of Rus. 203. Stress on conversational and written Russian to provide the student with confidence for self-expression and a basic active vocabulary. Practice in topical readings.  
Prerequisite: Rus. 203, or equivalent.

### History

Professor Leach, chairperson; Professors Cox, Rodechko; Associate Professors Berlat-sky, Shao; Assistant Professors Berg, Meyers.

Students who major in history are required to take History 101 and 102 in the freshman year, History 207 and 208 in the sophomore year, and 18 additional credit hours in advanced history courses. Advanced courses taken must include a minimum of six hours each in American and non-American topics.

Total minimum credits required for a B.A. degree — 121.



**HIST. 101-102. WORLD CIVILIZATION** Three credits each semester  
This course is designed as a survey of all the basic cultures of the world. The major portion of the course will be devoted to the development of western civilization. Attention will also be given to the part played by America in world history, especially during the expansion of Europe and in the twentieth century.

**HIST. 207-208. AMERICAN HISTORY** Three credits each semester  
A general survey of American History from Colonial times to the present.

**HIST. 313-314. HISTORY OF SCIENCE** Three credits each semester  
The development of science and technology from earliest times to 1800, and from 1800 to the present.

**HIST. 315. ANCIENT HISTORY: NEAR EAST** Three credits  
The birth of civilization in Mesopotamia and Egypt. Babylonian, Persian and Judaic backgrounds of western civilization. Attention will also be paid to certain lesser civilizations, with emphasis on the role of archaeology.

**HIST. 316. ANCIENT HISTORY: CLASSICAL WORLD** Three credits  
The direct Greco-Roman antecedents for western civilization will be developed, beginning with Mycenae, through Homer, the Golden Age, Hellenistic world, and the rise and fall of Rome. Emphasis will be on the cultural contributions of each group and period to our present world.

**HIST. 321-322. AMERICAN SOCIAL AND INTELLECTUAL HISTORY** Three credits each semester  
A study of social and intellectual developments in the United States from the colonial period to the present time. During the first semester emphasis will be placed on the influence of the American environment during the colonial period and of expansion and sectional disputes in the federal period upon society and upon religious, economic, and political thought. During the second semester the influence of industrialization, the rise of nationalism and the emergence of the United States as a World Power will be emphasized.

**HIST. 323-324. AMERICAN ECONOMIC HISTORY** Three credits each semester  
The evolution of the American economy from colonial dependency to modern industrial maturity. Emphasis will be placed upon the transformation of an agrarian-commercial economy to an urban-industrial economy which exercises a dominant influence in world affairs.

**HIST. 325. AMERICAN ETHNIC HISTORY** Three credits  
A study of the institutions and problems that have characterized various immigrant, black, and Indian communities from colonial times to the present.

**HIST. 326. URBAN HISTORY** Three credits  
A survey of the origins and development of the modern city. Primary emphasis is given to the evolution of the city in America and its influence on American society and culture. Reference is made to the cities of modern Europe and Asia primarily for comparative purposes.

**HIST. 327-328. HISTORY OF THE FOREIGN POLICY OF THE UNITED STATES** Three credits each semester  
A study of the evolution of the several policies that give direction to the relations of the United States with other nations.

**HIST. 331. COLONIAL AMERICA** Three credits  
Discovery, exploration and settlement; development of social, political, religious and intellectual institutions; independence and political reorganization.

**HIST. 332. THE NATIONAL PERIOD** Three credits  
A study of the political and economic history of the United States from 1783 to 1865. Special attention will be given to the evolution of sectional differences and the culmination of these differences in intersectional warfare.

**HIST. 333. THE AGE OF BIG BUSINESS, 1865-1914** Three credits  
A study of the political and economic history of the United States from 1865 to 1914. Special attention will be paid to the period of congressional dominance and the restoration of presidential power at the turn of the century; the economic, social and political consequences of the industrial revolution; and the rise of urban America.

**HIST. 334. TWENTIETH CENTURY AMERICA** Three credits  
The emergence of the United States as an industrial, urban, world power and the corresponding development of its political, economic, social, religious, and intellectual institutions.

**HIST. 341-342. HISTORY OF GREAT BRITAIN AND THE BRITISH EMPIRE AND COMMONWEALTH** Three credits each semester  
A study of British history from the Neolithic period to present times. The first semester will cover social, economic, and political developments to 1783, including expansion overseas. The second semester will cover the consequences of the industrial revolution and the evolution of the Empire into the Commonwealth.

**HIST. 347-348. HISTORY OF RUSSIA** Three credits each semester  
A study of the political, social, and intellectual history of Russia.

**HIST. 351. MEDIEVAL EUROPE** Three credits  
Consideration will be given to political, economic and cultural institutions and activities, and intellectual development in Medieval Europe to the early Renaissance.

**HIST. 352. THE RENAISSANCE AND REFORMATION** Three credits  
Within the political and economic framework of the period, study will be made of the culture of the Renaissance, the religious reforms and conflicts resulting from the crisis in the sixteenth century.

**HIST. 353-354. EARLY MODERN EUROPE, 1648-1815** Three credits each semester  
Topics include the absolutism of Louis XIV, the growth of Brandenburg-Prussia, the French Revolution and French Empire, the economic forces of mercantilism and the early Industrial Revolution. The growth of science and the Enlightenment will receive careful attention.

**HIST. 355. EUROPE IN THE NINETEENTH CENTURY** Three credits  
A study of the political, social, and cultural development of Europe from the Congress of Vienna to World War I.

**HIST. 356. EUROPE IN THE TWENTIETH CENTURY** Three credits  
Against a background of the internal and international developments of the leading powers, the class will study the origins and results of the two World Wars.

**HIST. 361-362. HISTORY OF THE FAR EAST** Three credits each semester  
A study of the history of the civilizations developed in India, China, and Japan with emphasis on their inter-relations and distinctive characteristics and on their transformation in response to the penetration of western civilization from the sixteenth century onward. Some attention will be given to similar developments and changes among the countries of Southeast Asia. Fall semester: to c. 1760. Spring semester: 1760 to present.

**HIST. 363. HISTORY OF MODERN CHINA** Three credits  
A study of Chinese history since 1840 with special emphasis on social, political, economic, and intellectual developments.



**HIST. 364. DIPLOMATIC HISTORY OF THE FAR EAST** Three credits  
A study of the relationship of the states of the Far East with one another and the West in the nineteenth and twentieth centuries.

**HIST. 367. MODERN SOUTH ASIA** Three credits  
A study of the political, social and economic development of the Indian sub-continent since 1500.

**HIST. 381-382. HISTORY OF LATIN AMERICA** Three credits each semester  
First semester: A survey of Latin American History from ancient times to 1820. Second semester: Latin America since 1820.

**HIST. 391. HISTORIOGRAPHY AND RESEARCH** Three credits  
An introduction to historical research and writing. The writings and ideas of major historians of the past and present are examined. The student is exposed to research methods, particularly in the area of primary sources, and to the construction and criticism of the historical monograph.

Prerequisite: Approval of instructor.

**HIST. 395-396. INDEPENDENT RESEARCH** One to three credits  
Independent study and research for advanced students in the field of the major under the direction of a staff member. A research paper at a level significantly beyond a term paper is required.

Prerequisite: Approval of department chairperson.

**HIST. 398. TOPICS** Three credits  
Special topics in history. This course will be offered from time to time when interest and demand justify it.

**HIST. 497. SEMINAR** One to three credits  
(Maximum of three credits per student)

Presentations and discussions of selected topics.

Prerequisite: Approval of instructor is required.

## Mathematics and Computer Science

Professor Wong, chairperson; Associate Professors Earl, Merrill, Sours, T. Richards, Tillman; Assistant Professors DeCosmo, Koch, Parker, Salsburg.

### Computer Science

A program of study leading to a B.A. or B.S. degree with a major in computer science is administered by the Department of Mathematics and Computer Science. It is designed to prepare students for graduate studies in computer science or for careers in the computing and data processing field.

Since the program is application-oriented, all students are strongly advised to acquire competence, through attainment of a double major or election of a cluster of well-chosen electives, in an area that lends itself to meaningful computer applications. The B.A. option is intended for those who lean toward the management and social sciences

while the B.S. option allows for greater concentration of electives in the engineering and physical sciences.

With the approval of the department, a student may earn credits in a maximum of five courses in mathematics or computer science by passing special challenge examinations in them. Interested students may obtain further details and application forms from the department chairperson.

#### Common requirements for the B.A. and B.S. degrees: credit hours

- |  |    |
|--|----|
| (1) The general core requirements listed on page 47, except the science/mathematics area which is specified below. | 41 |
| (2) Comp. Sci. 123, 124, 223 or 224, 227, 322  | 15 |
| (3) Math. 111-112, 202 and 211   | 15 |

#### Additional requirements for the B.A. degree: credit hours

- |  |    |
|--|----|
| (4A) Any three courses, including a two-semester sequence, in Biology, Chemistry, Environmental Sciences, or Physics.                    | 9  |
| (5A) Any four courses in Computer Science or Mathematics numbered above 200, including at least two among: Comp. Sci. 262, 321, and 324. | 12 |
| (6A) Free electives  | 33 |

#### Additional requirements for the B.S. degree:

- |  |    |
|--|----|
| (4S) Phys. 201 and a two-semester sequence in Biology, Chemistry, Environmental Sciences or Physics courses numbered above 200                                       | 11 |
| or   |    |
| Phys. 201-202 and at least three credits in Biology, Chemistry, Engineering, Environmental Sciences, or Physics courses numbered above 200, Phil. 350, or Phil. 352. |    |

- |   |    |
|---|----|
| (5S) Any five courses in Computer Science or Mathematics numbered above 200, including at least two among: Comp. Sci. 320, 323, 326, and 328. | 15 |
| (6S) Free electives   | 30 |

#### Minimum total credit requirements for the Computer Science major:

- |   |     |
|---|-----|
| B.A. (1) + (2) + (3) + (4A) + (5A) + (6A) . . . . . | 125 |
| B.S. (1) + (2) + (3) + (4S) + (5S) + (6S) . . . . . | 127 |



**COMP. SCI. 122. BASIC PROGRAMMING****One credit**

Introduction to computer programming using the BASIC language. A maximum of three credits will be allowed for this course and Math. 102. Fee: \$10.

Offered every fall semester.

**COMP. SCI. 123. FORTRAN PROGRAMMING (same as Engi. 200)****Three credits**

Introduction to computer programming using the FORTRAN IV language. The computer is used to solve problems arising in engineering, natural and social sciences. Fee: \$20. Offered every fall, spring, and summer.

**COMP. SCI. 124. COBOL PROGRAMMING****Three credits**

Introduction to computer programming using the American National Standard Common Business Oriented Language. The computer is used to solve problems commonly found in a business environment. Fee: \$20. Offered every fall, spring and summer.

**COMP. SCI. 223. ADVANCED PROGRAMMING: FORTRAN****Three credits**

A study of advanced programming techniques using FORTRAN IV. Topics include advanced data types, program optimization, and the use of various storage devices. Fee: \$20.

Prerequisite: Comp. Sci. 123 / Engi. 200.

Offered in every spring semester.

**COMP. SCI. 224. ADVANCED COBOL AND FILE MANAGEMENT****Three credits**

A study of advanced programming techniques using ANS COBOL. Topics include efficiency techniques, modular programming, table searching, indexed, direct and relative file techniques. Fee: \$20.

Prerequisite: Comp. Sci. 124.

Offered in every spring and summer.

**COMP. SCI. 227. DATA STRUCTURES****Three credits**

A study of computer data structures. Topics include lists, trees, graphs, storage allocation, file structure and information storage and retrieval.

Prerequisite: Comp. Sci. 223 or Comp. sci. 224.

Offered in every fall semester.

**COMP. SCI. 262. OPERATIONS RESEARCH (same as Math. 262)****Three credits**

Mathematical modeling of and solution algorithms for optimization problems of the following types: Linear Programming (including duality and sensitivity analysis); Transportation, transshipment and assignment problems; Network models (including shortest route, critical path, and maximal flow problems); Dynamic Programming.

Prerequisite: Some elementary knowledge of matrices.

**COMP. SCI. 320. LOGIC AND SWITCHING CIRCUITS (same as E.E. 311)****Three credits**

Application of Boolean algebra to the design of combinational logic nets; minimization procedures. Analysis and synthesis of sequential switching circuits clocked and asynchronous operation. Effects of microelectronic technology on logic design optimization. Fault masking by redundancy techniques. Three hours class a week.

Offered in the spring semester of even years.

**COMP. SCI. 321. SIMULATION AND DATA ANALYSIS****Three credits**

Methods of handling large data bases including statistical analysis and computer simulations. The emphasis will be upon discrete simulation models with a discussion of relevant computer languages, GPSS, GASP, SIMSCRIPT and others.

Prerequisite: Comp. Sci. 223 or Comp. Sci. 224.

Offered in the fall semester of even years.

**COMP. SCI. 322. ASSEMBLY LANGUAGE****Three credits**

Assembly language programming including basic techniques and algorithms. This course discusses the purpose and structure of an operating system and related software as well as an introduction to basic computing concepts, structure and operation. Fee: \$20. Prerequisite: Comp. Sci. 223.

Offered in every spring semester.

**COMP. SCI. 323. FORMAL LANGUAGES & AUTOMATA THEORY****Three credits**

This course formalizes many topics encountered in previous computing courses. Topics include alphabets, languages, grammars, finite automata, regular expressions and type 3 grammars, context-free languages, push-down automata.

Prerequisite: Math. 202.

Offered in the fall of even years.

**COMP. SCI. 324. SYSTEMS ANALYSIS****Three credits**

A study of the design and implementation of large computer projects. Special emphasis is placed on applications to business systems.

Prerequisite: Comp. Sci. 224 and 227.

Offered in the fall semester of odd years.

**COMP. SCI. 325. DATA BASE MANAGEMENT****Three credits**

Practical experience in solving a large-scale computer problem including determination of data requirements, appropriate data organization, data manipulation procedures, implementation, testing and documentation.

Prerequisite: Comp. Sci. 324.

Offered in the spring semester of even years.

**COMP. SCI. 326. OPERATING SYSTEM PRINCIPLES****Three credits**

The study of the principles of computer operating systems including sequential and concurrent processes, processor and store management, scheduling algorithms, and resource protection.

Prerequisite: Comp. Sci. 227.

Offered in the fall semester of odd years.

**COMP. SCI. 327. COMPILER DESIGN****Three credits**

A study of compiler design including language definition, syntactic analysis, lexical analysis, storage allocation, error detection and recovery, code generation and optimization problems.

Prerequisite: Comp. Sci. 227 and Comp. Sci. 323.

Offered in the spring semester of odd years.

**COMP. SCI. 328. ANALYSIS OF ALGORITHMS****Three credits**

Theoretical analysis of various algorithms. Topics include sorting, searching, selection, matrix multiplication and multiplication of real numbers.

Prerequisite: Comp. Sci. 227.

Offered in the fall semester of even years.

**COMP. SCI. 364. NUMERICAL ANALYSIS (Same as Math. 364)****Three credits**

Numerical methods of differentiation, integration, solution of equations and of differential equations with emphasis on problems that lend themselves to solution on computers.

Prerequisite: Comp. Sci. 123 and Math. 211 or permission of instructor.

Offered in every spring semester.

**COMP. SCI. 198/298/398/498. TOPICS IN COMPUTER SCIENCE****Variable credit**

Study of one or more special topics in computer science. May be repeated for credit.

Prerequisite: Varies with topics studied.

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### Mathematics

The Department of Mathematics & Computer Science offers courses of study leading to the B.A., B.S., M.S. degrees and, in cooperation with the Education Department, the M.S. in Education with a concentration in Mathematics. A combined five-year B.S.-M.S. degree program in mathematics is also available. It is described in the Special Degree and Non-Degree Program Section. Descriptions of graduate programs are contained in a separate graduate bulletin.

The baccalaureate programs are designed to provide a firm background for graduate studies in pure and applied mathematics, for careers in industry, the computer field, governmental service, and secondary or elementary school teaching.

In recent years, the mathematical sciences have played an ever-expanding role not only in the physical sciences, but also in the social and natural sciences as well. The study of mathematics is often not an end in itself. The mathematics degree requirements at Wilkes are sufficiently flexible to allow a student to have a large number of free electives which enable him to take all courses required of another major. By combining the study of mathematics with properly chosen courses in other fields, a student in either the B.A. or the B.S. program will be able to obtain excellent preparation for graduate or professional study leading to careers in actuarial science, economics, business and management, law, medicine, physical and engineering sciences, and many interdisciplinary fields. Many professional schools particularly welcome applicants with a strong undergraduate mathematics background.

The B.A. degree is intended for those who wish to elect more humanities and social science courses while the B.S. degree allows for greater concentration of physical and engineering science electives. Students may satisfy the certification requirements for secondary or elementary school teaching in either program.

With the approval of the department, a student may earn credits in a maximum of five mathematics or computer science courses by passing special challenge examinations in them. Interested students may obtain further details and application forms from the department chairperson.

Common requirements for the B.A. and B.S. degrees:		credit hours
(1)	The general core requirements listed on page 47, except the science/mathematics area which is specified below.	41
(2)	Math. 111-112, 202, 211, 212, 311, 334	30
(3)	One of Math. 314, 342, or 413	3

Additional requirements for the B.A. degree:		credit hours
(4A)	Any three courses, including a two-semester sequence, in Biology, Chemistry, Environmental Sciences, or Physics.	9
(5A)	Any two courses in Mathematics or Computer Science numbered above 200	6
(6A)	Free electives	36

Additional requirements for the B.S. degree:		credit hours
(4S)	Phys. 201 and a two-semester sequence in Biology, Chemistry, Environmental Sciences or Physics courses numbered above 200	11
	or	
	Phys. 201-202 and at least three credits in Biology, Chemistry, Engineering, Environmental Sciences, or Physics courses numbered above 200, Phil. 350, or Phil. 352.	
(5S)	Any four courses in Mathematics or Computer Science (the mathematics courses must be numbered above 200)	12
(6S)	Any two courses in Biology, Chemistry, Electrical Engineering, Mathematics, Materials Engineering, or Physics numbered above 200, or in Computer Science.	6
(7S)	Free electives	24

#### Minimum total credit requirements for the Mathematics major:

B.A.	(1) + (2) + (3) + (4A) + (5A) + (6A) . . . . .	125
B.S.	(1) + (2) + (3) + (4S) + (5S) + (6S) + (7S) . . . . .	127

**MATH. 100. PRE-CALCULUS MATHEMATICS** Four credits  
A remedial course in advanced algebra and trigonometry designed to prepare students for calculus. Content of this course should normally be studied in secondary school.  
Prerequisite: Two years of secondary school mathematics in algebra and geometry.  
Offered every fall, spring, and summer.

**MATH. 101. FUNDAMENTALS OF MATHEMATICS I** Three credits  
Basic quantitative and analytic techniques and concepts designed to help the student understand science, technology, and human institutions as they bear on the individual citizen. Topics include: graphical presentation of data, exponential growth and decay, probability and statistics, error analysis, introduction to computing, vectors and matrices, and linear programming. Not open to students with credits in Math. 103 or 104.  
Offered every fall and summer.

**MATH. 102. FUNDAMENTALS OF MATHEMATICS II** Three credits  
A continuation of Math. 101. Not open to students with credits in Math. 103-104.  
Prerequisite: Math. 101.  
Offered every spring and summer.



**MATH. 103. MATHEMATICS FOR ELEMENTARY SCHOOL TEACHERS I****Three credits**

A study of the theory of arithmetic, structure of the number systems, and other topics relevant to the teaching of mathematics in elementary schools. Not open to students with credits in Math. 101 or 102.

Offered every fall and summer.

**MATH. 104. MATHEMATICS FOR ELEMENTARY SCHOOL TEACHERS II****Three credits**

A continuation of Math. 103. Not open to students with credits in Math. 101 or 102.

Prerequisite: Math. 103.

Offered every spring and summer.

**MATH. 105. INTRODUCTORY CALCULUS I****Four credits**

Intended primarily for students of social and natural sciences. Topics include: review of algebra, limit, differentiation, integration, sequences and series, partial differentiation, differential equations, and probability. Not open to students with credits in Math. 111 or 112.

Prerequisite: Geometry, Algebra II, and some knowledge of Trigonometry.

Offered every fall, spring, and summer.

**MATH. 106. INTRODUCTORY CALCULUS II****Four credits**

A continuation of Math. 105. Not open to students with credits in Math. 111 or 112.

Prerequisite: Math. 105.

Offered every fall, spring, and summer.

**MATH. 111. CALCULUS I****Four credits**

Calculus of functions of one variable. Topics include: functions, limits and continuity, differentiation, integration and their applications, infinite sequences and series. Not open to students with credits in Math. 105 or 106.

Prerequisite: Math. 100 or at least three years of secondary school mathematics including Geometry, Algebra II, and topics in Trigonometry.

Offered every fall and summer.

**MATH. 112. CALCULUS II****Four credits**

A continuation of Math. 111. Not open to students with credit in Math. 106.

**MATH. 150. ELEMENTARY STATISTICS****Three credits**

This course covers the elementary statistical concepts, with emphasis on ideas and techniques rather than on proof of theorems. Applications to the management, social and natural sciences will be stressed. Major topics include probability, random variables, sampling, point estimation, interval estimation, tests of hypotheses, regression, and correlation. Not open to mathematics majors or students with credit in Math. 351.

Prerequisite: Two years of high school algebra.

**MATH. 202. SET THEORY AND LOGIC****Three credits**

Designed to provide the logical and set theoretical prerequisites for the upper-level courses in analysis, algebra, computer science and topology. Topics include: informal logic and propositional calculus, sets, relations, functions, axiom of choice and its equivalents, cardinal and ordinal numbers. Three hours lecture and one hour problem-discussion per week.

Prerequisite: Math. 112, or consent of department chairperson.

**MATH. 211. INTRODUCTION TO LINEAR ALGEBRA AND DIFFERENTIAL EQUATIONS****Four credits**

Topics include: Matrices; determinants; vector spaces; linear transformations; eigenvalues and eigenvectors; first order, linear higher order, and systems of differential equations.

Prerequisite: Math. 112.

**MATH. 212. MULTIVARIABLE CALCULUS****Four credits**

Differential and integral calculus of real and vector valued functions. Topics include continuity; partial differentiation; implicit functions; Taylor's Theorem; gradient; curl; line, surface and multiple integrals, inverse functions; theorems of Green and Stokes.

Prerequisite: Math. 112.

**MATH. 232. ABSTRACT ALGEBRA FOR ELEMENTARY SCHOOL TEACHERS****Three credits**

A study of basic concepts of abstract algebra for elementary school teachers. Not open to mathematics or computer science majors or those with credit in Math. 331.

Prerequisite: Math. 104, or consent of instructor.

**MATH. 243. GEOMETRY FOR ELEMENTARY SCHOOL TEACHERS****Three credits**

A study of topics in informal geometry and measurements for elementary school teachers. Not open to mathematics or computer science majors or those with credit in Math. 343.

Prerequisite: Math. 104, or consent of instructor.

**MATH. 262. OPERATIONS RESEARCH (Same as Comp. Sci. 262)****Three credits**

Mathematical modeling of and solution algorithms for optimization problems of the following types: Linear Programming (including duality and sensitivity analysis); Transportation, transshipment and assignment problems; Network models (including shortest route, critical path, and maximal flow problems); Dynamic Programming.

Prerequisite: Some elementary knowledge of matrices.

**MATH. 311. FUNCTIONS OF A REAL VARIABLE****Four credits**

A rigorous study of the topology of the real line, limits, continuity, differentiation, integration, and series of functions.

Prerequisite: Math. 202 or consent of instructor.

**MATH. 314. FUNCTIONS OF A COMPLEX VARIABLE****Three credits**

Complex functions, limit, continuity, analytic functions, power series, contour integration, Laurent expansion, singularities and residues.

Prerequisite: Math. 211 or consent of instructor.

**MATH. 331. INTRODUCTION TO ABSTRACT ALGEBRA I****Four credits**

A study of elementary number theory, groups, rings, and fields.

Prerequisite: Math. 202 or consent of instructor.

**MATH. 334. LINEAR ALGEBRA****Three credits**

Vector spaces, linear transformations, matrices, determinants, bilinear and quadratic forms, matrix polynomials.

Prerequisite: Math. 211 or consent of instructor.

**MATH. 342. INTRODUCTION TO TOPOLOGY****Three credits**

Metric spaces, topological spaces, countability and separation axioms, compactness, connectedness, product spaces.

Prerequisite: Math. 311 or consent of instructor.



**MATH. 343. INTRODUCTION TO GEOMETRY** **Three credits**  
A study of selected topics from Euclidean geometry, affine geometry, projective geometry, and convexity.

Prerequisite: A year of calculus or consent of instructor.

**MATH. 351-352. PROBABILITY AND MATHEMATICAL STATISTICS I AND II** **Three credits each semester**  
Random variables, probability distributions, expectation and limit theorems, estimation, statistical hypotheses testing, confidence intervals.

Prerequisite: Math. 106 or 112 or consent of instructor.

**MATH. 361-362. INTRODUCTION TO APPLIED MATHEMATICS I AND II** **Three credits each semester**  
Intended for physical science and engineering students. Topics to be selected from: vector integral and differential calculus, power series, differential equations, Fourier series, matrices, determinants, and eigenvalue problems.

Prerequisite: Math. 212.

**MATH. 364. NUMERICAL ANALYSIS (Same as Comp. Sci. 364)** **Three credits**  
Numerical methods of differentiation, integration, solutions of equations and of differential equations with emphasis on problems that lend themselves to solution using computers.

Prerequisite: Math. 211 and Comp. Sci. 123 or consent of instructor.

**MATH. 397. SEMINAR** **One to three credits**  
Presentation and discussion of selected topics.

Prerequisite: Approval of department chairperson.

**MATH. 413. FUNCTIONS OF SEVERAL VARIABLES** **Three credits**  
A modern treatment of calculus of functions of several real variables. Topics include: Euclidean spaces, differentiation, integration on manifolds leading to the classical theorems of Green and Stokes.

Prerequisites: Math. 311 and 334.

**MATH. 432. INTRODUCTION TO ABSTRACT ALGEBRA II** **Three credits**  
A continuation of Math. 331. Polynomial rings, ideals, field extensions and Galois Theory.

Prerequisite: Math. 331.

**MATH. 470. READING COURSE** **One to three credits**  
Individual study of special topics under the supervision of a faculty member. Designed for students who have completed a substantial amount of course work in mathematics. May be repeated for credit.

Prerequisite: Senior standing and consent of department chairperson.

**MATH. 198/298/398/498. TOPICS IN MATHEMATICS** **Variable credits**  
A study of topics of special interest. It may be a continuation and intensive study of topics begun in the upper-level courses in analysis, topology, algebra, and probability. May be repeated for credit.

Prerequisite: Varies with topics studied.

Additional 500-level graduate courses in mathematics are open to qualified mathematics majors. See the graduate bulletin for complete listing.

## Music and Music Education

Professor Gasbarro, chairperson; Associate Professor Chapline; Assistant Professors Fall, Garber, Haberkorn, Santos, Veremeychik; Adjunct Professor Liva.

Students who major in music or music education are required to complete the following programs of study. Those who desire teacher certification will pursue the B.S. degree program.

There is a fee of \$15 per semester for all music and music education majors, and fees for private instruction are in addition to the regular tuition charge.

FIRST SEMESTER			SECOND SEMESTER		
	B.A.	B.S.		B.A.	B.S.
Core Elective	3	—	Eng. 102	3	3
Eng. 101	3	3	Core Electives	6	3 <sup>2</sup>
Core Elective	3	3 <sup>2</sup>	Mus. 106	5	5
Mus. 105	5	5	Mus. Ed. 102 or 104	—	2
Mus. Ed. 101 or 103	—	2	Hist. 102	—	3
Hist. 101	—	3	Applied Mus. <sup>1</sup>	1	1
Applied Mus. <sup>1</sup>	1	1	Mus. 121, 125, 131	1/2	1/2
Mus. 121, 125, 131	1/2	1/2	P.E. 100	0	0
P.E. 100	0	0	P.E. 106	1	1
P.E. 105	1	1			
	16 1/2	18 1/2		16 1/2	18 1/2
THIRD SEMESTER			FOURTH SEMESTER		
	B.A.	B.S.		B.A.	B.S.
Core Electives	9	3 <sup>2</sup>	Core Electives	9	3 <sup>2</sup>
Mus. Ed. 101 or 103	—	2	Mus. Ed. 102 or 104	—	2
Mus. 107	5	5	Mus. 108	5	5
Mus. 109	—	3	Mus. 110	—	3
Applied Mus. <sup>1</sup>	1	1	Applied Mus. <sup>1</sup>	1	1
Psy. 101	—	3	Psy. 102	—	3
Mus. 121, 125, 131	1/2	1/2	Mus. 121, 125, 131	1/2	1/2
P.E. 100	0	0	P.E. 100	0	0
	15 1/2	17 1/2		15 1/2	17 1/2

<sup>1</sup>Private instruction.

<sup>2</sup>A Core Elective to be taken from one sequence in Humanities or Science / Mathematics or Social Science.



FIFTH SEMESTER			SIXTH SEMESTER		
	B.A.	B.S.		B.A.	B.S.
Core Electives	12	3 <sup>2</sup>	Core Electives	12	3 <sup>2</sup>
Ed. 201	—	3	Ed. 202	—	3
Mus. Ed. 105 or 106	—	2	Mus. Ed. 105 or 106	—	2
Mus. Ed. 209	—	2	Mus. Ed. 210	—	2
Mus. Ed. 121	—	2	Mus. Ed. 123	—	2
Mus. Ed. 201	—	2	Mus. Ed. 202	—	2
Applied Mus. <sup>1</sup>	2	1	Applied Mus. <sup>1</sup>	2	1
Mus. 121, 125, 131	½	½	Mus. 121, 125, 131	½	½
Mus. 111	—	2	Mus. 112	—	2
Mus. 109	3	—	Mus. 110	3	—
	17½	17½		17½	17½

SEVENTH SEMESTER			EIGHTH SEMESTER		
	B.A.	B.S.		B.A.	B.S.
Applied Mus. <sup>3</sup>	2	1	Applied Mus. <sup>3</sup>	2	1
Mus. 215	2	2	Mus. 216	2	2
Mus. 217 <sup>3</sup>	2	—	Mus. 218 <sup>3</sup>	3	—
Mus. 121, 125, 131	½	½	Mus. 121, 125, 131	½	½
Electives	9	—	Electives	9	—
Mus. Ed. 127	—	2	Mus. Ed. 128	—	2
Mus. Ed. 122 or 125	—	2	Mus. Ed. 122 or 125	—	2
Mus. Ed. 340 or Elec.	—	6-8	Mus. Ed. 340 or Elec.	—	6-8
Mus. 113 or Elective	—	2-3	Mus. 114 or Elective	—	2-3
	15½	15½-18½		16½	15½-18½

Total minimum credits required for a B.A. degree — 131.

Total minimum credits required for a B.S. degree — 140.

## Music

### APPLIED MUSIC

Individual and group instruction are offered at all levels of difficulty to students in piano, pipe organ, voice, and orchestral and band instruments. The student receives a series of fourteen lessons a semester. A performing examination before the music faculty is necessary if credit is to be obtained for such study. Music majors are required to attend a series of weekly performances provided by personnel of the department.

Students who are not music majors may receive one credit each semester for voice or instrumental study. No performing examination is necessary if credit is not desired by the student.

The ability, interest, and progress of students intending to major in music will be evaluated at the end of the sophomore year by the music faculty. Students will be advised before the opening of the following semester if the faculty does not recommend a continuation of the music major.

<sup>1</sup>Private instruction.

<sup>2</sup>A Core Elective to be taken from one sequence in Humanities or Science / Mathematics or Social Science.

<sup>3</sup>Mus. 217-218. This sequence is scheduled by the department and initiates in the fall of even-numbered years.

### MUS. 101. INTRODUCTION TO THE MATERIALS AND LITERATURE OF MUSIC I

Three credits

The materials of music and their interrelationships. Illustrations are derived from literature of all periods for the purpose of developing understanding and enjoyment through perceptive listening.

### MUS. 102. INTRODUCTION TO THE MATERIALS AND LITERATURE OF MUSIC II

Three credits

A survey of performance literature extending from the Baroque period to the present. Directed listening to illustrations of various media, forms, and styles characteristic of each period for the purpose of stimulating critical judgment in the listener.

Prerequisite: Mus. 101.

### MUS. 105-106-107-108. THEORY OF MUSIC

Five credits each course

The study of the theory of music is centered upon three main principles:

1. The recognition of intervals and meter through dictation.
2. The structure of chords and chord progressions through keyboard harmony.
3. The writing of music through exercises in harmonic and contrapuntal techniques.

The first two semesters of theory include ear training, two hours; solfeggio, two hours; harmony, one hour. The third and fourth semesters include ear training, one hour; solfeggio, one hour; harmony, three hours.

There is no prerequisite for Mus. 105. Students may be admitted to Mus. 106, 107, and 108 by examination.

### MUS. 109. HISTORY OF MUSIC I

Three credits

A detailed study of the history of music from the beginning of civilization to the seventeenth century.

### MUS. 110. HISTORY OF MUSIC II

Three credits

A continuation of Mus. 109, beginning with J. S. Bach and tracing musical development to the present day. Twentieth century music will be emphasized in the final weeks of study.

### MUS. 111-112. PIANO CLASS 1 AND 2

Two credits each semester

Class instruction in piano. The classes will be divided into suitable groups according to proficiency. This course is required for all music education majors who are not enrolled in applied music in piano.

No prerequisite.

### MUS. 113-114. PIANO CLASS 3 AND 4

Two credits each semester

Advanced class instruction in piano. This course is a continuation of the required course for all music education majors who are not enrolled in applied music in piano.

Prerequisite: Mus. 112.

### MUS. 121. BAND

One-half credit each semester

The band offers the student a varied program for concerts and for various athletic events. Students desiring to participate in the band should consult with the director.

All instrumental music education and music majors are required to participate in the band each semester.

### MUS. 125. CHORUS

One-half credit each semester

The chorus offers the student a complete range of sacred and secular choral music. Students desiring to participate in the chorus should consult with the director.

All music education and music majors studying voice or piano are required to participate in the chorus each semester.



**MUS. 131. ORCHESTRA** **One-half credit each semester**  
Participation in the Northeastern Philharmonic gives the student experience in the complete range of symphonic literature. Students desiring to participate in the orchestra should consult with the department chairperson.

**MUS. 215. INSTRUMENTATION** **Two credits**  
The instruments of the modern symphonic orchestra, their capabilities and limitations. The technique of scoring for small instrumental combinations; transposition and clef manipulation.

Prerequisite: Mus. 108, or approval of department chairperson.

**MUS. 216. ORCHESTRA AND BAND ARRANGING** **Two credits**  
Scoring for the large orchestra or the modern symphonic band. The student may select his field of concentration.

Prerequisite: Mus. 215.

**MUS. 217. ANALYSIS** **Two credits**  
The technique of composition as disclosed by melodic, harmonic, and structural analysis of music in varied styles and from diverse periods.

Prerequisite: Mus. 108, or equivalent as demonstrated by an examination.

**MUS. 218. COUNTERPOINT** **Three credits**  
A study of the sixteenth century art of contrapuntal writing.

Prerequisite: Mus. 108.

**MUS. 395-396. INDEPENDENT RESEARCH** **One to three credits**  
Independent study and research for advanced students in the field of the major under the direction of a staff member. A research paper at a level significantly beyond a term paper is required.

Prerequisite: Approval of department chairperson is required.

**MUS. 397. SEMINAR** **One to three credits**  
(Maximum of three credits per student)

Presentations and discussions of selected topics.

Prerequisite: Approval of department chairperson is required.

### Music Education

**MUS. ED. 101-102. CLARINET CLASS AND METHODS** **Two credits each semester**  
Methods of teaching and instruction in the clarinet.

**MUS. ED. 103-104. BRASS CLASS AND METHODS** **Two credits each semester**  
Methods of teaching and instruction in brass instruments.

**MUS. ED. 105. WOODWIND CLASS METHODS** **Two credits**  
A class conducted as an introduction to the teaching of such woodwinds as clarinet, oboe, flute, and bassoon, with demonstrations of the class teaching of these instruments.

Prerequisite: Mus. Ed. 102.

**MUS. ED. 106. BRASS CLASS METHODS** **Two credits**  
A class conducted as an introduction to the teaching of such brass instruments as trumpet, horn, trombone, baritone, and tuba, with demonstration of the class teaching of these instruments.

Prerequisite: Mus. Ed. 104.

**MUS. ED. 121. VIOLIN CLASS AND STRING METHODS** **Two credits**  
A class in violin playing and in the teaching of string instruments.

No prerequisite.

**MUS. ED. 122. VIOLA CLASS AND STRING METHODS** **Two credits**  
A class in viola playing and in the teaching of string instruments.

No prerequisite.

**MUS. ED. 123. VIOLONCELLO AND BASS CLASS AND STRING METHODS** **Two credits**  
A class in the playing of the violoncello and the bass and in the teaching of string instruments.

No prerequisite.

**MUS. ED. 125. PERCUSSION CLASS METHODS** **Two credits**  
A class in the fundamentals of percussion performance and demonstrations of class teaching.

No prerequisite.

**MUS. ED. 127-128. VOICE CLASS AND METHODS** **Two credits each semester**  
A course in the fundamentals of voice productions: breathing, breath control, elementary study of vowel forms, and consonants. Elementary songs are used to develop the student's own voice as well as to train him in voice pedagogy.

No prerequisite.

**MUS. ED. 201. ELEMENTARY SCHOOL MUSIC METHODS** **Two credits**  
The course involves a general preparation for the teachers of music in the elementary grades. It entails a study of the principles, procedures, and objectives in school music.

Prerequisite: Junior class standing.

**MUS. ED. 202. SECONDARY SCHOOL MUSIC METHODS** **Two credits**  
The course is planned to provide a preparation for teaching the various aspects of music in the secondary school.

Prerequisite: Junior class standing.

**MUS. ED. 209-210. CONDUCTING AND SCHOOL MUSIC MATERIALS** **Two credits each semester**

The development of an adequate baton technique and the presentation of various kinds of school music material, stressing particularly elementary and high school instrumental materials the first semester and high school choral materials the second semester.

No prerequisite.

**MUS. ED. 340. PROFESSIONAL SEMESTER IN MUSIC EDUCATION** **Eight credits**  
Provides classwork and practical experience to prepare for the teaching of music in elementary and secondary schools. Fee: \$25.

To qualify for admission to the Professional Semester, students must secure the recommendation of the department chairperson in their major and the approval of the Education Department chairperson.

Students may schedule late afternoon or evening classes during the professional semester.

Prerequisite: Ed. 201, 202 and cumulative grade point average of 1.85.



FOR TRANSFER AND CLASSIFICATION PURPOSES, CREDIT  
WILL BE ASSIGNED AS FOLLOWS:

**MUS. ED. 343. GENERAL CLASSROOM METHODS** **One credit**  
A study of various instructional procedures used in public school classrooms.

**MUS. ED. 344. MULTI-SENSORY TECHNIQUES IN  
THE TEACHING OF MUSIC** **One credit**  
A study of the use of multi-sensory aids in the teaching of music in elementary  
and secondary schools.

**MUS. ED. 346. STUDENT TEACHING IN MUSIC** **Six credits**  
A course in the observation and student teaching of vocal or instrumental music  
in elementary and secondary schools.

### Nursing

Professor McHenry, chairperson; Assistant Professors Alexander, Bourcier, Champagne, Godek, Rarig, Schreiber, Schapira, Slabinski; Instructors Alichnic, Duffy, Fuller, Goodnight, Proeller, Telban; Adjunct Professors Babcock, Morgan, Torregiani.

The Nursing Program at Wilkes College leads to a Bachelor of Science Degree with a major in nursing and reflects a curriculum design that is responsive to the changing needs of society for health care.

The purposes of the Department are to:

1. Prepare the professional nurse practitioner to use the nursing process in a variety of settings with people of all ages, and to develop the ability and motivation to continue his/her learning through instruction, experiences, and guidance in the undergraduate program.
2. Provide a foundation for graduate study in nursing.

#### Philosophy of Nursing

Professional nursing involves a deliberative process of assessment, problem-oriented planning, implementation and the evaluation of nursing outcomes.

The baccalaureate program offers an educational experience to prepare a professional nurse practitioner who exerts leadership in the emerging roles of primary, acute and long-term care. Emphasis is on the maintenance of health and the surveillance of the health practices of people.

The curriculum pattern enables the student to integrate the arts, the sciences, and the humanities with nursing and to choose electives in areas related to personal interests and career goals.

The opportunity for self-learning is provided in the Learning Center; it is equipped with electronic study carrels and audio-visual

materials. The Center is open twelve hours a day and is staffed at all times with nursing faculty who assist students to progress at their own pace, to utilize the equipment, supplies, and procedures which will be encountered in the various clinical settings. A simulated hospital environment introduces the student to the elementary skills in nursing and the student may return to the Center at any time of the day for review and study.

#### Clinical Resources

Written agreements with the cooperating hospitals and agencies in Northeastern Pennsylvania insure clinical facilities for the student's practice which is concurrent with the classroom theory.

The cooperating hospitals which are utilized are: Wyoming Valley, Nesbitt Memorial, Mercy in Wilkes-Barre and Mercy in Scranton, Veterans Administration, Wilkes-Barre General, and St. Joseph'sernity and Children's Hospital in Scranton, and the National Institutes of Health, Clinical Center, Bethesda, Maryland.

The Agencies utilized are: Rural Health Corporation of Northeastern Pennsylvania, the Luzerne/Wyoming Mental Health Center, the Hazleton/Nanticoke Mental Health Center, St. Stanislaus Medical Care Center, the Maternal Health Services of Northeastern Pennsylvania and Friendship House, Scranton, the State Health Departments in Wilkes-Barre and Scranton, the Home Health Services of the eastern Pennsylvania, the Allied Services for the Handicapped in Scranton, the United Rehabilitation Services of Wilkes-Barre, the RCA Corporation, Dunmore, Pa., the Wilkes-Barre Area School District and the Northwest Area School District, Shickshinny.

*Students are responsible for their own transportation to assigned clinical areas.*

#### Expenses of the Nursing Program

The student of nursing assumes all the financial obligations listed in the finance section of this catalogue. Additional expenses incurred in the nursing program include: uniforms, name pins, yearly physical examinations, immunizations, dental and eye examinations, NLN achievement and comprehensive tests, liability insurance, transportation to assigned clinical areas and the College Nursing pin upon completion of the program.

#### Comprehensive Examinations

In addition to fulfilling the academic requirements of the College, students majoring in nursing are required to successfully complete the comprehensive examinations administered by the Department of Nursing. The examinations are given during the senior year.



### Advanced Placement by Examination

The Department of Nursing provides advanced credit examinations for applicants to enter the program at their level of competency. Previous education and/or practical experience which would involve repetitive learning may justify advancing the applicant to higher level responsibilities.

Transfer and registered nurse students are required to have a personal interview with a faculty member in the department to plan his/her program before acceptance into the Wilkes nursing program can be completed.

Students may be admitted for either full-time or part-time study and may challenge, in the proper sequence, twenty-one credits of clinical nursing courses. Examinations are offered three times a year, in January, May, and August. Upon approval of the petition and acceptance of the \$25.00 fee for each course, study materials and directions will be given to the student by the faculty advisor. Examinations may not be repeated. Upon successful completion of the examination, the credits are recorded on the student's official records.

### License to Practice

Candidates for a license to practice in the health field are required to have "good moral character." (Section 6, of Act 151, amended May 29, 1968 — P.L. 135, No. 73.) The Pennsylvania State Board of Nurse Examiners may take into consideration, when deciding on the applications for registration and a license to practice under their jurisdiction, whether candidates have been included in any legal action or legal proceedings, either civil or criminal.

### Curriculum

The curriculum is an integrated program covering a four-year academic period, totaling 127 credits.

Satisfactory completion of all required liberal arts and nursing courses, which include both theory and practice, is prerequisite for progression to the succeeding year of study. Only with the permission of the chairperson of the Nursing Department may changes be made.

Nursing courses are introduced in the second year and the nursing experiences progress from the simple to the complex throughout the four-year period. Examinations in nursing may be repeated only once.

The student will have the option to select his/her area of concentration in Nursing for independent study in the senior year, and will be assigned a faculty advisor who is a clinical expert in the student's chosen field of interest.

### Course Requirements

Nursing	47 credits (Nsg. 200—Nutrition is not included)
Sciences	20
Humanities	18
Social Sciences	18
Electives	21

Minimum number of credits required for B.S. degree — 127

#### NSG. 101. INTRODUCTION TO NURSING

Three credits

A basic course in nursing which explores the concepts of man, the quality of human life, nursing and the profession. Man's needs and nursing's roles and responsibilities for health care are defined and analyzed within the context of changing social needs and health service delivery systems.

#### NSG. 102. THE NURSING PROCESS

Four credits

The components of Nursing, and the knowledge and skills essential to each are defined and developed. Theory is supplemented by practical experiences in the acquisition of skills. Self-instruction in the learning center, under supervision, is required and limited activities in community agencies are selected. Class, three hours a week; clinical experience three hours a week. Fee: \$20.

Prerequisite: Nsg. 101, Bio. 115, Chem. 105.

#### NSG. 200. PRINCIPLES OF NORMAL AND THERAPEUTIC NUTRITION

Three credits

An introduction of the basic science of human nutrition; principles of normal and therapeutic nutrition, meal planning, computation of diets, physiological, psychosocial and social effects of food and its constituents, and some contemporary local, national and international nutrition problems. Class, three hours a week.

Prerequisite: Chem. 230 and Nsg. 102 (may be taken concurrently).

#### NSG. 201. NURSING CARE OF THE GROWING FAMILY I

Six credits

Focus is on the nursing needs of the growing family during the childbearing and child-rearing years. Theory includes normal reproduction and complications, the well child and common health hazards. The psychosocial, and community health concepts will be integrated. Class, four hours a week; clinical practice, six hours a week. Fee: \$20.

Prerequisite: Nsg. 102, Bio. 116. (Bio. 113 and Nsg. 200 may be taken concurrently)

#### NSG. 202. NURSING CARE OF THE GROWING FAMILY II

Six credits

Focus is on the health needs of the child through adolescence, and young adult. Theory and learning experiences are designed to help the student develop the nursing knowledge and skills necessary to assist in the promotion of comfort, health, and security. Mental health and community health concepts are integrated. Class, four hours a week; clinical practice, six hours a week. Fee: \$20.

Prerequisite: Nsg. 201.

#### NSG. 203. NURSING CARE OF THE ADULT FAMILY I

Eight credits

The nursing process is utilized in assisting adults and their families to maintain optimum wellness and to resolve selected health problems. Rehabilitation, mental health and community nursing concepts are integrated as a part of the total nursing care. Theory is concurrent with clinical experience in primary, secondary and tertiary health care settings. Class, four hours a week; clinical practice twelve hours a week. Fee: \$20.

Prerequisite: Nsg. 202.



**NSG. 204. NURSING CARE OF THE ADULT FAMILY II** **Eight credits**  
Theory and selected clinical experiences in applying concepts and techniques in increasingly complex problems of mobility due to accident, injury, disease, or old age. This involves the acute and chronic problems; also the aging patient facing the culmination of life in old age. Rehabilitation, mental health, and community nursing concepts are integrated as a part of total nursing care. Theory is correlated with clinical experience in primary, secondary and tertiary health care settings. Class, four hours a week; clinical practice 12 hours a week. Fee: \$20.

Prerequisite: Nsg. 203.

**NSG. 294. PSYCHIATRIC/MENTAL HEALTH NURSING** **Three credits**  
(½ semester)  
Theory and clinical experience related to the client who manifests psychopathology. Theory includes content on specific maladaptive behaviors and various treatment modalities. The theory is concurrent with clinical practice in mental health settings. Class, three hours a week; clinical practice nine hours a week over a seven-week period.

Prerequisite: Psy. 102, Nsg. 204.

**NSG. 295. CONCEPTS IN NURSING PRACTICE (½ semester)** **Three credits**  
Develops concepts of organization, management, and change through in-depth exploration of the principles and processes and their application to nursing, the health care system, and the community. Clinical experience is designed to develop nursing competencies through progressively independent practice in a primary health care setting. Class, two hours a week; clinical practice 12 hours a week. Fee: \$20.

Prerequisite: Nsg. 204.

**NSG. 296. INDEPENDENT STUDY** **Four credits**  
The student, with the assistance of a faculty advisor, structures a clinical practice and study experience congruent with his/her special interest and career goals and within the options available in a variety of health care facilities. Under the guidance of a preceptor in the clinical area and a faculty advisor the student utilizes the nursing process in helping groups of patients/clients with common health problems. Complex clinical nursing problems and related research are explored in weekly seminars. Practice-study experience totaling 240 hours. Fee: \$20.

Prerequisite: Nsg. 294, Nsg. 295 and research course to be designated.

**NSG. 297. CONTEMPORARY PROBLEMS IN NURSING** **Two credits**  
Using the seminar method students explore contemporary issues in the field of nursing and health care. Class, two hours a week.

Prerequisite: Nsg. 204.

**NSG. 298. TOPICS** **Three credits**  
A study of topics of special interest not extensively treated in regularly offered courses.

Prerequisite: Approval of the instructor.

## Philosophy

Associate Professor Henson, chairperson; Associate Professors Kay, Williams (sabbatical); Assistant Professor Wuori; Adjunct Professor Barras.

The study of philosophy, whether by those who pursue a major in philosophy or by those who elect only a few courses of special interest, contributes to the development of the most basic skills and habits of mind which are characteristic of educated men and women: clarity of thought, precision in the analysis of conflicting claims and

the power to render sound judgments based upon an appreciation of differing perspectives, and the ability to express and defend one's own views with force and imagination. Students who develop these skills through the study of philosophy are not only ideally prepared for a variety of professional careers in law, medicine, teaching, and the ministry; they are also the beneficiaries of the traditional liberal arts education essential in today's world for success in numerous careers in government, business, and industry.

Since students elect to study philosophy for a variety of reasons, and because many philosophy majors elect to pursue a "double major" in philosophy and a related area of interest, philosophy majors are invited to design their own majors in consultation with their advisors and with the approval of the department chairperson. The typical program consists of 30 credit hours in philosophy, including either Philosophy 101 or Philosophy 201, and Philosophy 152.

Total minimum credits required for the B.A. degree — 121.

**PHIL. 101. INTRODUCTION TO PHILOSOPHY** **Three credits**  
An introduction to the major figures, problems, and concerns of Western philosophical thought. Students in this course typically examine a variety of philosophical questions and problems, such as: the existence of God; human nature and the good life; fatalism, freedom, and responsibility; skepticism and the nature of knowledge; and theories of reality.

No prerequisite.

**PHIL. 152. INTRODUCTION TO LOGIC** **Three credits**  
An introduction to the principles of deductive reasoning. The recognition of fallacies; general rules of inference; distinguishing good and bad arguments; the use and abuse of language; and the application of logical principles to related disciplines.

No prerequisite.

**PHIL. 201. ORIGINS OF WESTERN THOUGHT: SOCRATES TO AUGUSTINE** **Three credits**  
The development of Western philosophical thought from its beginnings in the Greek world to Christian thought in the Middle Ages. Special attention will be focused upon the writings of the Pre-Socratics, Plato, Aristotle, Plotinus, Aquinas, Duns Scotus, William of Ockham, and Augustine.

No prerequisite.

**PHIL. 202. MODERN PHILOSOPHY: DESCARTES TO KANT** **Three credits**  
Western philosophical thought from the Renaissance to the end of the eighteenth century, including the writings of Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, and Kant.

Prerequisite: Phil. 101 or 201.

**PHIL. 203. NINETEENTH CENTURY PHILOSOPHY** **Three credits**  
An examination of the writings of the major English and European philosophers in the nineteenth century, including the works of Fichte, Schopenhauer, Mill, Kierkegaard, Nietzsche, McTaggart, Bradley, and Marx.

Prerequisite: Phil. 101 or 201.



**PHIL. 204. TWENTIETH CENTURY PHILOSOPHY** **Three credits**  
Major figures and movements in contemporary philosophical thought, with special emphasis upon English philosophy since 1900. Major philosophers to be studied include Moore, Russell, Ayer, Wittgenstein, Bergson, Husserl, Heidegger, and Sartre.

Prerequisite: Phil. 101 or 201.

**PHIL. 206. AMERICAN PHILOSOPHY** **Three credits**  
A survey of the distinctively American contributions to philosophical thought, from Jonathan Edwards to the present. Included in the course are an examination of major influences in American thought, such as realism, idealism, and pragmatism, as well as a study of major figures such as Santayana, Royce, Peirce, James, Dewey, Whitehead, Hocking, Quine, and others.

Prerequisite: Phil. 101 or 201.

**PHIL. 210. ETHICS** **Three credits**  
A study of the values, ideals, and ideologies which comprise the foundations of human conduct. Several major ethical theories will be examined, e.g., egoism, altruism, and utilitarianism, along with a number of ethical problems such as moral skepticism, relativism, the concept of authority, and the role of facts in ethical theory. The application of ethical theory to specific human problems such as racism and sexism, homosexuality, political corruption, punishment, violence, and drug abuse is also examined.

Prerequisite: Phil. 101 or 201.

**PHIL. 214. MEDICAL ETHICS** **Three credits**  
An inquiry into the ethical issues which underlie the practice of medicine. Classical ethical theories such as those of Plato, Hume, Kant, and Mill are examined in a context involving such medical problems as: patients' rights, genetic counseling, abortion, human experimentation, elective death, birth defects, and the limits of lifesaving therapy. Prerequisite: Phil. 101 or 201.

**PHIL. 216. PHILOSOPHY OF ART** **Three credits**  
An examination of the nature of artistic creativity, imagination, perception, and expression as such notions arise in the literary arts of fiction and poetry, the visual arts of painting, photography, motion pictures, and television, and the performing arts of drama, music, and dance. Emphasis will also be placed upon the development of at least one major theory of art such as that of Plato, Aristotle, Kant, Dewey, or Collingwood.

Prerequisite: Phil. 101 or 201.

**PHIL. 220. PHILOSOPHY OF RELIGION** **Three credits**  
An examination of various problems that arise when religion is made the object of philosophical reflection. The nature and forms of religious experience; the relationship between faith and reason; arguments for the existence of God; the problem of evil; arguments for immortality; the concepts of worship and miracle; the nature of religious language; and the possibility of religious knowledge.

Prerequisite: Phil. 101 or 201.

**PHIL. 225. LITERATURE OF THE OLD TESTAMENT** **Three credits**  
The course aims at giving students an insight into the books of the Old Testament and the range and depth of the religious heritage received from Israel. The biblical message is studied in its dynamic context of the culture, geography, and history of the ancient Near East.

Prerequisite: Phil. 101 or 201.

**PHIL. 226. LITERATURE OF THE NEW TESTAMENT** **Three credits**  
An examination of the form and content of the books of the New Testament as literary products and as records of the faith that gave rise to the Christian Church. The teachings of Jesus and the Apostolic Church are studied against the background of their own time and examined in their significance for contemporary life.

Prerequisite: Phil. 101 or 201.

**PHIL. 228. CONTEMPORARY RELIGIOUS THOUGHT** **Three credits**  
A study of the development of religious thought from "Neo-Orthodoxy" to the "Death of God" theologies. The impact of scientism, linguistic philosophies and ecumenism on modern theologizing; the thinkers whose views will be considered include: Barth, Brunner, the Niebuhrs, Bultmann, Farmer, Weiman, Maritain, Buber, Sartre, Heidegger, Tillich, Rahner, Rubenstein, Altizer, Cox, Brown, and Weigel.

Prerequisite: Phil. 101 or 201.

**PHIL. 230. SOCIAL AND POLITICAL PHILOSOPHY** **Three credits**  
Social and political institutions as seen by such classical critics as Plato, Aristotle, Hobbes, Hume, Burke, Bentham and others. Special attention to analysis of the problems of censorship, relation of church and state, prejudice, aims and methods of democratic institutions.

Prerequisite: Phil. 101 or 201.

**PHIL. 232. PHILOSOPHY OF HISTORY** **Three credits**  
A study of the various interpretations of history. The views of Augustine, Vico, Rousseau, Kant, Hegel, Marx, Comte, Spengler, Schweitzer, Toynbee, Sorokin, Niebuhr, and others on the meaning of historical events.

Prerequisite: Phil. 101 or 201.

**PHIL. 240. PROBLEMS IN METAPHYSICS** **Three credits**  
A critical examination of one or more problems of ontology and cosmology as dealt with by both classical and contemporary metaphysicians. Problems to be considered may include the concepts of substance, existence, causality, God, space and time, the problem of change and motion, free will and causal determination, fatalism, the relationship between mind and body, and the nature of universals.

Prerequisite: Phil. 101 or 201.

**PHIL. 298. TOPICS** **Three credits**  
The study of a topic of special interest not extensively treated in other courses. Possible topics include: philosophy of law; philosophy of biology; technology and value; philosophy of death; philosophy of literature; etc.

Prerequisite: Phil. 101 or 201.

**PHIL. 301. STUDIES IN GREEK PHILOSOPHY** **Three credits**  
A critical examination of a single major philosopher or text in the period of classical Greek philosophy. Variable content: this course may be repeated for credit. Normally preceded by Phil. 201.

Prerequisite: Phil. 101 or 201.

**PHIL. 302. STUDIES IN MODERN PHILOSOPHY** **Three credits**  
A critical examination of a single major philosopher or text in the modern period from Descartes to Kant. Variable content: this course may be repeated for credit. Normally preceded by Phil. 202.

Prerequisite: Phil. 101 or 201.

**PHIL. 310. STUDIES IN MORAL PHILOSOPHY** **Three credits**  
A critical inquiry into the development of a rational ethical theory. The ethics of Plato, Aristotle, Hume, Kant, and Mill are examined along with the analytical, existential, and normative extensions of these theories in contemporary ethical thinking. The role which such important ethical concepts as virtue, justice, responsibility, and happiness play in structuring a sensible moral philosophy is examined in depth. Normally preceded by Phil. 210.

Prerequisite: Phil. 101 or 201.

**PHIL. 320. ADVANCED PHILOSOPHY OF RELIGION** **Three credits**  
An intensive examination of a major problem or figure in the philosophy of religion. Variable content: this course may be repeated for credit. Normally preceded by Phil. 220.

Prerequisite: Phil. 101 or 201.



**PHIL. 350. PHILOSOPHY OF SCIENCE****Three credits**

A critical examination of the nature of science; meaning, verifiability and experimentation in the sciences; the principle of verifiability in physics and psychology; induction and the various interpretations of probability; causality and laws of nature, and the nature of explanation and justification.

Prerequisite: Phil. 101 or 201.

**PHIL. 352. SYMBOLIC LOGIC****Three credits**

A review of the propositional calculus and a thorough examination of the predicate calculus, including identity, definite descriptions, and relations. Emphasis will be placed upon the concept of a formal system and axiomatization, as well as properties of deductive systems such as consistency, completeness, independence of axioms, and other formal properties.

Prerequisite: Phil. 152 or Math. 202 or permission of instructor.

**PHIL. 360. EXISTENTIALISM****Three credits**

A close examination of the literature of the major existentialist writers, both theistic and atheistic, together with a consideration of its impact upon philosophy, religion, psychology, and art. Special attention will be given to the thought of Kierkegaard, Nietzsche, Jaspers, Heidegger, Marcel, and Sartre.

Prerequisite: Phil. 101 or 201.

**PHIL. 395-396. INDEPENDENT RESEARCH****One to three credits**

Independent study and research for advanced students in the field of the major under the direction of a staff member. A research paper at a level significantly beyond a term paper is required.

Prerequisite: Approval of department chairperson is required.

**PHIL. 397. SEMINAR****(Maximum of three credits per student)**

**One to three credits** Presentations and discussions of selected topics.

Prerequisite: Approval of department chairperson is required.

## Physical Education and Hygiene

Professor Reese, chairperson; Associate Professors Saracino, Schmidt; Assistant Professors Domzalski, Bearde, Bloomberg, Meyers.

Because of the importance of health and the possession of a sound body, attention is given to the physical well-being of students as a regular part of the curriculum; mass athletics and some form of sport or exercise for each student are included in the program of physical education. Physical education is required of both men and women, except by statement of a physician, during the freshman and sophomore years.

At the beginning of each year students are given a medical and physical examination. The work in physical education includes soccer, football, basketball, baseball, volley ball, and other competitive games. Also included are bowling, tennis, badminton, bicycling, swim instruction, senior life-saving, body mechanics, tumbling and floor exercise, self-defense, golf, modern dance, social and folk dance, elementary games and recreational games.

**P.E. 100 PHYSICAL EDUCATION<sup>1</sup>**

This course is designed to promote physical well-being and good health habits and to encourage participation in activities that will provide relaxation and exercise throughout life. Two hours each week. Four semesters are required.

**P.E. 105-106. HYGIENE<sup>2</sup>****Two credits required**

A study of present-day health problems. The course undertakes to help students enjoy maximum health and happiness through better understanding of food, diet, exercise and physical fitness, infection, communicable and non-communicable diseases, emotional and mental disorders, and problems of everyday living. One hour each week.

## Physics

Professor Donahoe, chairperson; Professors Bellas, Holden; Associate Professors Bailey, Hostler; Assistant Professor Placek.

The B.A. curriculum in physics is designed for the student interested in a major in physics in preparation for a career in teaching, medicine, dentistry, patent law, technical sales, technical translation, technical writing, etc. The student will choose electives after consultation with his advisor.

Normally, students will begin the physics program in the first semester. In exceptional cases the mathematics and physics sequence may be started in the third semester.

The student must choose at least six credits from the following list in addition to those prescribed in the curriculum:

Physics 330 (4)	Physics 332 (4)
Physics 321 (3)	Physics 361 (4)
Physics 340 (3)	Physics 380 (4)
Physics 312 (3)	Physics 391-392 (1-2)

A student electing the minimum of 24 credits in physics must elect an additional four credits in chemistry.

The student must choose 12 credits from the following course combinations: Economics 101 and 102; Psychology 101 and 102; Political Science 101 and 102; or Sociology 101 and 102.

Students who are prospective secondary school teachers should consult the information on education course requirements listed in the section on programs in Education.

The B.S. curriculum is designed to provide a thorough grounding in the fundamentals of this rapidly-expanding science, as well as to acquaint the student with current knowledge and research. Upon completion of the requirements for the degree, the student will be well prepared to proceed to graduate study leading to an advanced degree or to undertake an industrial position.

<sup>1</sup>Students enrolled in AFROTC may substitute AS 101-102-201-202 for the P.E. 100 series.

<sup>2</sup>Class instruction in personal hygiene is required of all students, even those excused by physicians from taking physical education.



FIRST SEMESTER			SECOND SEMESTER		
	B.A.	B.S.		B.A.	B.S.
Phys. 201	4	4	Phys. 202	4	4
Eng. 101	3	3	Eng. 102	3	3
Math. 111	4	4	Math. 112	4	4
Core elective <sup>1</sup>	3	3	Speech 101	—	3
P.E. 105	1	1	Core elective <sup>1</sup>	3	3
P.E. 100	0	0	P.E. 106	1	1
			P.E. 100	0	0
	15	15		15	18
THIRD SEMESTER			FOURTH SEMESTER		
	B.A.	B.S.		B.A.	B.S.
Phys. 203	3	3	Phys. 330	—	4
Phys. 321	—	3	Phys. 340	—	3
Chem. 201	4	4	Chem. 202	4	4
Math. 211	4	4	Math. 212	4	4
Core elective	6	3	Core elective	3	3
P.E.	0	0	Elective	6-7	—
			P.E. 100	0	0
	17	17		17-18	18
FIFTH SEMESTER			SIXTH SEMESTER		
	B.A.	B.S.		B.A.	B.S.
Phys. 311	3	3	Phys. 312	—	3
Phys. 331	4	4	Phys. 332	—	4
Math. 361	—	3	Math. 362	—	3
Core elective	6	6	Core elective	6	6
Elective	3-4	—	Elective	9-10	—
	16-17	16		15-16	16
SEVENTH SEMESTER			EIGHTH SEMESTER		
	B.A.	B.S.		B.A.	B.S.
Phys. 361	—	4	Phys. 380	—	4
Core elective	3	—	Core elective	3	—
Elective <sup>2</sup>	13	11-13 <sup>3</sup>	Elective	13	11-13 <sup>3</sup>
	16	15-17		16	15-17

Total minimum credits required for B.A. degree — 127.

Total minimum credits required for B.S. degree — 129.

#### PHYS. 101-102. PHYSICAL SCIENCE

Three credits each semester

A course for the non-science student to enable an understanding and appreciation of the universe in which he lives. The methods, concepts, and vocabulary of physics and applications of some of its outstanding principles to the needs of the individual and the community; and the manner in which the continually expanding frontiers of science affect our future way of life. Lecture, demonstration, and discussion three hours a week.

Prerequisite: Background in Science and Math. not necessary.

<sup>1</sup>German or Russian through 204 or 205 level is required of B.S. candidates. Students with proficiency in either language are urged to seek advanced standing and to commence language study as early as possible but no later than the third semester. Computer Sci. 123 and 223 may be substituted for the last two semesters of language with the approval of the student's advisor.

<sup>2</sup>Students contemplating graduate study in physics should elect Phys. 351 (Quantum Mechanics).

<sup>3</sup>Must include an advanced Math. course each semester.

#### PHYS. 105-106. INTRODUCTORY PHYSICS

Four credits each semester

An introductory course designed to promote an understanding of the more important fundamental laws and methods of the major sections of physics. Laboratory work to emphasize basic principles and to acquaint the student with measuring instruments and their use as well as the interpretation of experimental data. First semester: mechanics, wave motion, sound, and heat. Second semester: electricity, magnetism, and optics. Demonstration lecture two hours a week, recitation one hour a week, and laboratory three hours a week. Fee: \$20.

#### PHYS. 201. GENERAL PHYSICS I

Four credits

A thorough grounding in the concepts, principles, and physical laws of mechanics, thermodynamics and wave motion. Instruction by demonstration-lecture, recitation, and experimental work. Demonstration lecture two hours a week, recitation one hour a week, and laboratory three hours a week. Fee: \$20.

#### PHYS. 202. GENERAL PHYSICS II

Four credits

Continuation of Phys. 201. Electricity and magnetism, and optics and light. Demonstration-lecture two hours a week, recitation one hour a week, and laboratory three hours a week. Fee: \$20.

Prerequisite: Phys. 201.

#### PHYS. 203. GENERAL PHYSICS III

Three credits

Continuation of Phys. 201 and 202. Modern physics. Including the experimental basis, concepts, and foundational principles of modern atomic and nuclear physics. Demonstration-lecture three hours a week.

Prerequisite: Phys. 202.

#### PHYS. 307. TOPICS IN THEORETICAL PHYSICS

Three credits

Selected topics depending upon the interests of the instructor and students. Topics might include advanced mechanics, fluid mechanics, electromagnetic theory, relativity, etc. Three hours class a week.

Prerequisite: Approval of instructor and department chairperson.

#### PHYS. 308. TOPICS IN APPLIED PHYSICS

Three credits

Selected topics depending upon the interests of the instructor and students. Topics might include astrophysics, biophysics, geophysics, medical physics, optical instrument design, reactor physics, etc. Three hours class a week.

Prerequisite: Approval of instructor and department chairperson.

Physics 392, Advanced Laboratory, may be a corequisite.

#### PHYS. 311-312. MECHANICS

Three credits each semester

Intermediate level courses designed to develop a thorough understanding of the principles of mechanics and the application of mathematical methods to the solution of problems. Topics include harmonic oscillator, central force problems, rotations of rigid bodies, moving coordinate systems, continuous media, inertia and stress tensors, Lagrange's equations of motion, theory of small vibrations. Recitation-lecture three hours a week.

Prerequisite: Phys. 202 and Math. 212.

#### PHYS. 320. ELECTRONIC INSTRUMENTATION FOR THE LIFE AND BEHAVIORAL SCIENCES

Three credits

#### PHYS. 321. ELECTRONIC INSTRUMENTATION FOR THE PHYSICAL SCIENCES

Three credits

Construction, calibration and use of electronic instruments. Operational amplifiers and integrated circuits as device components. Students will be encouraged to follow their own interests in designing simple devices for special applications. Two hours class and one three-hour laboratory per week. Fee: \$20.

Prerequisite: Phys. 106 or 202.



**PHYS. 330. OPTICS AND LIGHT****Four credits**

The principles of geometrical and physical optics are considered in considerably greater detail than in the introductory course. Image formation, refraction, diffraction, origin of spectra, polarized light, optical activity, etc. Three hours class and one three-hour laboratory a week. Fee: \$20.

Prerequisite: Phys. 202.

**PHYS. 331-332. ELECTRICITY AND MAGNETISM****Four credits each semester**

Static and dynamic electricity, magnetism, electromagnetism, thermoelectricity, etc., are covered in considerable detail. The emphasis in this course is on fundamental analysis rather than applications. Three hours class and one three-hour laboratory a week each semester. Fee: \$20 each semester.

Prerequisite: Phys. 202 and Math. 212.

**PHYS. 340. THERMODYNAMICS****Three credits**

The fundamental concepts of thermodynamics. The laws of thermodynamics, Carnot cycle, entropy, and an introduction to kinetic theory and statistical mechanics. Three hours lecture-discussion a week.

Prerequisite: Phys. 202.

**PHYS. 351. QUANTUM MECHANICS****Three credits**

An introduction to quantum mechanics; Schrodinger's equation and its application to the harmonic oscillator, the potential-well, and the hydrogen atom; perturbation theory; angular momentum; identical particles and Pauli's exclusion principle; introduction to the relativistic wave equation and the origin of electron spin. Three hours lecture-discussion a week.

Prerequisite: Phys. 312, Math. 362.

**PHYS. 361. ATOMIC PHYSICS****Four credits**

Black body radiation, wave-particle quality, hydrogenic atoms, multielectron atoms, molecules, solids. Class, three hours and one three-hour laboratory a week. Fee: \$20.

Prerequisite: Phys. 203, 311, 331.

**PHYS. 370. INTRODUCTION TO SOLID STATE PHYSICS****Three credits**

Topics include bonding and structure, translational symmetry, direct and reciprocal lattices, lattice dynamics, electronic structure of simple metals, insulators and semiconductors. Three hours class a week.

Prerequisite: Phys. 361, Math. 362 or approval of instructor.

**PHYS. 380. NUCLEAR PHYSICS****Four credits**

Special relativity, natural and induced radioactivity, nuclear structure, nuclear reactions, reactors, etc. Three hours class and one three-hour laboratory a week. Fee: \$20.

Prerequisite: Phys. 361.

**PHYS. 391-392. ADVANCED LABORATORY****Hours to be arranged****One or two credits**

Students desiring to undertake laboratory work in topics of their own choosing should consult the department chairperson. Fee: \$20.

Prerequisite: Phys. 203, Math. 212.

**PHYS. 395-396. INDEPENDENT RESEARCH****One to three credits**

Independent study and research for advanced students in the field of the major under the direction of a staff member. A research paper at a level significantly beyond a term paper is required.

Prerequisite: Approval of department chairperson is required.

**PHYS. 397. SEMINAR (Maximum of three credits per student)****One to three credits**

Presentations and discussions of selected topics.

Prerequisite: Approval of department chairperson is required.

THE 400 SERIES COURSES ARE GRADUATE COURSES AVAILABLE TO UNDERGRADUATE SENIORS WITH PERMISSION OF INSTRUCTOR AND THE DEPARTMENT CHAIRPERSON

**PHYS. 401-402. METHODS OF MATHEMATICAL PHYSICS****Three credits each semester**

Study of different branches of Mathematics and their applications in Physics. Topics include: Ordinary and partial differential equations; Fourier series and integrals; Complex variables; Matrix methods; Green's functions; Tensor analysis; Group theory; and others. Three hours lecture-discussion.

Prerequisite: Math. 362, or equivalent.

**PHYS. 423. X-RAY DIFFRACTION****Three credits**

Modern developments in x-ray diffraction. Generation, detection, and measurement of x-rays. Elastic and inelastic scattering. The geometry of crystals and diffraction by polycrystalline and amorphous materials. The kinematical theory and pair distribution functions. The dynamical theory for perfect and imperfect crystals as derived from Maxwell's equations. Total cross-sections, line shape functions, one-electron factors, and determination of crystal structure. Experimental x-ray methods and applications. Laboratory, one period per week. Fee: \$20.

Prerequisite: Phys. 471.

**PHYS. 427. SOLID STATE DEVICES****Three credits**

Application of energy band theory. Fermi-Dirac statistics. Conduction theory. Intrinsic and impurity conduction. Semiconductor properties and characteristics of p/n junctions. Transistors and transistor theory. Characteristics of transistors. High-current characteristics. Feedback effects.

**PHYS. 473. ANISOTROPIC PROPERTIES OF CRYSTALS****Three credits**

Application of matrices and tensors to represent anisotropic physical properties of crystalline solids. The stress-strain and elastic properties. Paramagnetic and diamagnetic susceptibility, and electric polarization. Thermal expansion and thermodynamics of equilibrium properties of crystals. Thermal and electrical conductivity, and thermoelectricity. Double refraction, optical activity, and crystal optics.

## Political Science

Professor Driscoll, chairperson; Professor Soter; Associate Professor Belic; Assistant Professor Tuhy; Instructor Freysinger; Adjunct Professors McDonald, Shaw.

The major in Political Science is designed to give the students some introduction to the many subject matters subsumed in the discipline of Political Science and to acquaint them with the broad spectrum of political problems in today's complex and rapidly changing world. At the same time, the offerings above the introductory level are grouped into major areas which will permit the student to do considerable in depth study and analysis.

A major in Political Science must take the two introductory courses, P.S. 101 and P.S. 102; at least one course in each of four substantive areas (American Politics; Government and Administration; Comparative and International Politics; Constitutional Law and Political Thought) and one course in the 390 sequence, which includes special Topics, Methodology, Research and intern-type experience.



The number of credits required is 30 semester hours — 24 above P.S. 101 and 102.

Majors are strongly advised to take Statistics (Math. 150) and Fortran Programming (Comp. Sci. 123) unless their area of greatest interest is Comparative and International Politics, in which case knowledge of at least one foreign language is strongly recommended. Pre-law students are advised to take work in Accounting.

Total minimum credits required for B.A. degree — 121.

## I. INTRODUCTORY COURSES

**P.S. 101. POLITICAL SCIENCE I** **Three credits**  
A broad, comprehensive introduction to the great issues of politics: legitimacy and power; liberty and authority; the varying structures of political systems and their relations with each other.

**P.S. 102. POLITICAL SCIENCE II** **Three credits**  
A descriptive and analytical study of the theory and practice of American government: its constitutional basis, organization, powers, functions, and problems.

## II. AMERICAN POLITICS

**P.S. 203. AMERICAN POLITICS, PARTIES, POLITICAL BEHAVIOR** **Three credits**  
Analysis of the process through which people relate to, influence, and control their government. Publics and public opinion formation; role of interest groups; political parties; voting behavior.  
Prerequisite: P.S. 102 recommended.

**P.S. 204. POLICY FORMATION** **Three credits**  
Analysis of the policy-making process at the national level of American government. Role of the President and Congress as leaders and participants in policy-making, with attention to the role of the bureaucracy, interest groups, political parties, and judicial review.  
Prerequisite: P.S. 102 recommended.

**P.S. 205. AMERICAN STATE AND LOCAL POLITICS IN THE FEDERAL SYSTEM** **Three credits**  
Analysis of the structures and processes of state and local governments within the constitutional framework of a changing Federal system. Emphasis is on institutional and political processes and functions, and inter-relationships between local, state, and Federal policies and agencies.  
Prerequisite: P.S. 102 recommended.

**P.S. 207. PUBLIC ADMINISTRATION** **Three credits**  
An introduction to the principles and problems of public administration in an increasingly complex society. Attention to topics such as leadership, informal organizational processes (infra-structure), the relation of administration to its cultural context, and the question of administrative responsibilities, as well as the more technical problems of personnel, finance, and administrative law.  
Prerequisite: P.S. 102 recommended.

## III. GOVERNMENT ORGANIZATION AND ADMINISTRATION

**P.S. 207. PUBLIC ADMINISTRATION** **Three credits**  
Same as course listed above in Group II.

**P.S. 210. PROBLEMS IN METROPOLITAN AREAS** **Three credits**  
An examination of the politics and the processes of contemporary urban government, with special emphasis upon the complex problems presented by the rapidly expanding population in standard metropolitan areas.  
Prerequisite: P.S. 102 recommended.

**P.S. 211. PROBLEMS IN LOCAL GOVERNMENT AND ADMINISTRATION** **Three credits**  
Identification of the major problems in administration of local government. Study of the accepted methods, skills, and techniques of management of local functions and services. Emphasis on practical applications.  
Prerequisite: P.S. 102 recommended.

**P.S. 214. PLANNING IN URBAN DEVELOPMENT** **Three credits**  
Origins and evolution of city planning, influences of urban growth, legal and institutional framework, and scientific and philosophical premises. Survey of city planning as it has evolved in the United States since 1800 in response to physical, social and economic problems.  
Prerequisite: P.S. 102 or 205 or 210 or 211.

**EC. 236. PUBLIC FINANCE** **Three credits**  
See description under Economics.

## IV. COMPARATIVE AND INTERNATIONAL POLITICS

**P.S. 222. INTERNATIONAL RELATIONS** **Three credits**  
Survey of essential elements in international relations such as national power, imperialism, balance of power, collective security, international law, international organization, and problems of peace.  
Prerequisite: P.S. 101 recommended.

**P.S. 223. COMPARATIVE POLITICS: THE POLITICAL SYSTEMS OF WESTERN EUROPE** **Three credits**  
A comparative study of the various forms of government in selected nations of Western Europe — their development and changing politics and political systems.  
Prerequisite: P.S. 101 and 102 recommended.

**P.S. 224. COMPARATIVE POLITICS: THE U.S.S.R. AND THE COMMUNIST COUNTRIES OF EASTERN EUROPE** **Three credits**  
The development of the Soviet system; some attention to the Russian culture pre-1917, early Marxism and Leninism and the Russian Revolution. Emphasis on the development, maintenance, and possibilities of change in the inter-locking system of Party and government. Comparison with events and processes in nations under Soviet domination.  
Prerequisite: P.S. 101 and 102. Offered in alternate years.

**P.S. 225. INTERNATIONAL ORGANIZATION** **Three credits**  
Analysis of theory and practice in international organization; structure of the United Nations organization; making of peace and enforcement action; human rights and promotion of welfare.  
Prerequisite: P.S. 101 and 102.



**P.S. 226. COMPARATIVE POLITICS: EAST ASIAN GOVERNMENTS**

**Three credits**

Analysis of the distinctive institutions, processes and problems of political development in Asia, with emphasis on the contrast in modernization and modern institutions of government and politics in China and Japan.

Prerequisite: P.S. 101 and 102. Offered in alternate years.

**V. CONSTITUTIONAL LAW AND POLITICAL THOUGHT**

**PHIL. 230. SOCIAL AND POLITICAL PHILOSOPHY**

**Three credits**

See description under Philosophy.

**P.S. 231. CONSTITUTIONAL LAW I**

**Three credits**

Study of the growth and change of the American Constitution through analysis of the leading cases decided by the U.S. Supreme Court. Analysis of the powers of the three branches of government and of the relations between the states and the Federal Government.

Prerequisite: P.S. 101 and 102.

**P.S. 232. CONSTITUTIONAL LAW II**

**Three credits**

Continuation of the study of meaning of the Constitution as interpreted by the Supreme Court. Analysis of the landmark decisions regarding free speech and press, separation of church and state, rights of persons accused of crime, equal protection of the laws, voting rights.

Prerequisite: P.S. 101 and 102.

**P.S. 235. AMERICAN POLITICAL THOUGHT**

**Three credits**

Study of the political ideas, ideals, and ideologies as they contributed to and developed from the American experience. Analysis of the ways of thought which underlie our political institutions and practices.

Prerequisite: P.S. 102 recommended.

**VI. ADVANCED SPECIAL STUDIES**

**P.S. 393. POLITICAL SCIENCE: CONCEPTS AND METHODS**

**Three credits**

Survey of major concepts, theories, and methods of current Political Science as a discipline. Some attention to research design and techniques.

Prerequisite: At least 4 courses in P.S. or consent of instructor.

**P.S. 394. PRACTICUM**

**Three-six credits**

Internship or similar experience in an administrative office, community agency, election campaign, or work related to administration or politics.

Prerequisite: At least 4 courses in P.S., or Urban Studies, or field in which internship will be served, such as Environmental Science. Student must consult with department before registering.

**P.S. 395-396. INDEPENDENT RESEARCH**

**One-three credits**

Independent study and research for advanced students in the major under the direction of a staff member. A research paper at a level significantly beyond a term paper is required.

Prerequisite: Approval of department.

**P.S. 397. SEMINAR**

**Three credits**

Presentation and discussion of selected topics by students.

Prerequisite: P.S. 393.

**P.S. 398. TOPICS IN POLITICAL SCIENCE**

**Three credits**

A study of topics of special interest not extensively treated in regularly offered courses. Examples of possible topics would be: Leadership in Congress; Minorities in the Political Process; Women and Power; Environmental Policies; Urban Design; International Law; War and Peace; Political Thought in the Far Eastern Tradition; The First Amendment in Law and Practice; Equality at Law in an Unequal Society, etc. May be repeated when topic differs.

Prerequisite: Permission of department, criterion depending on topic.

**Psychology**

Professor Riley, chairperson; Associate Professor Stetten; Assistant Professors Charnetski, Truckenmiller, Raslear; Adjunct Professor Kanner.

Psychology 101 and 102 is the starting point for the psychology program and must be taken by all psychology majors. These two courses do not count toward the 24-credit hours of psychology required of majors.

To allow the greatest possible flexibility in the psychology program, there is only one additional psychology course required of all psychology majors once the Psychology 101 and 102 sequence has been taken, that being Psychology 215, Research Design and Analysis. Students are then free to tailor a program of study to fit their own needs and interests. It is strongly recommended, however, that students take Psychology 211 and 212, Experimental Psychology, especially if they have any intention of pursuing graduate training. Students are reminded that professional psychological work presumes advanced graduate study. Psychology 206, History of Psychology, would be useful to the students so that they might appreciate the breadth and nature of psychological thought and effort.

It would be highly desirable for the student to take at least one course from each of the interest areas listed below to achieve a reasonably balanced exposure. Because some courses have prerequisites and all courses are not offered each semester, it is advised that the individual program be started early and be well planned. Research Design and Analysis would then be taken in the sophomore year along with History of Psychology and/or Contemporary Psychological Theories. Experimental Psychology and interest area courses would then be reserved for the junior year, saving Seminars and Independent Research for the final semesters.

Required Courses: Psy. 101-102 General Psychology  
Psy. 215 Research Design and Analysis

Strongly Advised: Psy. 211-212 Experimental Psychology  
Psy. 206 History of Psychology



**Interest Areas: I: Psy. 203 Contemporary Psychological Theories**

Psy. 213 Physiological Psychology  
Psy. 214 Sensation and Perception  
Psy. 311 Comparative Psychology

**II: Psy. 242 Psychological Tests**  
Psy. 243 Industrial Psychology  
Ed. 202 Educational Psychology\*  
Soc. 255 Social Psychology\*

**III: Psy. 221 Child Psychology**  
Psy. 232 Human Behavior  
Psy. 245 Clinical Psychology  
Psy. 331 Abnormal Psychology

Total minimum credits required for a B.A. degree — 121.

**PSY. 101-102. GENERAL PSYCHOLOGY** **Three credits each semester**  
An introduction to the field of psychology with emphasis on objective and systematic methods of inquiry. Extensive treatment of major psychological topics such as sensation, perception, learning, motivation, intelligence, and personality development. Frustration, conflict, and mental health also receive attention.

**PSY. 201. ADVANCED GENERAL PSYCHOLOGY** **Three credits**  
A more detailed study of topics treated only superficially in the introductory course. There will be emphasis on contemporary readings.  
Prerequisite: Psy. 101-102.

**PSY. 203. CONTEMPORARY PSYCHOLOGICAL THEORIES** **Three credits**  
An examination of current theories in psychology, with emphasis upon the major systematic and "miniature" learning theories.  
Prerequisite: Psy. 101-102.

**PSY. 206. HISTORY OF PSYCHOLOGY** **Three credits**  
A study of the philosophic and scientific roots of contemporary psychology, with emphasis on the applicability of past questions and knowledge to current psychological thought.  
Prerequisite: Psy. 101-102.

**PSY. 211-212. EXPERIMENTAL PSYCHOLOGY** **Three credits each semester**  
A lecture and laboratory course designed to familiarize the student with the methods and the results of modern psychological research. The course includes a study of several of the famous experiments in the field of psychology. Also included is practice with the older as well as the more recent methods of experimental research. Lecture and laboratory. Fee: \$20 each semester.  
Prerequisite: Psy. 215.

**PSY. 213. PHYSIOLOGICAL PSYCHOLOGY** **Three credits**  
A systematic study of the physiological mechanisms mediating behavior. Emphasis is on the neuro-physiological bases of sensation, perception, adaptation, motivation, emotion, learning, and memory. Methods and techniques used in the study of the nervous system and sensory and muscular systems will be investigated and demonstrated.  
Prerequisite: Psy. 101-102.

\*While not given within the Department of Psychology, these courses may still be counted toward the 24-credit hours required of the psychology major.

**PSY. 214. SENSATION AND PERCEPTION** **Three credits**  
Various principles and phenomena of sensation and perception are studied within the visual, auditory, olfactory, haptic, and bodily-orientation systems. An introduction to major perceptual theories is also given.  
Prerequisite: Psy. 101-102 and 213.

**PSY. 215. RESEARCH DESIGN AND ANALYSIS** **Three credits**  
An introduction to the use of scientific methods as a means of studying behavior. This course is required of all majors.

**PSY. 221. CHILD PSYCHOLOGY** **Three credits**  
The course is designed to present a general view of the development and growth of the child. It is concerned primarily with the heredity and native equipment of the child and the manner in which this equipment is modified during childhood. Emotional development, language development, and social relations are considered.  
Prerequisite: Psy. 101-102.

**PSY. 232. HUMAN BEHAVIOR** **Three credits**  
Human adjustment and maladjustment to life situations with emphasis on motivation, emotional control, personality formation, and the treatment of the lesser personality disorders.  
Prerequisite: Psy. 101-102.

**PSY. 242. PSYCHOLOGICAL TESTS** **Three credits**  
A survey of the functions measured by psychological tests with emphasis on intelligence and personality. A variety of the group and individual tests which measure these functions are studied. This course is a prerequisite for Psy. 245.  
Prerequisite: Psy. 101-102.

**PSY. 243. INDUSTRIAL PSYCHOLOGY** **Three credits**  
A survey of the applied areas of personnel, organizational, human factors, and consumer psychology.  
Prerequisite: Psy. 101-102.

**PSY. 245. CLINICAL PSYCHOLOGY** **Three credits**  
A survey of the clinical method in psychology with consideration of diagnostic and treatment techniques and the role of the professional psychologist in various settings.  
Prerequisite: Psy. 242 and Psy. 331.

**PSY. 311. COMPARATIVE PSYCHOLOGY** **Three credits**  
A comprehensive survey of animal behavior including both vertebrates and invertebrates. The influence of neurological and endocrine evolution will be studied in relation to adaptation and behavior.  
Prerequisite: Psy. 101-102.

**PSY. 331. ABNORMAL PSYCHOLOGY** **Three credits**  
A general survey of the principle forms of mental abnormalities, with emphasis on causes, symptoms, course, and treatment.  
Prerequisite: Psy. 232.

**PSY. 395-396. INDEPENDENT RESEARCH** **One to three credits**  
Independent study and research for advanced students in the field of the major under the direction of a staff member. A research paper at a level significantly beyond a term paper is required.  
Prerequisite: Approval of department chairperson is required.



**PSY.397.SEMINAR** (Maximum of three credits per student) One to three credits  
Presentations and discussion of selected topics.

Prerequisite: Approval of department chairperson is required.

**PSY. 398. TOPICS IN PSYCHOLOGY** Three credits  
A study in topics of special interest not extensively treated in regularly offered courses.

## Sociology and Anthropology

Associate Professor Goldman, chairperson; Assistant Professors Demory, Kemrer, Martin, Natzke.

Students majoring in sociology, or anthropology, or sociology-anthropology must fulfill the following requirements: Anthropology 101 and Sociology 101 are required, but are not accepted as credit-hours toward the major. Philosophy 230 or 350 may be taken for credit toward the major. Students who intend to major in anthropology, sociology, or sociology-anthropology are requested to consult with the departmental chairperson. Additional requirements pertaining to each of the three departmental programs are specified below.

### Sociology

A major in sociology consists of twenty-four hours, and shall include Sociology 255, 370, 380, and at least one additional course in anthropology.

### Anthropology

A major in anthropology consists of twenty-four hours, and shall include Anthropology 370, 380, and at least one additional course in sociology. The following courses are strongly recommended: Anthropology 270, 271, 272, and 273. Proficiency in at least one foreign language at the 204 level is required.

### Sociology-Anthropology (Joint Major)

A major in sociology-anthropology consists of thirty hours, and shall include Anthropology 370 or Sociology 370, and Anthropology 380 or Sociology 380. A minimum of twelve hours in each field is required. Proficiency in at least one foreign language at the 204 level is strongly recommended.

Total minimum credits required for a B.A. degree — 121.

### Social Science — Urban Affairs

The Social Science degree with a major in urban affairs is designed to provide an interdisciplinary training for those students who wish to enter careers in governmental or non-governmental agencies concerned with the general phenomenon of urbanization at the national, state, or local level. Students who complete academic work in this program

can continue graduate study either in the traditional academic disciplines or in interdepartmental programs.

The Social Science major in urban affairs consists of 39 semester hours in political science, economics and sociology, with a minimum of 12 semester hours in each. Economics 236 and Sociology 215 are required. Political Science 214 is required, and the 9 remaining required hours in Political Science are to be selected from Political Science 203, 204, 205, 207, 210, 211 and 398 (if topic relevant). Political Science 101 and 102, Economics 101 and 102, and Sociology 101 and Anthropology 101 are not accepted toward the major.

## Anthropology

**ANTH. 101. INTRODUCTION TO ANTHROPOLOGY** Three credits  
A general survey of the processes that generate human cultural and biological variation through time and among contemporary human groups. An introduction to cultural and physical anthropology, archaeology, and anthropological linguistics.

**ANTH. 270. CULTURAL ANTHROPOLOGY** Three credits  
A detailed examination of the methods and theories employed in the description and comparison of human cultures, as applied to problems in intercultural relations. Course content is based upon case and cross-cultural studies.

Prerequisite: Anth. 101, or approval of instructor.

**ANTH. 271. PHYSICAL ANTHROPOLOGY** Three credits  
The study of human biological make-up, diversity, and evolution. Topics presented include primate studies, primate taxonomy, and human biological and cultural evolutionary history.

Prerequisite: Anth. 101, or approval of instructor.

**ANTH. 272. LINGUISTIC ANTHROPOLOGY** Three credits  
The structural and historical properties of human language. The study of relationships between language, culture and perception, and patterns of language use.

Prerequisite: Anth. 101, or approval of instructor.

**ANTH. 273. ARCHAEOLOGY** Three credits  
A survey of the methods, techniques, and concepts employed by anthropologically oriented archaeologists to reconstruct and explain sociocultural variation through time. Illustrative material will be based on scientific findings. The course will include several field trips.

Prerequisite: Anth. 101, or approval of instructor.

**ANTH. 300. MEDICAL AND PSYCHIATRIC ANTHROPOLOGY** Three credits  
The study of physical and mental health and treatment from a cross-cultural perspective. The role of culture in defining health-related categories. The study of treatment systems in other cultures. The relationships between culture, environment, and disease. The role of medical and psychiatric anthropology in designing inter-cultural health care delivery systems.

Prerequisite: Anth. 101, or Soc. 101, or approval of instructor.

**ANTH. 301. ARCHAEOLOGICAL FIELD METHODS** Three credits  
The study and use of archaeological field and laboratory techniques. Students will participate in the field and laboratory conducting an archaeological excavation or survey under faculty supervision.

Prerequisite: Anth. 101, or approval of instructor.



**ANTH. 370. ANTHROPOLOGICAL METHODS** Three credits  
A comprehensive survey of the methods employed by anthropologists to describe and analyze the properties of human cultures. The study of field techniques and the methods used in cross-cultural comparison.

Prerequisite: Anth. 101, or approval of instructor.

**ANTH. 380. ANTHROPOLOGICAL THEORY** Three credits  
An intensive survey of the various strategies anthropologists have employed to characterize human culture. A critical evaluation of attempts to explain the nature of culture and the causes of cultural diversity.

Prerequisites: Anth. 101, or approval of instructor.

**ANTH. 392. SOCIOCULTURAL CHANGE** Three credits  
A systematic evaluation of various attempts by social scientists to document and explain the phenomenon of change. A comprehensive survey of the field is presented through selected readings and discussion of major studies from sociology, cultural anthropology and archaeology.

Prerequisite: Soc. 101 or Anth. 101, or approval of instructor.

**ANTH. 395-396. INDEPENDENT RESEARCH** One to three credits  
Independent study and research for advanced students in the field of the major under the direction of a staff member. A research paper at a level significantly beyond a term paper is required.

Prerequisite: By arrangement with an instructor.

**ANTH. 397. SEMINAR** Three credits  
Presentation and discussion of selected themes and issues in anthropology.

Prerequisite: Criteria will vary according to content of seminar.

**ANTH. 398. TOPICS** Three credits  
A study of topics of special interest not extensively treated in regularly offered courses.

### Sociology

**SOC. 101. INTRODUCTION TO SOCIOLOGY** Three credits  
A systematic view of sociology, providing essentials for an approach to questions about man in society; analysis of social processes, structures, and functions.

**SOC. 200. THE FAMILY** Three credits  
History and ethnological studies of family. Role of family in the development of the individual. Interrelation of church, state, and family. Social conditions and changes affecting the American family. Family stability and disorganization.

Prerequisite: Soc. 101 or Anth. 101, or approval of instructor.

**SOC. 215. SOCIOLOGY OF URBAN LIFE** Three credits  
The development of modern cities; effects of urban life upon social organization and personality patterns; major social problems of the cities.

Prerequisite: Soc. 101 or Anth. 101, or approval of instructor.

**SOC. 230. SOCIAL PROBLEMS** Three credits  
A survey of most pressing contemporary social problems and an examination of current theories of social disorganization.

Prerequisite: Soc. 101 or Anth. 101, or approval of instructor.

**SOC. 235. CRIME AND JUVENILE DELINQUENCY** Three credits  
Evaluation of current theories and research into causative factors and sociological implications of criminal and delinquent behavior. Examination of problems, programs, and issues in prevention and treatment of deviant behavior.

Prerequisite: Soc. 101 or Anth. 101, or approval of instructor.

**SOC. 240. MEDICAL AND PSYCHIATRIC SOCIOLOGY** Three credits  
A general survey of the application of sociology in two fields: (1) medicine — social and cultural factors affecting health and illness, doctor-patient relationships, the role of the patient, the hospital environment; and (2) psychiatry — social factors affecting the diagnosis, etiology, and treatment of mental disorders, the mental hospital as a social system, community psychiatry.

Prerequisite: Soc. 101 or Anth. 101, or approval of instructor.

**SOC. 251. FIELDS OF SOCIAL WORK** Three credits  
A survey of the main problems of social work and of agencies and methods that have developed to cope with them. The nature and requirements of the different fields of social work.

Prerequisite: Soc. 101 or Anth. 101 or Psy. 101-102, or approval of instructor.

**SOC. 252. COMPARATIVE SOCIAL WELFARE SYSTEMS** Three credits  
Examination of the social welfare institution within a societal and cultural context. Exploration of historical and conflicting views on responsibility for developing measures to cope with social problems in North American, European, Asiatic, and African countries.

Prerequisite: Soc. 101 or Anth. 101, or approval of instructor.

**SOC. 255. INTRODUCTION TO SOCIAL PSYCHOLOGY** Three credits  
A general survey of the field of social psychology. Social factors in human nature; psychology of individual differences; social interaction; collective behavior, psychology of personality; social pathology.

Prerequisite: Soc. 101 or Anth. 101 or Psy. 101-102, or approval of instructor.

**SOC. 260. PERSONALITY, CULTURE, AND SOCIETY** Three credits  
Examination of current theories and research bearing upon the relationship among personality, culture, and society; contributions and convergent development in psychology, anthropology, and sociology.

Prerequisite: Soc. 101 or Anth. 101 or Psy. 101-102, or approval of instructor.

**SOC. 265. SOCIOLOGY OF INDUSTRY** Three credits  
An analysis of the formal and informal social organization of the work plant and of the relationship between modern industrial organization and the community.

Prerequisite: Soc. 101 or Anth. 101 or approval of instructor.

**SOC. 275. SOCIOLOGY OF MINORITIES** Three credits  
A theoretical analysis of inter-group tensions and processes of adjustment with special reference to modern racial, national, and religious conflicts.

Prerequisite: Soc. 101 or Anth. 101 or Psy. 101-102, or approval of instructor.

**SOC. 370. METHODS OF RESEARCH IN SOCIOLOGY** Three credits  
Introduction to sociological research; selected problems of research in social relations; interviewing techniques; questionnaire design and case studies.

Prerequisite: Soc. 101, or approval of instructor.

**SOC. 380. SOCIOLOGICAL THEORY** Three credits  
The aim of the course is to provide the student majoring in sociology, or in one of the related fields, with a historical background necessary for understanding of the current trends in sociology as well as for clarification of its distinct subject matter, problems, and methods.

Prerequisite: Soc. 101 or approval of instructor.

**SOC. 394. SOCIOLOGICAL ANALYSIS** Three credits  
The systematic critical evaluation of data by means of concepts and methods consistent with the principles of sociology. Both quantitative and qualitative procedures will be employed.

Prerequisite: Soc. 101 or Anth. 101, or approval of instructor.



**SOC. 395-396. INDEPENDENT RESEARCH** **One to three credits**  
Independent study and research for advanced students in the field of the major under the direction of a staff member. A research paper at a level significantly beyond a term paper is required.

Prerequisite: By arrangement with an instructor.

**SOC. 397. SEMINAR** **Three credits**  
Presentation and discussion of selected themes and issues in Sociology.  
Prerequisite: Criteria will vary according to content of seminar.

**SOC. 398. TOPICS** **Three credits**  
A study of topics of special interest not extensively treated in regularly offered courses.

## Theater Arts

Associate Professor Groh, chairperson; Assistant Professor Holm.

The Department of Theater Arts provides opportunities for the student to prepare for teaching in elementary and secondary schools or for graduate study. It is recommended that the student combine work in theater arts along with another discipline. A student planning to teach must meet the certification requirements in that discipline. The program is designed to meet the practical and academic needs of the student interested in an active career in educational and community theater.

**TH. ARTS 101. APPROACH TO THEATER** **Three credits**  
Attention will be directed to the importance of the dramatic imagination in reading and viewing plays, with the objective of developing a critical appreciation of the theater. Lecture, discussion, demonstration, films.

**TH. ARTS 131. SPEECH FOR THE STAGE** **Two credits**  
Students will receive instruction and experience in diction, delivery, interpretation. Classroom exercises will be assigned. This course is designed for those students especially interested in elementary and secondary school teaching and may be substituted for Speech 101. Credit toward graduation requirements in any degree program may be granted for one speech course only.

**TH. ARTS 210. ACTING** **Three credits**  
Students will study the art of creating a variety of characters for the stage through the use of vocal interpretation and physical movement. Each student will extend his acting range and experience by performing various roles in selected dramatic scenes for classroom evaluation.

**TH. ARTS 241. PRODUCTION** **Three credits**  
The student will study the influences of social changes upon methods of staging and will explore the many facets of theatrical production. He will learn to translate the concept of the playwright into physical actuality and will learn to adapt a production to the requirements of a stage. Class and workshop.

**TH. ARTS 250. THEATER: PRINCIPLES AND PRACTICE** **Three credits**  
The student will study creative concepts and theories in the evolution of dramatic writing, staging of plays, and methods of acting that affect the modern theater. Special attention will be given to Theater of Alienation, Theater of Cruelty, and Theater of the Absurd.

**TH. ARTS 260. DOCUMENTARY DRAMA** **Three credits**  
The student will study scripts dramatizing issues and problems relating to man's opinion of himself, of his society, and his world. He will analyze and evaluate material presented on stage, on film, and on television.

**TH. ARTS 330. THEATER HISTORY** **Three credits**  
The student will study the historical development and background of theater art from ancient times to the present.

**TH. ARTS 343. LIGHTING FOR THE STAGE** **Three credits**  
The student will learn the principles of lighting a show so that he may use these principles in either simple or sophisticated lighting systems. He will work with instruments and equipment of the lighting technician.

**TH. ARTS 344. SCENE DESIGN** **Three credits**  
The student will study the nature and function of scenic art. Emphasis will be on contemporary theories and techniques, with special reference to stage designers Robert Edmond Jones, Jo Mielziner, Donald Oenslager, Oliver Smith.

**TH. ARTS 352. DIRECTING FUNDAMENTALS** **Three credits**  
This course deals with play selection; the practical use of the stage; blocking; interpretation of a role; relation of performer and audience. There will be presentation by individual class members of exercises and scenes from plays, to demonstrate stage picturization, dialogue, and movement. Each student must attend rehearsals, assist in the production, and write an analysis of a play or musical performed at the college. Class and workshop.

**TH. ARTS 380. THEATER WORKSHOP** **Three credits**  
This course provides an opportunity to prepare the full production of a short play for an audience: the student will cast and direct the play, he will plan and supervise the lighting, he will design the setting and supervise its construction for the production. The student will work closely with members of the theater staff.

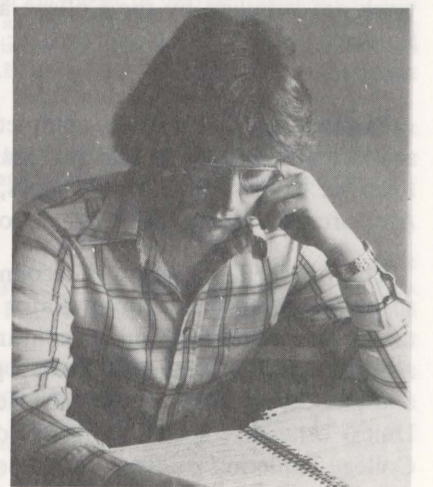
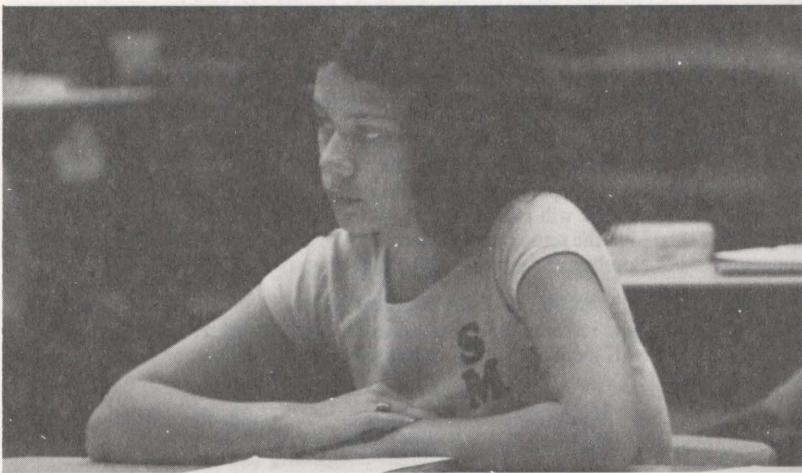
**TH. ARTS 395-396. INDEPENDENT RESEARCH** **One to three credits**  
Independent study and research for advanced students in the theater arts program under the direction of a staff member. A research paper at a level significantly beyond a term paper is required.

**TH. ARTS 397. SEMINAR (Maximum of three credits per student)** **One to three credits**  
Presentation and discussion of selected topics.

**TH. ARTS 398. TOPICS** **One to three credits**  
A study of topics of special interest not extensively treated in regularly offered courses.



*Special  
Degree  
and  
Non-Degree  
Programs*





## Aerospace Studies

Professor Seizys, chairperson; Assistant Professors Bonebrake and Jennings.

### Air Force Reserve Officer Training Corps Program

The Air Force ROTC program is divided into two phases: the General Military Course (GMC), the first two college years, and the Professional Officer Course (POC), the last two years.

A student may elect to enroll in the Four-Year AFROTC Program or the Two-Year AFROTC Program. Students electing the Four-Year Program will take the General Military Course during their freshman and sophomore years and the Professional Officer Course during their junior and senior years. They will attend four weeks of field training during the summer between the sophomore and junior years. As members of the program they are eligible to compete for AFROTC Scholarships. For acceptance into the POC, the Four-Year Program student must pass a physical examination and an Officer Qualifying Test, and possess an acceptable academic rating. To qualify for enrollment in the Two-Year Program, students must have two academic years remaining at either the graduate or undergraduate level or a combination of the two. They must also meet certain physical standards, pass an Officer Qualifying Test, and possess an acceptable academic rating. Further, they must successfully complete a six-week Field Training Course before they can be accepted into the Professional Officer Course. Transfer students may elect the Professional Officer Course by satisfying the above requirements.

Uniforms and all equipment and textbooks required for AFROTC work are supplied by the College and the United States Air Force. Students in the Professional Officer Course receive \$100 per month in subsistence allowance.

Students who successfully complete the Professional Officer Course are commissioned as second lieutenants in the United States Air Force Reserve. Consistent with AF needs, they serve on active duty in the Air Force in a specialty as close as possible to their academic training.

The AFROTC program is recognized as academic but of a highly specialized nature. It is not a major field of study; the course work is taken as a concentration in conjunction with the student's chosen academic major. Academic credit is given for all ROTC subjects taken and passed, and the grades will affect the student's academic rating. Unless otherwise specified in the course requirements section of the College Bulletin, students may use POC or GMC credit hours to satisfy elective requirements for graduation.

### Leadership Laboratory

Leadership Laboratory is a required non-credit activity for all regularly enrolled cadets, and it is conducted one hour each week under the direction of the detachment officer staff. Experts in the fields of defense policy and other current affairs subjects also lecture in the AFROTC Enrichment Program.

### Field Training

Each cadet must attend field training during the summer before entry into the Professional Officer Course. Transportation from the legal residence of the cadet to the field training base and return, food, lodging, and medical and dental care are provided by the Air Force. In addition, the cadet receives approximately \$300 for the four-week field training and \$450 for the six-week field training. In special cases, four-year program cadets and veterans may be granted approval to attend field training one year later than normal.

### Field Trips

Periodically, the Department of Aerospace Studies conducts field trips to various Air Force installations. These trips include tours of the base and familiarization flights.

### Flight Instruction

The Flight Instruction Program (FIP), designed for seniors in the Professional Officer Course who plan to enter Air Force pilot training upon graduation, determines whether applicants have the necessary qualifications to fly high-performance aircraft.

### GENERAL MILITARY COURSE

The General Military Course (GMC) is a two-year program for freshmen and sophomores designed to provide a general knowledge of the role, organization, missions, and historical development of U.S. air power. Students enrolled in the GMC who are not on Air Force scholarships incur no military obligations. Note: AS 101-102-201-202 may be substituted for P.E. 100 series.

#### AS 101. U.S. MILITARY FORCES IN THE CONTEMPORARY WORLD I

Fall — One credit

Background, missions, and functions of U.S. military forces, with emphasis on U.S. Air Force organization, doctrine, and strategic forces. One hour of class and one hour of leadership laboratory per week.

#### AS 102 U.S. MILITARY FORCES IN THE CONTEMPORARY WORLD II

Spring — One credit

U.S. general purpose military forces; insurgency and counter-insurgency; aerospace support forces and organizations. One hour of class and one hour of leadership laboratory per week.

#### AS 201. THE DEVELOPMENT OF AIR POWER I

Fall — One credit

Air power development in historical perspective through the end of World War II; evolution of missions, concepts, doctrine, and employment, with emphasis on changes in conflict and factors which have prompted technological developments. One hour of class and one hour of leadership laboratory per week.



**AS 202. THE DEVELOPMENT OF AIR POWER II** Spring — One Credit  
Air power development from the end of World War II to the present; changing missions and employment of air power in support of national objectives. One hour of class and one hour of leadership laboratory per week.

**AS 251. FLIGHT PROGRAM GROUND TRAINING** Spring — One credit  
Prepares AFROTC cadets and others for FAA private pilot examination through study of general regulations, air traffic rules, accident reporting, air navigation, weather, safety, principles of flight, basic operations, flight computer. Limited spaces beyond AFROTC requirements are available to Wilkes juniors or seniors. Two hours of class/laboratory per week.

#### PROFESSIONAL OFFICER COURSE

The Professional Officer Course (POC) is a four-semester program, normally taken during the junior and senior years, mandatorily leading to commissioning as an Air Force officer. The POC concentrates on national defense policy, concepts and practices of management, and concepts and practices of leadership.

**AS 301. CONCEPTS OF MANAGEMENT** Fall — Three credits  
General theory and practice of management with special reference to the Air Force; study of information systems, quantitative approach to decision making, and resource control techniques; development of communicative skills. Three hours of class and one hour of leadership laboratory per week.

Prerequisite: POC membership or permission of the instructor. **Note: AFROTC cadets may substitute AS 301 for BA 251.**

**AS 302. CONCEPTS OF LEADERSHIP** Spring — Three credits  
Air Force leadership at the junior officer level, including its theoretical, professional, and legal aspects; practical experience in influencing people, individually and in groups, to accomplish organizational missions effectively; development of communicative skills. Three hours of class and one hour of leadership laboratory per week.

Prerequisite: AS 301 or permission of the instructor.

**AS 311. NATIONAL SECURITY FORCES IN AMERICAN SOCIETY I** Fall — Three credits  
The role and functions of the professional military officer in a democratic society and civil-military interaction; basic framework of defense policy and formulation of defense strategy; development of individual communicative skills. Three hours of class and one hour of leadership laboratory per week.

Prerequisite: AS 302 or permission of the instructor.

**AS 312. NATIONAL SECURITY FORCES IN AMERICAN SOCIETY II** Spring — Three credits  
The problems of developing defense strategy in a rapidly changing technological environment; effective deterrent posture and management of conflict; dynamics and agencies of defense policy making, analyzed through case studies. Three hours of class and one hour of leadership laboratory per week.

Prerequisite: AS 301 or permission of instructor.

#### LEADERSHIP LABORATORY

All AFROTC cadets are required to participate in leadership laboratory one hour per week during each semester. This program involves a progression of experiences designed to develop each student's potential. Areas examined: Air Force customs and courtesies; drill and ceremonies; career opportunities; life and work of an Air Force junior officer.

#### FIELD TRAINING

All candidates for enrollment in the POC will attend field training during one summer. The training, conducted at selected Air Force bases, gives students an opportunity to observe Air Force units and people at work and at home, participate in marksmanship, survival, athletic, leadership training activities, take aircraft orientation flights, and work with contemporaries from other states. Students in the four-year program attend a four-week session, while candidates for the two-year program must complete a six-week program.

#### COMMUNITY SERVICE PROGRAM

The Community Service Program is a cooperative education effort designed to allow students to gain academic credit for services rendered in public and private service agencies located in Northeastern Pennsylvania. The program is open to students majoring in any of the College's academic disciplines and affords an opportunity to gain a second major in Community Service. It is primarily for juniors and seniors in good academic standing. Interested students should contact Dr. James Rodechko or Mrs. Barbara Bellucci at Franklin Hall.

#### Special Degree Programs

##### FIVE-YEAR B.S.-M.S. DEGREE—BIOLOGY MAJOR

During the first six semesters in the combined five-year program leading to bachelor and masters degrees there would be no change in the current bachelor of science requirements.

At the end of the sixth semester (junior year) individuals may elect the 5-year program. The summer between the junior and senior year would be devoted to the initiation of thesis research with a maximum of 3 thesis credits given, or the student may take undergraduate courses required for the B.S. degree (i.e., graduation requirements). The program is constructed so that if a student changes his mind during the fourth year, he may still graduate with the B.S. degree at the end of four years.



SEVENTH SEMESTER		EIGHTH SEMESTER	
Chem. 352	3	Undergraduate Bio.	3
Undergraduate Bio.	3	Graduate Bio.	3
Graduate Bio.	3	Core Electives	9
Core Electives	9	Bio. 397*	1
Bio. 397*	1	Non-Bio. Elective	3
	<hr/> 19		<hr/> 19
NINTH SEMESTER		TENTH SEMESTER	
Graduate Bio.	9	Graduate Bio.	9
Seminar Presentation	0	Seminar Presentation	0
	<hr/> 9		<hr/> 9

### FIVE-YEAR B.S.-M.S. DEGREE— MATHEMATICS MAJOR

This program is designed for those who wish to attain a B.S. and an M.S. degree with a major in Mathematics at Wilkes and will enable them to complete all requirements for both degrees in at most five years.

#### Eligibility

A mathematics major may apply for admission into this combined program during the sixth or the seventh term if he has a minimum average of 3.0 in all mathematics courses numbered above 300 and an overall average of 2.6 at the time of application. A form for this purpose is available from the department chairperson.

#### Degree requirements

All requirements for both degrees must be met. In addition, Math. 511 and 532 are required. No credit shall be counted in both degree programs. Scheduling will be done so that the student will be eligible to receive a B.S. degree at the end of four years.

### INDIVIDUALIZED STUDIES

This program is designed for those capable and motivated students who wish to undertake a course of study that cannot be provided for under any of the normal B.A., B.S. degree programs. The student will be responsible for generating a coherent proposal for a program of studies. This proposal must be approved by an advisor, selected by the student, and then by the Individualized Studies Committee. The program of studies may include courses offered by all departments at Wilkes College. In addition, credit may be assigned for appropriate off-campus study, work and/or travel. Credits may be granted for knowledge or experience obtained prior to enrollment, with approval of the appropriate department and the Individualized Studies Committee.

\* Each student may take only one semester of Bio. 397.

### Requirements

The basic requirement for the degree in General Studies is the accumulation of 120 credits. Although there are no specific course requirements, the spirit of the Wilkes College core curriculum is to be respected.

### INTERNATIONAL STUDIES

This interdisciplinary program, organized around four of the social science departments at Wilkes College, provides a wider and more comprehensive background in world affairs than is available in any one of the individual departments. The B.A. program is designed to open up career opportunities in such diverse fields as the foreign service, other governmental or intergovernmental work, international business, international finance and law. The major requirements of this program follow:

MAJOR REQUIREMENTS	Hours	MAJOR ELECTIVES	Hours
Econ. 101-102	6	Econ. 224, 225, 227, 228, 229	9
Pol. Sci. 101-102	6	Hist. 327, 328, 341, 342, 347,	
Soc. 101 & Anthro. 101	6	348, 356, 361, 362, 363,	
Seminar I & II	6	364, 367, 381, 382	9
Foreign Language	6	Pol. Sci. 222, 223, 224, 225,	
		226, 398 (if topic is relevant)	9
		Soc. 252, 275, 398 (if topic is	
		relevant), Anthro. 270,	
		Anthro. 398 (if topic is relevant)	9
	<hr/> 30		<hr/> 36

CORE: The CORE distribution requirement listed in the College Bulletin shall be fulfilled. The International Studies major requires, however, foreign language competency to the 204 level; no more than six hours of foreign language may be applied to the humanities distribution; History 101-102 also is recommended in the International Studies major.

Total minimum credits required for a B.A. degree — 131.

### MEDICAL TECHNOLOGY

The American Society of Clinical Pathologists and the American Society of Medical Technologists recommend certain requirements for a program of training leading to a B.S. degree. The curriculum offered at Wilkes College follows these recommendations and is presented below. The final year in this program is taken in hospitals approved for such training by the American Society of Clinical Pathologists.

Wilkes College has established a formal affiliation with the Allentown Hospital in Allentown, Pa., the Robert Packer Hospital in Sayre, Pa., Somerset Hospital in Somerville, N.J., the Williamsport Hospital, the Hahnemann Medical College and Hospital, and the



General Hospital in Wilkes-Barre, Pa. Fulfillment of the fourth year requirement at non-affiliated hospitals requires special permission of the department chairperson and of the Academic Standing Committee.

FIRST SEMESTER		SECOND SEMESTER	
Bio. 201M	2½	Bio. 203M	2½
Bio. 202M	2½	Bio. 204M	2½
Chem. 201	4	Chem. 202	4
Eng. 101	3	Eng. 102	3
Math. 105	4	Math. 106	4
P.E. 100	0	P.E. 100	0
		P.E. 105-106	2
	16		18
THIRD SEMESTER		FOURTH SEMESTER	
Bio. 205M	2½	Bio. 207M	2½
Bio. 206M	2½	Bio. 208M	2½
Chem. 221	4	Chem. 230	4
Eng. 151	3	Eng. 152	3
Hist. 101	3	Hist. 102	3
Soc. Sci. Elective	3	Soc. Sci. Elective	3
P.E. 100	0	P.E. 100	0
	18		18
FIFTH SEMESTER		SIXTH SEMESTER	
Bio. 303	3	Bio. 302	3
Bio. 307	3	Bio. 313	3
Comp. Sci. 123	3	Phys. 106	4
Phys. 105	4	Phys. 320	3
Elective	3	Elective	3
	16		16
SEVENTH SEMESTER		EIGHTH SEMESTER	

### PRE-PROFESSIONAL DEGREE PROGRAM

Four years of undergraduate study ordinarily are required to qualify for the Bachelor's degree. Wilkes College makes an exception to this requirement for medical and dental students.

These students may, with the approval of the Academic Standing Committee, satisfy the requirements for the Bachelor's degree by completing three years of undergraduate study at Wilkes and by requesting credit toward the degree for their first two years of work in professional school.

Such students must petition the Academic Standing Committee for permission to graduate, submit official transcripts from the professional school, and pay the usual graduation fees. In all cases the final approval for the granting of the degree rests with the Academic Standing Committee of Wilkes College.

In lieu of the senior academic year on campus, one calendar year of study is required at an accredited school of medical technology.

### WILKES-HAHNEMANN COOPERATIVE MEDICAL EDUCATION PROGRAM IN FAMILY MEDICINE

In an effort to increase the number of family physicians in north-eastern Pennsylvania, Wilkes College and Hahnemann Medical College and Hospital initiated an innovative six-year program in family medicine in September of 1972. Successful completion of the program will enable a student to earn both the Baccalaureate Degree and the Doctor of Medicine Degree concurrently, six years after entering the freshman year at Wilkes College.

In this program a class of approximately 100 students will spend the first two years at Wilkes in a preprofessional health sciences curriculum which will meet the minimum natural science, social science, and communicative skills for potential entry into the medical component of the program. The curriculum is designed with a high degree of flexibility so that a highly motivated student may select a major from a variety of health-related disciplines such as biology, chemistry, physics, medical technology, psychology and sociology-anthropology, as well as such non-related areas as English, history, mathematics, political science and philosophy.

After completion of the two-year Wilkes sequence, the Joint Selection Committee will supervise the selection of approximately twenty-five (25) qualified candidates for entrance into the medical components at Hahnemann. Students who are not selected or do not elect to enter Hahnemann may still pursue a variety of degree options offered by Wilkes.

The next two and one-half years at Hahnemann Medical College will be spent studying the basic and clinical sciences and advanced basic clinical sciences. The final year and a half will be spent in Wilkes-Barre at Wilkes College and the Wilkes-Barre area hospitals (Mercy Hospital, Wilkes-Barre; Nesbitt Memorial Hospital, Kingston; Veterans Administration Hospital, Wilkes-Barre; Wilkes-Barre General Hospital; Wyoming Valley Hospital, Wilkes-Barre), where students will enter the family medicine track of study and complete the Baccalaureate Degree requirements.

Students interested in this accelerated program can make application by obtaining a Wilkes College admission form from the Dean of Admissions.

**Admission to Wilkes College does not imply automatic admission into the Hahnemann Medical Components.**



## PRE-PROFESSIONAL PROGRAMS IN HEALTH SCIENCES — FAMILY MEDICINE<sup>1</sup>

### Wilkes College

FIRST SEMESTER		SECOND SEMESTER	
Bio. 201M	2½	Electives <sup>4</sup>	5-6
Bio. 202M	2½	Chem. 202	4
Chem. 201	4	Math. 106 or 112	4
Math. 105 or 111	4	Eng. 102	3
Eng. 101 <sup>2</sup>	3	P.E. 100	0
P.E. 100	0	P.E. 106 <sup>3</sup> (optional)	1
P.E. 105 <sup>3</sup> (optional)	1	Orientation — Medicine & Health Professions	0
16-17		17-18	

### SUMMER I

Psych. 101-102	6
Eng. 151-152	6

### SECOND YEAR

THIRD SEMESTER		FOURTH SEMESTER	
Bio. 205M	2½	Electives <sup>4</sup>	5-7
Bio. 206M	2½	Chem. 238	4
Chem. 237	4	Phys. 106 or 202	4
Phys. 105 or 201	4	Anthro. 101 or Soc. 101	3
Soc. 101 or Anthro. 101	3	P.E. 100	0
16		OP.E. 100	0
16-17		16-18	

### SUMMER II

Soc. 200	3
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## MEDICAL COMPONENT<sup>1</sup>

### THIRD YEAR

### Hahnemann Medical College, Philadelphia, Pa.

Biochemistry	Physiology	Medical Problems
Developmental Biology (Gross Anatomy, Histology, Neuroanatomy, Genetics)	Microbiology	Human Behavior
	Pharmacology	Clinical Science
	Pathology	Summer Vacation

### FOURTH YEAR

#### Clinical Clerkship Rotations:

Medicine (12 weeks)	Obstetrics/Gynecology (6 weeks)
Surgery (12 weeks)	Psychiatry (6 weeks)
Family Medicine (6 weeks)	Vacation (6 weeks)
Pediatrics (6 weeks)	

### FIFTH YEAR

### Hahnemann Medical College, Philadelphia, Pa.

#### Advanced Basic Science and Clinical Electives

### Wilkes College and Wilkes-Barre Area Hospitals

#### Vacation and/or Free Elective Periods

#### Family Medicine Track Rotations

### SIXTH YEAR

### Wilkes College and Wilkes-Barre Area Hospitals

#### Family Medicine Track Rotations

#### Graduate Level Courses at Wilkes College

### B.A. 398. TOPICS IN BUSINESS ADMINISTRATION

Six credits

This course consists of modules dealing with Accounting, Insurance, Business Administration, Law and Economics. A specialist will teach each segment. It is designed to prepare a person to provide a more efficient delivery of his activity in that the internal organization of his operation can be dealt with in a more knowledgeable manner.

### SOC. 398. TOPICS IN SOCIOLOGY

Three credits

#### Physician, Patient, and Society

This course explores socio-cultural components of illness, quality of health services, social and psychological factors affecting disease processes, problems of socially structured stress, coping with terminal or chronic illness, referral processes and their organization, and strain and problems facing the hospitalized patient.

### P.S. 398. TOPICS IN POLITICAL SCIENCE

Three credits

#### Health Care Delivery, Policy, Politics

Examination of the processes of government at both the Federal and local levels, and of the particular processes involved in the development and implementation of health care policy; critical analysis of the pluralist and elitist interpretations of the political process; discussion of the strategies of the citizen, community organization, and political representatives in policy formation.

## Wilkes College/Pennsylvania College of Optometry Program

The program requires completion of three years at Wilkes College and four years at Pennsylvania College of Optometry.

All students in the program shall satisfy the general core requirements except for Psy. 101-102 and the mathematics, chemistry, physics and biology courses which are required and not optional.

<sup>1</sup>Subject to change without prior notice. Because of the rapid changes in the area of medical education, the changes in the program occur more often and are more extensive than in other Wilkes College programs.

<sup>2</sup>Students may obtain advanced placement in English Composition.

<sup>3</sup>Optional. Students who are not selected to enter Hahnemann after two years or who elect not to participate in the program will be required to take P.E. 105-106 (Hygiene) before graduation from Wilkes.

<sup>4</sup>Electives should include a one-semester course in Speech 101. Remaining electives should be selected from the Sciences, Social Sciences, and Humanities to meet personal needs and/or degree requirements at Wilkes College.



The remaining credits in the first three years may be used for depth education in an academic discipline or for other electives.

A student completing three years at Wilkes College in the program and four years at Pennsylvania College of Optometry will be awarded a Bachelor of Science degree by Wilkes College.

The components of that degree shall be:

1. Completion of 96.5-106.5 credits at Wilkes College
2. Thirty transfer credits in science electives selected from the courses given at Pennsylvania College of Optometry.

A student should declare a major at Wilkes College and progress through the first three years in the major with an academic advisor. If he or she is not chosen to go to Pennsylvania College of Optometry after three years, then the student may complete his last year at Wilkes College and receive a Baccalaureate degree as any other student does who completes an academic program satisfactorily.

A Joint Selection Committee of Wilkes College faculty and the Pennsylvania College of Optometry faculty will select students for entrance into the optometry part of the program.

FIRST SEMESTER		SECOND SEMESTER	
Eng. 101	3	Eng. 102	3
Bio. 201-202	5	Chem. 202	4
Math. 105 or 111	4	Math. 106 or 112	4
Chem. 201	4	Electives	5-6
P.E. 105	1	P.E. 106	1
P.E. 100	0	P.E. 100	0
	<u>17</u>		<u>17-18</u>
		Health Profession Orientation	
THIRD SEMESTER		FOURTH SEMESTER	
Bio. 205-206	5	Bio. 207	2.5
Chem. 237	4	Chem. 238	4
Psych. 101	3	Psych. 102	3
Electives	3-6	Electives	6-8
P.E. 100	0	P.E. 100	0
	<u>15-18</u>		<u>15.5-17.5</u>
FIFTH SEMESTER		SIXTH SEMESTER	
Phys. 201	4	Phys. 202	4
Electives	12-14	Electives	12-14
	<u>16-18</u>		<u>16-18</u>

Total Electives Available..... 38-48 credits  
 Core Requirements (not listed)..... 29 credits  
 Required beyond above: Math. 150 ..... 3 credits  
 Credits available for other courses ..... 6-16 credits

*Four Years at Pennsylvania College of Optometry*

## Wilkes College/Pennsylvania College of Podiatric Medicine Program

The program requires completion of three years at Wilkes College and four years at Pennsylvania College of Podiatric Medicine.

All students in the program shall satisfy the general core requirements except for Psy. 101-102 and the mathematics, chemistry, physics, and biology courses which are required and not optional.

The remaining credits in the first three years may be used for depth education in an academic discipline or for other electives.

A student completing three years at Wilkes College in the program and four years at Pennsylvania College of Podiatric Medicine will be awarded a Bachelor of Science degree by Wilkes College. The components of that degree shall be:

1. Completion of 97-107 credits at Wilkes College.
2. Thirty transfer credits in science electives selected from the courses given at Pennsylvania College of Podiatric Medicine.

A student should declare a major at Wilkes College and progress through the first three years in the major with an academic advisor. If he or she is not chosen to go to Pennsylvania College of Podiatric Medicine after three years, then the student may complete his last year at Wilkes College and receive a Baccalaureate degree as any other student does who completes an academic program satisfactorily. A Joint Selection Committee of Wilkes College faculty and the Pennsylvania College of Podiatric Medicine faculty will select students for entrance into the podiatric medicine part of the program.

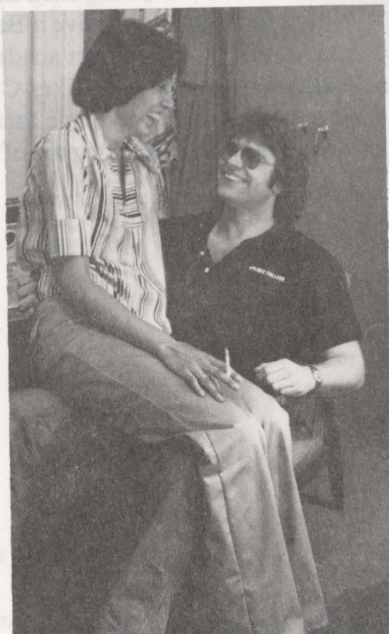
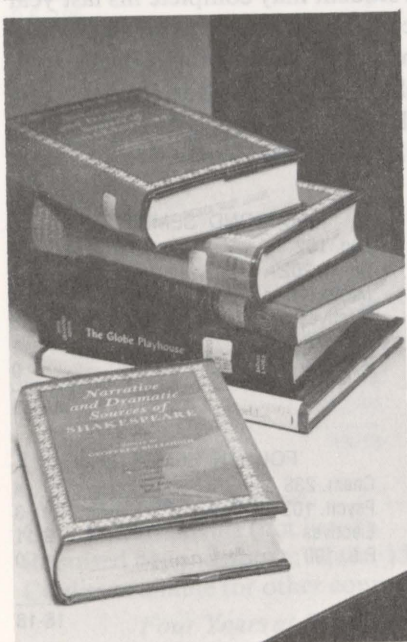
FIRST SEMESTER		SECOND SEMESTER	
Eng. 101	3	Eng. 102	3
Bio. 201-202	5	Chem. 202	4
Math. 105 or 111	4	Math. 106 or 112	4
Chem. 201	4	Electives	5-6
P.E. 105	1	P.E. 106	1
P.E. 100	0	P.E. 100	0
	<u>17</u>		<u>17-18</u>
THIRD SEMESTER		FOURTH SEMESTER	
Bio. 205-206	5	Chem. 238	4
Chem. 237	4	Psych. 102	3
Psych. 101	3	Electives	9-11
Electives	3-6	P.E. 100	0
P.E. 100	0		
	<u>15-18</u>		<u>16-18</u>



FIFTH SEMESTER		SIXTH SEMESTER	
Phys. 105 or 201	4	Phys. 106 or 202	4
Electives	12-14	Electives	12-14
	16-18		16-18

Total Electives Available. . . . . 41-51 credits  
 Core Requirements (not listed). . . . . 29 credits  
 Available for other courses . . . . . 12-22 credits

*Four Years at Pennsylvania College of Podiatric Medicine*



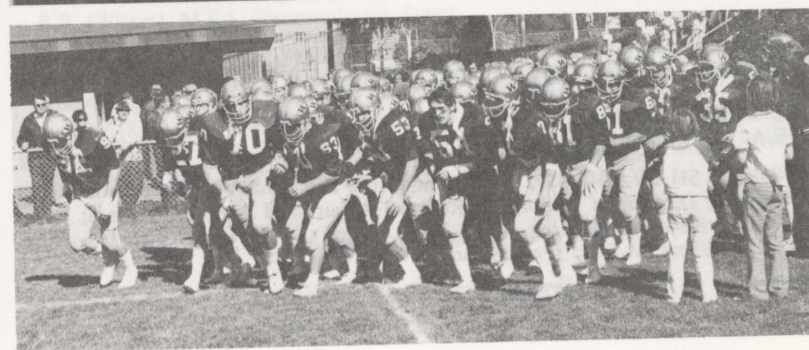
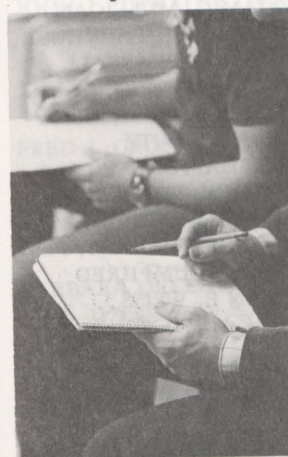
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### Officers

### Administration

### Faculty





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B.S. (Wilkes), C.P.A. (State of Pennsylvania), M.B.A. (Lehigh)  
RICHARD P. SOTER (1976), Dean of Academic Affairs  
B.A. (Northeastern), M.A., Ph.D. (Harvard)  
ANDREW SHAW, JR. (1972), Assistant to the President for management and research; Director of Institute of Regional Affairs and Act 101 Program; Affirmative Action Officer  
B.S. (Wilkes), M.G.A. (Pennsylvania)  
THOMAS F. KELLY (1977), Dean of Administration  
B.A. (Wilkes), M.A. (Lehigh), Ph.D. (Cornell)

CHARLES R. ABATE (1966), Business Manager  
B.S., M.B.A. (Wilkes)

JAMES H. AIKMAN (1976), Director of Development  
B.G.E. (Nebraska, Omaha), M.S. (USC)

EDWARD R. BALTRUCHITIS (1972), Assistant Dean of Men  
B.S. (Mansfield), M.A. (George Washington)

DORIS E. BARKER (1974), Registrar  
(Wyoming Seminary Dean's School of Business)

CARA BERRYMAN, Coordinator, Sordani Art Gallery  
B.S. (Wisconsin/LaCrosse)

RUTH V. BISHOP, Recorder

JOSEPH J. CHISARICK (1970), Comptroller  
B.S. (Wilkes), C.P.A. (State of Pennsylvania)

JOHN J. CHWALEK (1946), Director of Placement  
B.S. (East Tennessee), M.A. (Columbia)

JEANNE CONWAY (1976), Assistant Director of Housing

FRED J. CROOP (1973), Assistant Comptroller  
B.S. (Wilkes)

MILDRED GITTINS, Manager of the Bookstore

BARBARA GREENWOOD, Director, Upward Bound  
B.S. (Pennsylvania State)

LINDA HOBROCK (1969), Assistant Dean of Women  
B.S. (Bowling Green), M.Ed. (Lehigh)

ARTHUR J. HOOVER (1955), Director of Alumni and Community Affairs  
B.S. (Wilkes), M.Ed. (Pennsylvania State)

JOSEPH H. KANNER (1949), Director of Testing Service  
B.A. (Bucknell), M.A. (New School for Social Research)

DAVID A. KISTLER, M.D., Director of College Medical Services —  
Family Practice Center

BETTY KWAK, R.N., College Nurse

JANE KATHLEEN LAMPE (1969), Dean of Women  
B.A. (Rosary), M.A. (Michigan), M.Ed. (Virginia)



EUGENE L. MANGANELLO, Personnel and Systems Coordinator

JOSEPH J. MARCHETTI (1976), Director of Housing  
B.A. (Wilkes)

JOHN F. MEYERS (1967), Director of Continuing Education and  
Graduate Studies  
B.A. (Minnesota), M.A. (Clark)

TERESA B. McDONALD (1972), Director of Federal Programs and Institutional  
Research-IRA  
B.S. (Bloomsburg), M.P.A. (Pennsylvania State)

GEORGE G. PAWLUSH (1969), Assistant Director of Public Relations/Director  
of News and Sports Information  
B.S., M.S. (Wilkes)

GEORGE F. RALSTON (1946), Dean of Student Affairs  
B.A. (North Carolina), M.A. (Columbia)

RICHARD G. RASPEN (1967), Director of Financial Aid  
B.S. (Wilkes), M.Ed. (Bloomsburg), M.B.A. (Wilkes)

J. PHILIP RICHARDS, Director, Sordani Art Gallery  
B.F.A. (Syracuse)

IDA RIGLEY, R.N., College Nurse

RALPH B. ROZELLE (1962) Dean of Health Sciences — Project Director,  
Wilkes-Hahnemann Cooperative Medical Education Program in  
Family Medicine  
B.S. (Wilkes), Ph.D. (Alfred)

DOUGLAS J. RUBINSTEIN (1977), Director of Public Relations  
B.A. (Rhode Island), M.S. (SUNY, Oswego)

ANTHONY J. TURCHETTI (1973), Clinical Coordinator and Associate Dean —  
Wilkes-Hahnemann Cooperative Medical Education Program in Family Medicine  
B.S., M.S. (Pennsylvania State), LL.B. (George Washington), M.D.  
(Hahnemann)

BERNARD J. VINOVRSKI (1971), Assistant Dean of Admissions and  
Financial Aid  
B.S., M.S. (Wilkes)

JOHN P. WHITBY (1947), Dean of Admissions  
B.S. (Bloomsburg), M.S. (Columbia)

DAVID WILLIAMS (1970), Director of Computer Center  
B.S. (Wilkes)

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RICHARD P. SOTER

President  
Dean of Academic Affairs

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LESTER J. TUROCZI	Biology
JAMES J. BOHNING	Chemistry
ROBERT E. WERNER	Commerce and Finance
EUGENE L. HAMMER	Education
UMID R. NEJIB	Engineering
THOMAS N. KASKA	English
BRUCE F. BERRYMAN	Environmental Sciences
WILLIAM H. STERLING	Art
MICHAEL H. SEITZ	Foreign Languages and Literatures
DAVID M. LEACH	History
BING K. WONG	Mathematics & Computer Science
WILLIAM R. GASBARRO	Music
RUTH W. McHENRY	Nursing
DONALD A. HENSON	Philosophy
JOHN G. REESE	Physical Education and Hygiene
FRANCIS J. DONAHOE	Physics
JEAN M. DRISCOLL	Political Science
ROBERT C. RILEY	Psychology
DANIEL R. GOLDMAN	Sociology and Anthropology
ALFRED S. GROH	Theater Arts
DALE A. BUEHLER	Chief Librarian

## Faculty

In alphabetical order, with date of appointment following the name.

ROBERT S. CAPIN (1959), Professor of Commerce and Finance/President  
B.S. (Wilkes), C.P.A. (State of Pennsylvania), M.B.A. (Lehigh)

RICHARD P. SOTER (1976), Professor of Political Science/  
Dean of Academic Affairs  
B.A. (Northwestern), M.A., Ph.D. (Harvard)

\* \* \* \* \*

MICHAEL A. AED (1976), Instructor in Physical Education and Hygiene  
B.S. (Lock Haven State), M.S. (SUNY, Albany)

MARIAN E. ALEXANDER (1972), Assistant Professor of Nursing  
B.A. (New York), M.S. (Simmons)

MARY CHRISTINE ALICHNIE (1974), Instructor in Nursing  
B.S. (Pittsburgh)



- HEATHER M. ARDEN (1973), Assistant Professor of Foreign Languages and Literatures  
B.A. (Michigan State), M.A., Ph.D. (New York)
- CATHRYN J. ARROWOOD (1977), Instructor in Nursing  
B.S., B.A. (Wilkes)
- FRANK G. BAILEY (1986), Associate Professor of Physics  
B.S. (Pennsylvania), M.S. (Stevens), M.A. (Columbia), Ph.D. (Polytechnic Institute of Brooklyn)
- MICHAEL J. BARONE (1964), Associate Professor of Education  
B.S. (Wilkes), M.S. (Bucknell)
- RODGER L. BEARDE (1971), Assistant Professor of Physical Education and Hygiene  
B.S., M.Ed. (West Chester)
- THOMAS G. BECK (1977), Assistant Professor of English  
B.S. (Slippery Rock), M.A. (Ohio)
- MARY W. BEDNARSKI (1977), Associate Professor of Nursing  
B.S. (SUNY, Empire State), M.P.A. (Syracuse)
- ANGEL BELIC (1967), Associate Professor of Foreign Languages and Literatures  
LL.D. (Zagreb), Ph.D. (Rome, Italy)
- FREDERIC E. BELLAS (1961), Professor of Physics  
B.S., M.S., Ph.D. (Pennsylvania State)
- JOSEPH T. BELLUCCI (1967), Associate Professor of Education  
B.S. (Scranton), M.Ed., Ed.D. (Lehigh)
- JAMES P. BERG (1965), Assistant Professor of History  
B.A. (Harvard), B.D., M.Div. (Lutheran Seminary), M.A. (Pennsylvania)
- JOEL BERLATSKY (1970), Associate Professor of History  
B.A. (Carleton), M.A. (Brown), Ph.D. (Northwestern)
- BRUCE F. BERRYMAN (1973), Assistant Professor of Environmental Sciences  
B.S., M.S., Ph.D. (Wisconsin)
- SANDRA L. BLOOMBERG (1971), Assistant Professor of Physical Education and Hygiene  
B.A. (Wilkes), M.A. (New York)
- JAMES J. BOHNING (1959), Professor of Chemistry  
B.S. (Valparaiso), M.S. (New York), Ph.D. (Northeastern)
- GALEN D. BONEBRAKE (1975), Assistant Professor of Aerospace Studies  
B.S. (Indiana), M.S. (Rensselaer)
- FLORENCE R. BOURCIER (1973), Assistant Professor of Nursing  
B.S.N., M.S. (Boston)
- DALE A. BUEHLER (1962), Associate Professor of Library Science  
B.A. (Franklin & Marshall), M.S. (Drexel Institute of Technology)

- HENRY R. CASILLI (1971), Assistant Professor of Art  
B.S. (Edinboro), M.A. (Pennsylvania State)
- CECILE B. CHAMPAGNE (1975), Assistant Professor of Nursing  
B.S. (Salve Regina), M.S. (Boston)
- RICHARD B. CHAPLINE (1959), Associate Professor of Music  
B.S., M.S. (Juilliard)
- CARL J. CHARNETSKI (1976), Assistant Professor of Psychology  
B.A. (Wilkes), M.A., Ph.D. (Temple)
- PHYLLIS S. CHENG (1972), Assistant Professor of Library Science  
B.A. (Wilkes)
- CHESTER E. COLSON (1958), Professor of Art  
B.S. (Massachusetts School of Art), M.S. (Columbia)
- JOHN A. COONEY (1976), Assistant Professor of Business Administration  
B.S. (Wilkes), M.L. (Pittsburgh)
- HAROLD E. COX (1963), Professor of History  
B.A. (William and Mary), M.A., Ph.D. (Virginia)
- DAVID F. CURTIS (1977), Assistant Professor of English  
B.A. (Rhode Island), Ph.D. (Brown)
- FRANCK G. DARTE, II (1968), Professor of Education  
B.S. (Yale), M.S., Ed.D. (Pennsylvania)
- LORNA C. DARTE (1969), Assistant Professor of Library Science  
B.A. (George Washington), M.S. (Drexel Institute of Technology)
- JAMES G. DeCOSMO (1962), Assistant Professor of Mathematics and Computer Science  
B.S. (West Chester), M.A. (Adelphi)
- BARBARA G. DEMORY (1976), Assistant Professor of Sociology and Anthropology  
B.A. (California State), M.A., Ph.D. (California, Berkeley)
- ROBERT DeYOUNG (1960), Associate Professor of Economics  
B.S. (Rhode Island), M.A. (Columbia)
- EUGENE S. DOMZALSKI (1969), Assistant Professor of Physical Education and Hygiene  
B.S. (Wyoming), M.S. (Wilkes)
- FRANCIS J. DONAHOE (1964), Professor of Physics  
B.A. (LaSalle), Ph.D. (Pennsylvania)
- ROBERT B. DOTY, (1975), Assistant Professor of Biology  
B.S. (Maryland), M.S. (Florida), Ph.D. (Pennsylvania State)
- JEAN M. DRISCOLL (1973), Professor of Political Science  
A.B., M.A. (Michigan), Ph.D. (Northwestern)
- LILLIAN W. DUFFY (1976), Instructor in Nursing  
B.S. (Misericordia)



- BERENICE D'VORZON (1968), Associate Professor of Art  
B.F.A. (Cranbrook Academy of Art), M.A. (Columbia)
- BOYD L. EARL (1963), Associate Professor of Mathematics and  
Computer Science  
B.S. (Wilkes), M.S. (Bucknell)
- SHIRLEY EATON (1973), Instructor in Foreign Languages and Literatures  
B.S. (Boston), M.A. (Middlebury)
- GEORGE F. ELLIOT (1950), Professor of Economics  
B.A. (Montclair State), M.A. (Clark)
- THEODORE J. ENGEL (1966), Associate Professor of Business Administration  
B.B.A., M.A. (Miami)
- JOHN E. ERICKSON (1974), Assistant Professor of Biology  
B.S., M.S. (North Carolina State), Ph.D. (Washington)
- MAHMOUD H. FAHMY (1968), Associate Professor of Education  
B.A. (Alexandria, Egypt), M.A. (Columbia), Ph.D. (Syracuse)
- H. CUTLER FALL (1969), Assistant Professor of Music  
B.A. (Brown), M.A. (Yale), Ph.D. (California State, Santa Barbara)
- WELTON FARRAR (1948), Professor of Economics  
B.S., M.S. (Pennsylvania)
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McClintock Hall — Women's Residence



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Sociology . . . . .	132		
Spanish . . . . .	93		

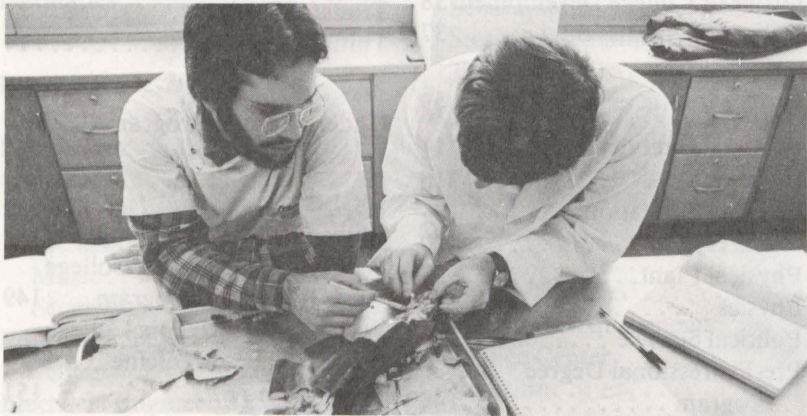


SOURCES OF INFORMATION

Requests for information should be directed to one of the following offices at Wilkes College, Wilkes-Barre, PA 18703:

TELEPHONE: (717) 824-4651  
TWX: 510-658-3297

Office	Extension
President.....	211
Academic Affairs, Dean .....	213
Admissions .....	222
Alumni Relations .....	207
Business Office .....	297
Career Counseling and Placement .....	244
Continuing Education .....	303
Dean of Student Affairs .....	234
Development .....	207
Financial Aid.....	224
Housing Office .....	352
Infirmary .....	435
Public Relations .....	205
Records and Transcripts .....	215
Registrar .....	218
Security.....	494
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Books and Supplies .....	15	Engineering .....	15
Graduation .....	16	Mathematics .....	15
Health Care .....	16	Science .....	15
Health Insurance .....	16	Social Sciences .....	15
Medical Technology .....	16	Student Affairs .....	15



## *College Calendar*

### **FALL SEMESTER — 1977**

Classes Begin	Monday, August 29—8 a.m.
Labor Day Recess	Friday, September 2—5 p.m.
Classes Resume	Tuesday, September 6—8 a.m.
Free Day	Tuesday, November 8
Senior Registration	November 9
Junior Registration	November 10-11
Sophomore Registration	November 14-15
Freshman Registration	November 17-18
Thanksgiving Recess	Tuesday, November 22—10 p.m.
Classes Resume	Monday, November 28—8 a.m.
Classes End	Friday, December 9—5 p.m.
Final Examinations Begin	Monday, December 12—8:30 a.m.
Final Examinations End	Wednesday, December 21—4:30 p.m.

### **SPRING SEMESTER — 1978**

Classes Begin	Monday, January 16—8 a.m.
Easter Vacation	Wednesday, March 15—10 p.m.
Classes Resume	Monday, March 27—8 a.m.
Senior Registration	April 3
Junior Registration	April 4-5
Sophomore Registration	April 10—11
Classes End	*Tuesday, May 2—10 p.m.
Final Examinations Begin	Friday, May 5—8:30 a.m.
Final Examinations End	Saturday, May 13—4:30 p.m.
Commencement	Sunday, May 21

\*Monday and Tuesday follow Thursday and Friday Schedule



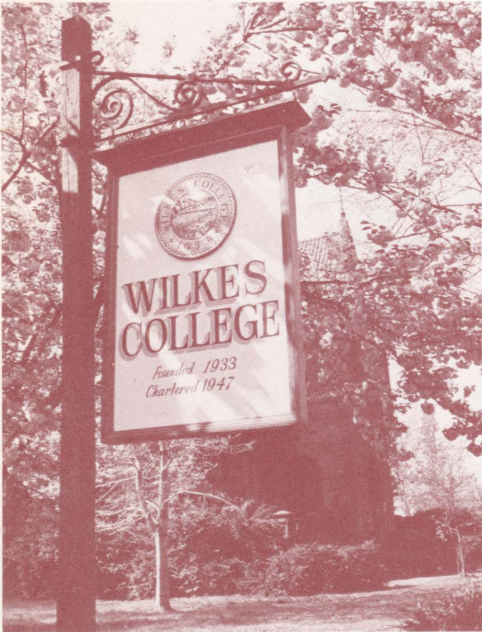
1977  
Fall  
Semester

A black and white photograph of a campus scene. In the background, a two-story brick building with many windows is visible. A group of about six students is standing on a path in front of the building. To the right, another group of students is gathered near a set of stairs. Large, leafy trees frame the scene on both sides. The ground is covered with fallen leaves.

# WILKES COLLEGE



Division Of Continuing Education  
**Wilkes College**  
170 South Franklin Street  
Wilkes-Barre, Pa. 18703



"Small enough to know your needs  
and large enough to meet them"

**1977  
Fall  
Semester**

**WILKES  
COLLEGE**



# WILKES COLLEGE FALL SEMESTER 1977

## — GENERAL INFORMATION —

### Calendar for fall Semester, 1977

#### Registration for Evening College, Part-Time, and Graduate Students:

Thursday, Aug. 25 .....8:30 a.m. to 8 p.m.  
Friday, Aug. 26 .....8:30 a.m. to 8 p.m.  
Monday, Aug. 29 .....Classes begin at 8 a.m.  
Friday, Sept. 2 .....Labor Day recess begins at 5 p.m.  
Tuesday, Sept. 6 .....Classes resume at 8 a.m.  
Monday, Nov. 7 .....Fall recess begins at 10 p.m.  
Wednesday, Nov. 9 .....Classes resume at 8 a.m.  
Tuesday, Nov. 22 ....Thanksgiving recess begins at 10 p.m.  
Monday, Nov. 28 .....Classes resume at 8 a.m.  
Monday, Dec. 12 through  
Wednesday, Dec. 21 .....Final Examinations

### Expenses

All charges must be paid at the time registration forms are processed.

#### Undergraduate:

Undergraduate students who register for fewer than 12 credits pay \$70 per credit.

Undergraduate students who register for 12 or 13 credits pay \$90 per credit.

Undergraduate students who register for more than 13 but no more than 18 credits pay a flat tuition fee of \$1350 per semester. (Those students who take more than 18 credits pay \$90 for each credit above 18.)

#### Graduate:

All graduate students pay \$80 per credit.

### Financial Aid

Various financial aid programs are available to part-time and full-time students. Inquiries about financial aid should be made to Richard Raspen, Director of Financial Aid, Chase Hall, 184 South River Street, Wilkes-Barre, Pennsylvania 18703.

### Withdrawal

An evening college, part-time, or graduate student may withdraw, without prejudice, from any course at any time during the first 10 weeks of the semester, providing that he or she gives verbal or written notice to this effect to the instructor and to the Director of Continuing Education and Graduate Studies within this 10-week period.

Students in good standing who withdraw from courses or from the college will receive a refund of tuition under the following conditions: During the first six weeks of the semester, one-half of the tuition will be refunded upon request to the Director of Continuing Education and Graduate Studies, if the withdrawal is made for adequate and satisfactory reasons. After the first six weeks, no refunds are allowed and the student is obligated for the full costs of the term. No student who is suspended or expelled shall be entitled to any refunds.

Application for admission to Wilkes College as an evening college, part-time, or graduate student should be made to the Division of Continuing Education and Graduate Studies, 170 So. Franklin Street, Wilkes-Barre, Pennsylvania 18703.

### Admissions

Bachelor of Arts degrees are offered in the following subject areas:

Anthropology	Individualized Studies
Art	International Relations
Biology	Mathematics
Chemistry	Music
Computer Science	Philosophy
Economics	Physics
Elementary Education	Political Science
English	Psychology
English/Theater Arts	Social Science/Urban Affairs
Environmental Sciences	Sociology
Foreign Language	Sociology-Anthropology
History	

### Degree Programs

Bachelor of Science degrees are offered in the following subject areas:

Biology	Engineering
Chemistry	Environmental Sciences
Commerce and Finance	Mathematics
(a) Accounting	Medical Technology
(b) Business Administration	Music Education
(c) Business Education	Nursing
Computer Science	Physics

Master of Science degrees are offered in the following subject areas:

Biology	Mathematics
Business Administration	Physics
Chemistry	

Master of Science in Education degrees are offered in the following subject areas:

Biology	History
Chemistry	Mathematics
Education	Physics
Elementary Education	Special Education
English	

(Wilkes also offers a "Certificate of Achievement" to undergraduate students in the field of Business Administration who earn 42 hours of credit in Evening College and Summer School programs with at least 24 hours in Business Administration and 18 hours in general education.)



Tuesday, Nov. 22 ....Thanksgiving recess begins at 10 p.m.  
Monday, Nov. 28 .....Classes resume at 8 a.m.  
Monday, Dec. 12 through  
Wednesday, Dec. 21 .....Final Examinations

## Expenses

All charges must be paid at the time registration forms are processed.

### Undergraduate:

Undergraduate students who register for fewer than 12 credits pay \$70 per credit.

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All graduate students pay \$80 per credit.

## Financial Aid

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## Withdrawal

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Students in good standing who withdraw from courses or from the college will receive a refund of tuition under the following conditions: During the first six weeks of the semester, one-half of the tuition will be refunded upon request to the Director of Continuing Education and Graduate Studies, if the withdrawal is made for adequate and satisfactory reasons. After the first six weeks, no refunds are allowed and the student is obligated for the full costs of the term. No student who is suspended or expelled shall be entitled to any refunds.

## Change Of Schedule

Occasionally a change in the course schedule becomes necessary. Such a change may mean the cancellation of one course or the addition of another. The College reserves the right to cancel or reschedule any course due to insufficient enrollment or any other reason. When possible, any change in the course schedule will be posted during registration. Students who have registered for courses that are subsequently cancelled or rescheduled will be notified as promptly as possible.

## The Library

The Eugene Shedden Farley Library is open to all Wilkes students. Students may borrow books from the Library by presenting their College identification cards. Hours are posted at the beginning of each academic session.

## The Bookstore

Books, stationery and supplies may be purchased at the College Bookstore, located in the lower level of Pickering Hall. They must be paid for at the time of purchase. The Bookstore is open from 8:30 a.m. to 4:30 p.m. Monday through Friday.

Art	International Relations
Biology	Mathematics
Chemistry	Music
Computer Science	Philosophy
Economics	Physics
Elementary Education	Political Science
English	Psychology
English/Theater Arts	Social Science/Urban Affairs
Environmental Sciences	Sociology
Foreign Language	Sociology-Anthropology
History	

Bachelor of Science degrees are offered in the following subject areas:

Biology	Engineering
Chemistry	Environmental Sciences
Commerce and Finance	Mathematics
(a) Accounting	Medical Technology
(b) Business Administration	Music Education
(c) Business Education	Nursing
Computer Science	Physics

Master of Science degrees are offered in the following subject areas:

Biology	Mathematics
Business Administration	Physics
Chemistry	

Master of Science in Education degrees are offered in the following subject areas:

Biology	History
Chemistry	Mathematics
Education	Physics
Elementary Education	Special Education
English	

(Wilkes also offers a "Certificate of Achievement" to undergraduate students in the field of Business Administration who earn 42 hours of credit in Evening College and Summer School programs with at least 24 hours in Business Administration and 18 hours in general education.)

Wilkes is accredited by the Department of Public Instruction of the State of Pennsylvania and the Middle States Association of Colleges and Secondary Schools. The Chemistry curriculum has been certified by the American Chemical Society.

The Graduate programs are approved by the Pennsylvania State Department of Education.

For further information write or call:

John F. Meyers, Director  
Division of Continuing Education and Graduate Studies  
Wilkes College  
170 South Franklin Street  
Wilkes-Barre, Pennsylvania 18703  
Phone: 824-4651 Ext. 303 (After 4:30 p.m., 824-4656)

## Accreditation

## Information



# Undergraduate Division

(TIMES LISTED IN LIGHT FACE REPRESENT A.M.; BOLD FACE P.M.)

Course	Description	Room	Day & Hour	Credits
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## ACCOUNTING:

Acct. 101E	Elementary Accounting I	Par. 35	W 6:30-9:30	3
Acct. 102E	Elementary Accounting II	Par. 35	M 6:30-9:30	3
Acct. 111E	Intermediate Accounting I	Par. 45	Th 6:30-9:30	3
Acct. 221E	Taxes I	Par. 35	Th 6:30-9:30	3
Acct. 231E	Auditing	Par. 45	M 6:30-9:30	3
Acct. 241E	Advanced Accounting I (Pre: Acct. 112)	Par. 45	W 6:30-9:30	3

## ART:

Art 101E	Experiencing Art I	SLC 105	W 6:00-9:00	3
Art 214E	Photography I	SLC 9-117	M 6:30-10:00	3
Art 214E-2	Photography I	SLC 9-117	W 6:30-10:00	3
Art 280E	Topics in Art: Hand-Build Ceramics	C.G. 102	M 6:30-9:30	3
Art 280E-2	Topics in Art: Batik	SLC 206	W 6:00-9:00	3
Art 280E-3	Topics in Art: Italian Renaissance Art History	SLC 1	T-Th 6:30-8:00	3

## BIOLOGY:

Bio. 101E	Biological Science I	SLC 207	Th 6:30-9:30	3
Bio. 397E	Seminar (Pre: Approval of department chairman)	SLC 380	T 6:30-8:30	1
Bio. 402	Cell Biology	TBA	TBA	3
Bio. 432	Advanced Physiology (Pre: Approval of instructor)	TBA	TBA	3

## BROADCASTING:

Bdcst. 101E	Introduction to Broadcasting	DDD 220	M 6:30-9:30	3
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## BUSINESS ADMINISTRATION:

B.A. 101E	Introduction to the Private Sector of Business	Par. 23	T 6:30-9:30	3
B.A. 209E	Business Correspondence and Reports	Par. 35	T 6:30-9:30	3
B.A. 225E	Managerial Finance	Par. 23	Th 6:30-9:30	3
B.A. 231E	Business Law—Introduction, Contracts and Sales	Par. 43	T 6:30-9:30	3
B.A. 241E	Life Insurance	Par. 23	M 6:30-9:30	3
B.A. 251E	Principles of Management	Par. 43	M 6:30-9:30	3
B.A. 261E	Principles of Retailing	SLC 133	W 6:30-9:30	3

## BUSINESS EDUCATION:

(TIMES LISTED IN LIGHT FACE REPRESENT A.M.; BOLD FACE P.M.)

Course	Description	Room	Day & Hour	Credits
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## FOREIGN LANGUAGES AND LITERATURES:

Span. 306E	Twentieth Century Spanish Literature since 1939 (Students must have consent of instructor before registering.)	SLC 147	M 6:30-9:30	3
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## HISTORY:

Hist. 101E	World Civilization I	SLC 270	T-Th 6:30-8:00	3
Hist. 313E	History of Science I	SLC 160	W 6:30-9:30	3
Hist. 353E	Early Modern Europe I	SLC 209	T 6:30-9:30	3
Hist. 363E	History of Modern China	SLC 133	Th 6:30-9:30	3
Hist. 381E	History of Latin America	SLC 270	W 6:30-9:30	3
Hist. 398E	Topics: Contemporary America (1945-Present)	SLC 160	M 6:30-9:30	3

## JOURNALISM:

Jour. 101E	Basic News Writing Fee: \$10	Par. 25	M 6:30-9:30	3
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## MUSIC:

Mus. 101E	Introduction to the Materials and Literature of Music I	DDD 101	T 6:30-9:30	3
Mus. 111B	Piano Class I (Non-majors)	DDD 219	M 7:00-9:00	2
Mus. 113B	Piano Class III (Non-majors)	DDD 219	M 7:00-9:00	2

Applied Music Note: It is important that all students who register for Applied Music through the Evening College consult with Mr. William Gasbarro, Music Department Chairman, before completing their registrations.

## PHILOSOPHY:

Phil. 101E	Introduction to Philosophy	SLC 311	Th 6:30-9:30	3
Phil. 152E	Introduction to Logic	SLC 311	M 6:30-9:30	3
Phil. 201E	Origins of Western Thought: Socrates to Augustine	SLC 311	W 6:30-9:30	3
Phil. 302E	Studies in Modern Philosophy: Kant	TBA	TBA	3

## PHYSICS:

Phys. 101E	Physical Science I	SLC 204	Th 6:30-9:30	3
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# Graduate Division

(TIMES LISTED IN LIGHT FACE REPRESENT A.M.; BOLD FACE P.M.)

Course	Description	Room	Day & Hour	Instructor
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## BIOLOGY:

Bio. 402	Cell Biology	TBA	TBA	Ogren
Bio. 432	Advanced Physiology	TBA	TBA	Hayes

## BUSINESS ADMINISTRATION:

Acct. 503	Managerial Accounting	Par. 53	Th 6:30-9:30	Hall
B.A. 502	Management Science	Par. 53	W 6:30-9:30	Engel
B.A. 514	Market Research and Experimentation (Seminar)	Par. 34	M 6:30-9:30	Staff
B.A. 522	Quantitative Aspects of Management	Par. 33	Th 6:30-9:30	Williams
B.A. 595	Independent Research	TBA	TBA	Staff
Econ. 506	Labor-Management Economics	Par. 53	M 6:30-9:30	Werner

## CHEMISTRY:

Chem. 341	Elementary Physical Chemistry Laboratory Fee: \$20 (Pre: Permission of instructor)	SLC 220 SLC 256	M-T-Th 9:00 W 8:00-11:00	Swain
Chem. 401	Applied Chemistry I (Pre: Four semesters of college-level chemistry or permission of the instructor)	TBA	TBA	Stine
Chem. 411	Advanced Inorganic Chemistry	TBA	TBA	Faut
Chem. 440	Quantum Chemistry	TBA	TBA	Swain
Chem. 451	Biochemistry I (Pre: Chem. 238 or equivalent)	TBA	TBA	Staff

## EDUCATION:

Ed. 430	Developmental Reading (Pre: Ed. 405 or equivalent)	SLC 215	Th 6:00-9:00	Staff
Ed. 510	Psychological Foundations of Education	SLC 127	W 6:00-9:00	Staff
Ed. 513	Comparative Foundations of Education	SLC 133	T 6:00-9:00	Staff
Ed. 514	Historical Foundations of Education	SLC 160	Th 6:00-9:00	Staff
Ed. 520	Tests and Measurements	SLC 204	M 6:00-9:00	Staff
Ed. 526	Educational Research II	SLC 215	M 6:00-9:00	Staff
Ed. 532A	PEE: Mathematics	SLC 127	T 6:00-9:00	Staff



# BUSINESS ADMINISTRATION:

B.A. 101E	Introduction to the Private Sector of Business	Par. 23	T 6:30-9:30	3
B.A. 209E	Business Correspondence and Reports	Par. 35	T 6:30-9:30	3
B.A. 225E	Managerial Finance	Par. 23	Th 6:30-9:30	3
B.A. 231E	Business Law—Introduction, Contracts and Sales	Par. 43	T 6:30-9:30	3
B.A. 241E	Life Insurance	Par. 23	M 6:30-9:30	3
B.A. 251E	Principles of Management	Par. 43	M 6:30-9:30	3
B.A. 261E	Principles of Retailing	SLC 133	W 6:30-9:30	3

# BUSINESS EDUCATION:

B.E. 105E	Elementary Shorthand	Par. 25	T-Th 4:30-6:15	2
B.E. 107E	Elementary Typewriting Fee: \$15	Par. 25	T-Th 7:00-8:45	2

# ECONOMICS:

Econ. 101E	Principles of Economics I	SLC 127	M 6:30-9:30	3
Econ. 102E	Principles of Economics II	Par. 53	T 6:30-9:30	3
Econ. 201E	Money and Banking	Par. 23	W 6:30-9:30	3
Econ. 223E	Collective Bargaining	Par. 45	T 6:30-9:30	3
Econ. 225E	International Trade	Par. 34	Th 6:30-9:30	3
Econ. 227E	Economic Geography of North America, Europe and the Soviet Union	Par. 43	W 6:30-9:30	3
Econ. 229E	Comparative Economic Systems	Par. 34	T 6:30-9:30	3
Econ. 231E	Applied General Statistics Fee: \$15	Par. 33	M 6:30-9:30	3

# EDUCATION:

Ed. 351E	Educational Measurements (Pre: Ed. 202)	SLC 204	M 6:00-9:00	3
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# ENGINEERING:

E.E. 211A	Circuit Theory I	SLC 127	M-W 5:00-6:30	3
E.E. 381A	Advanced Engineering Laboratory I (Pre: Senior standing) Fee: \$30	SLC 222	Sat. 9:00-4:00	3

# ENGLISH:

Eng. 101E	Composition I	SLC 204	W 6:30-9:30	3
Eng. 102E	Composition II	SLC 207	W 6:30-9:30	3
Eng. 151E	Western World Literature I (Pre: Eng. 102 or equivalent in composition)	SLC 216	M 6:30-9:30	3
Eng. 203	Creative Writing	SLC 270	T-Th 6:30-8:00	3
Eng. 203E	Creative Writing	TBA	TBA	3
Eng. 204A	History of English Language	DDD 101	M-W 4:00-5:30	3
Eng. 470E	Studies in Modern British Literature	SLC 160	T 6:30-9:30	3

# ENVIRONMENTAL SCIENCES:

E.S. 101E	Introductory Earth Science Laboratory Fee: \$15	SLC 204 TBA	T 6:00-9:30	3
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# PHILOSOPHY:

Phil. 101E	Introduction to Philosophy	SLC 311	Th 6:30-9:30	3
Phil. 152E	Introduction to Logic	SLC 311	M 6:30-9:30	3
Phil. 201E	Origins of Western Thought: Socrates to Augustine	SLC 311	W 6:30-9:30	3
Phil. 302E	Studies in Modern Philosophy: Kant	TBA	TBA	3

# PHYSICS:

Phys. 101E	Physical Science I	SLC 204	Th 6:30-9:30	3
Phys. 311E	Mechanics I (Pre: Phys. 202 and Math. 212)	TBA	TBA	3
Phys. 361E	Atomic Physics Laboratory Fee: \$20	SLC 42 SLC 42	W 6:30-9:30 TBA	3

# POLITICAL SCIENCE:

P.S. 101E	Political Science I	SLC 209	M 6:30-9:30	3
P.S. 231E	Constitutional Law I	SLC 209	W 6:30-9:30	3

# PSYCHOLOGY:

Psy. 101E	General Psychology I	SLC 347	Th 6:30-9:30	3
Psy. 398E	Topics in Psychology: Growth and Development of Exceptional Children	SLC 347	M 6:30-9:30	3

# READING:

Reading for Secondary and College Students and Adults	Ross Hall	TBA	0
NOTE: Students who are interested in this course should contact the Reading Improvement Center for information on registration.			

# SOCIOLOGY AND ANTHROPOLOGY:

Anth. 271E	Physical Anthropology	SLC 133	M 6:30-9:30	3
Soc. 101E	Introduction to Sociology	Par. 56	M 6:30-9:30	3
Soc. 251E	Fields of Social Work (Pre: Soc. 101 or Anth. 101 or Psy. 101 or Psy. 102 or approval of instructor)	SLC 209	Th 6:30-9:30	3
Soc. 398E	Topics: Sociology of Education	Par. 33	W 6:30-9:30	3
Soc. 398E-2	Topics: Sociology of Sex Roles	SLC 207	T 6:30-9:30	3

# SPEECH:

Spch. 101E	Fundamentals of Speech	SLC 215	W 6:00-8:00	2
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# THEATER ARTS:

TA 398A	Topics: History and Art of Film	CPA	M 7:00-9:00 T 4:00-6:00	3
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# EDUCATION:

Ed. 430	Developmental Reading (Pre: Ed. 405 or equivalent)	SLC 215	Th 6:00-9:00	Staff
Ed. 510	Psychological Foundations of Education	SLC 127	W 6:00-9:00	Staff
Ed. 513	Comparative Foundations of Education	SLC 133	T 6:00-9:00	Staff
Ed. 514	Historical Foundations of Education	SLC 160	Th 6:00-9:00	Staff
Ed. 520	Tests and Measurements	SLC 204	M 6:00-9:00	Staff
Ed. 526	Educational Research II	SLC 215	M 6:00-9:00	Staff
Ed. 532A	PEE: Mathematics	SLC 127	T 6:00-9:00	Staff
Ed. 532D	PEE: Social Studies	SLC 127	Th 6:00-9:00	Staff
Ed. 534	Elementary School Curriculum (Pre: Fifteen graduate credits)	SLC 215	W 4:00-7:00	Staff
Ed. 563	Remediation of Learning Disabilities II (Pre: Ed. 562)	SLC 147	T 6:00-9:00	Staff
Ed. 570	Supervision of Instruction	SLC 215	W 7:00-10:00	Staff

# ENGLISH:

Eng. 301	Literary Criticism	Kby. 102	M-W 4:00-5:30	Kaska
Eng. 360	Victorian Prose and Poetry	Kby. 102	T-Th 4:00-5:30	Terry
Eng. 470	Studies in Modern British Literature	SLC 160	T 6:30-9:30	Rizzo

# HISTORY:

Hist. 321A	American Social and Intellectual History I	SLC 318	T-Th-F 1:00	Rodechko
Hist. 351A	Medieval Europe	SLC 216	M-W-F 10:00	Berg
Hist. 353E	Early Modern Europe I	SLC 209	T 6:30-9:30	Berlatsky
Hist. 355A	Europe in the Nineteenth Century	SLC 316	M-W-F 12:00	Shao
Hist. 363E	History of Modern China	SLC 133	Th 6:30-9:30	Shao
Hist. 398E	Topics: Contemporary America (1945-present)	SLC 160	M 6:30-9:30	Cox

# MATHEMATICS:

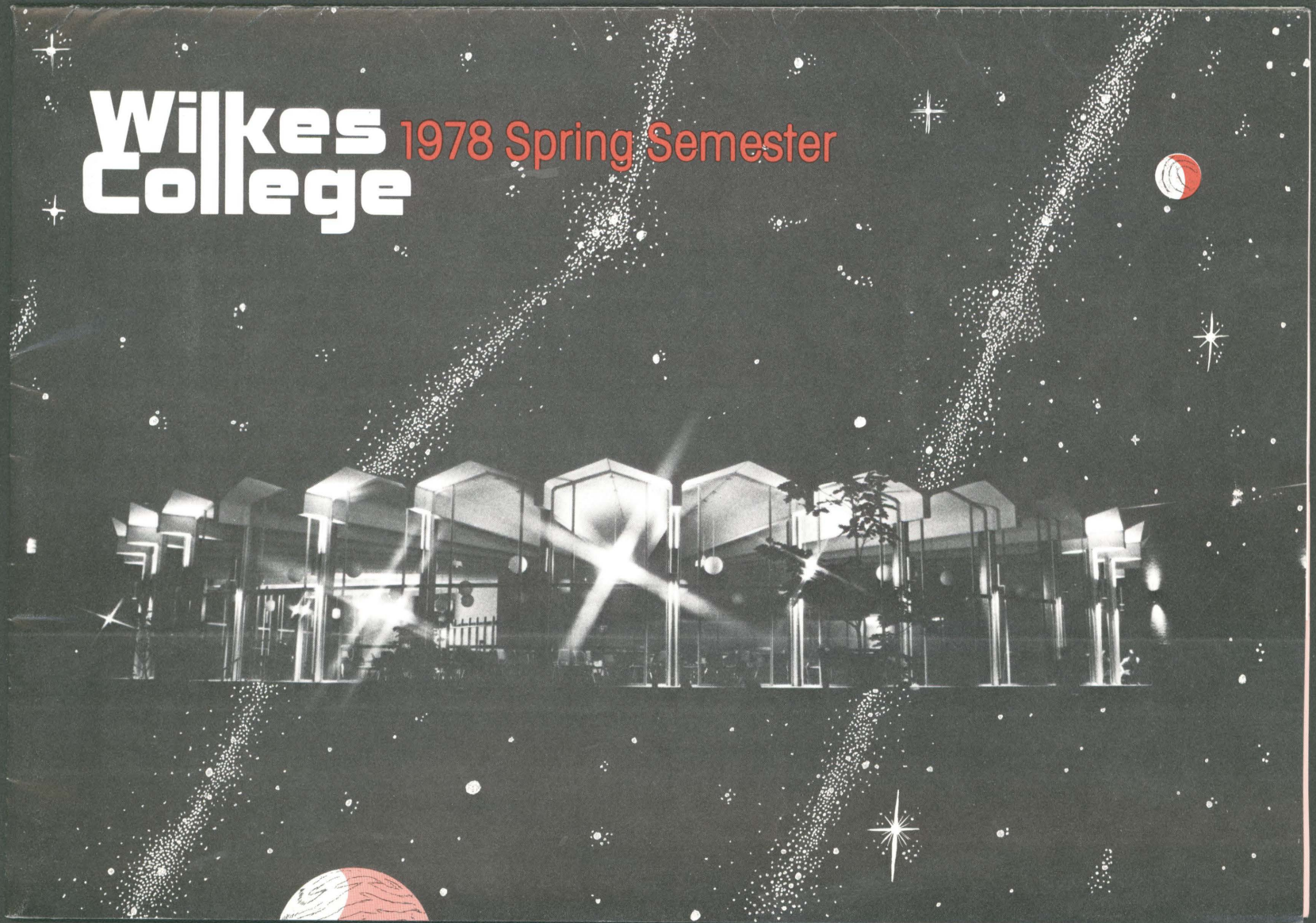
Math. 311A	Functions of a Real Variable	SLC 405	M-W 4:00-6:00	Sauers
Math. 334A	Linear Algebra	SLC 409	M-W-F 1:00	Wong
Math. 351A	Probability & Mathematical Statistics I	SLC 411	M-W-F 11:00	Merrill

# PHYSICS:

Phys. 311	Mechanics I	TBA	TBA	Donahoe
Phys. 361	Atomic Physics Laboratory Fee: \$20	SLC 42 SLC 42	W 6:30-9:30 TBA	Bailey
Phys. 402	Topics in Mathematical Physics II	TBA	TBA	Bellas

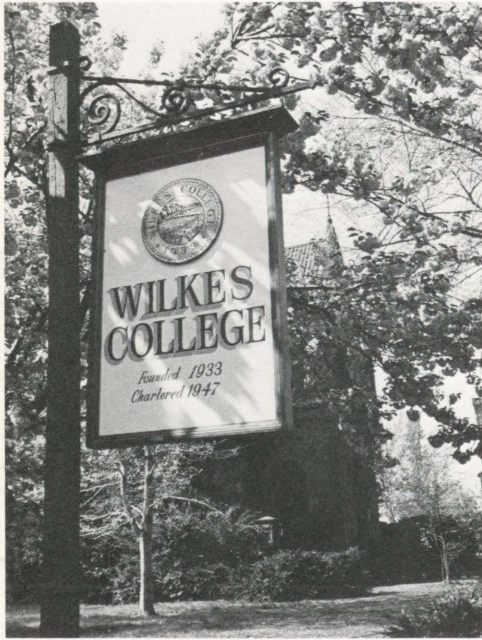


**Wilkes** 1978 Spring Semester  
**College**





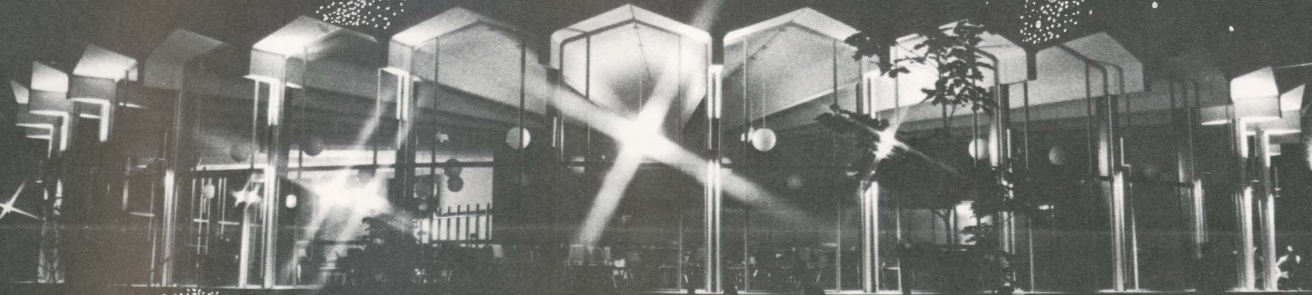
Division Of Continuing Education  
**Wilkes College**  
16 South River Street  
Wilkes-Barre, Pa. 18703



"Small enough to know your needs  
and large enough to meet them"

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WILKES-BARRE, PA.  
PERMIT NO. 355

# Wilkes College 1978 Spring Semester





# WILKES COLLEGE SPRING SEMESTER 1978

## — GENERAL INFORMATION —

### Calendar for Spring Semester 1978

Registration for Evening College, Part-Time, and Graduate Students:

Thursday, Jan. 12 ..... 8:30 a.m. to 8:00 p.m.  
Friday, Jan. 13 ..... 8:30 a.m. to 8:00 p.m.

Monday, January 16 ..... Classes begin at 8:00 a.m.

Wednesday, March 15 .. Easter recess begins at 10:00 p.m.

Monday, March 27 ..... Classes resume at 8:00 a.m.

\*Tuesday, May 2 ..... Classes end

Friday, May 5 thru Saturday, May 13 .... Final examinations

\*Monday and Tuesday, May 1 and May 2, follow  
Thursday and Friday schedules.

### Expenses

All charges must be paid at the time registration forms are processed.

#### Undergraduate:

Undergraduate students who register for fewer than 12 credits pay \$70 per credit.

Undergraduate students who register for 12 or 13 credits pay \$90 per credit.

Undergraduate students who register for more than 13 but no more than 18 credits pay a flat tuition fee of \$1350 per semester. (Those students who take more than 18 credits pay \$90 for each credit above 18.)

#### Graduate:

All graduate students pay \$80 per credit.

### Financial Aid

Various financial aid programs are available to part-time and full-time students. Inquiries about financial aid should be made to Richard Raspen, Director of Financial Aid, Chase Hall, 184 South River Street, Wilkes-Barre, Pennsylvania 18703.

### Withdrawal

An evening college, part-time, or graduate student may withdraw, without prejudice, from any course at any time during the first 10 weeks of the semester, providing that he or she gives verbal or written notice to this effect to the instructor and to the Director of Continuing Education and Graduate Studies within this 10-week period.

Students in good standing who withdraw from courses or from the college will receive a refund of tuition under the following conditions: During the first six weeks of the semester, one-half of the tuition will be refunded upon request to the Director of Continuing Education and Graduate Studies, if the withdrawal is made for adequate and satisfactory reasons. After the first six weeks, no refunds are allowed and the student is obligated for the full costs of the term. No student who is suspended or expelled shall be entitled to any refunds.

Application for admission to Wilkes College as an evening college, part-time, or graduate student should be made to the Division of Continuing Education and Graduate Studies, 16 South River Street, Wilkes-Barre, Pennsylvania 18703.

### Admissions

Bachelor of Arts degrees are offered in the following subject areas:

Anthropology	Individualized Studies
Art	International Relations
Biology	Mathematics
Chemistry	Music
Computer Science	Philosophy
Economics	Physics
Elementary Education	Political Science
English	Psychology
English/Theater Arts	Social Science/Urban Affairs
Environmental Sciences	Sociology
Foreign Language	Sociology-Anthropology
History	

### Degree Programs

Bachelor of Science degrees are offered in the following subject areas:

Biology	Engineering
Chemistry	Environmental Sciences
Commerce and Finance	Mathematics
(a) Accounting	Medical Technology
(b) Business Administration	Music Education
(c) Business Education	Nursing
Computer Science	Physics

Master of Science degrees are offered in the following subject areas:

Biology	Mathematics
Business Administration	Physics
Chemistry	

Master of Science in Education degrees are offered in the following subject areas:

Biology	History
Chemistry	Mathematics
Education	Physics
Elementary Education	Special Education
English	

(Wilkes also offers a "Certificate of Achievement" to undergraduate students in the field of Business Administration who earn 42 hours of credit in Evening College and Summer School programs with at least 24 hours in Business Administration and 18 hours in general education.)



Friday, May 5 thru Saturday, May 13 .... Final examinations

\*Monday and Tuesday, May 1 and May 2, follow  
Thursday and Friday schedules.

## Expenses

All charges must be paid at the time registration forms are processed.

### Undergraduate:

Undergraduate students who register for fewer than 12 credits pay \$70 per credit.

Undergraduate students who register for 12 or 13 credits pay \$90 per credit.

Undergraduate students who register for more than 13 but no more than 18 credits pay a flat tuition fee of \$1350 per semester. (Those students who take more than 18 credits pay \$90 for each credit above 18.)

### Graduate:

All graduate students pay \$80 per credit.

## Financial Aid

Various financial aid programs are available to part-time and full-time students. Inquiries about financial aid should be made to Richard Raspen, Director of Financial Aid, Chase Hall, 184 South River Street, Wilkes-Barre, Pennsylvania 18703.

## Withdrawal

An evening college, part-time, or graduate student may withdraw, without prejudice, from any course at any time during the first 10 weeks of the semester, providing that he or she gives verbal or written notice to this effect to the instructor and to the Director of Continuing Education and Graduate Studies within this 10-week period.

Students in good standing who withdraw from courses or from the college will receive a refund of tuition under the following conditions: During the first six weeks of the semester, one-half of the tuition will be refunded upon request to the Director of Continuing Education and Graduate Studies, if the withdrawal is made for adequate and satisfactory reasons. After the first six weeks, no refunds are allowed and the student is obligated for the full costs of the term. No student who is suspended or expelled shall be entitled to any refunds.

## Change Of Schedule

Occasionally a change in the course schedule becomes necessary. Such a change may mean the cancellation of one course or the addition of another. The College reserves the right to cancel or reschedule any course due to insufficient enrollment or any other reason. When possible, any change in the course schedule will be posted during registration. Students who have registered for courses that are subsequently cancelled or rescheduled will be notified as promptly as possible.

## The Library

The Eugene Shedden Farley Library is open to all Wilkes students. Students may borrow books from the Library by presenting their College identification cards. Hours are posted at the beginning of each academic session.

## The Bookstore

Books, stationery and supplies may be purchased at the College Bookstore, located in the lower level of Pickering Hall. They must be paid for at the time of purchase. The Bookstore is open from 8:30 a.m. to 4:30 p.m. Monday through Friday.

Art	International Relations
Biology	Mathematics
Chemistry	Music
Computer Science	Philosophy
Economics	Physics
Elementary Education	Political Science
English	Psychology
English/Theater Arts	Social Science/Urban Affairs
Environmental Sciences	Sociology
Foreign Language	Sociology-Anthropology
History	

Bachelor of Science degrees are offered in the following subject areas:

Biology	Engineering
Chemistry	Environmental Sciences
Commerce and Finance	Mathematics
(a) Accounting	Medical Technology
(b) Business Administration	Music Education
(c) Business Education	Nursing
Computer Science	Physics

Master of Science degrees are offered in the following subject areas:

Biology	Mathematics
Business Administration	Physics
Chemistry	

Master of Science in Education degrees are offered in the following subject areas:

Biology	History
Chemistry	Mathematics
Education	Physics
Elementary Education	Special Education
English	

(Wilkes also offers a "Certificate of Achievement" to undergraduate students in the field of Business Administration who earn 42 hours of credit in Evening College and Summer School programs with at least 24 hours in Business Administration and 18 hours in general education.)

Wilkes is accredited by the Department of Public Instruction of the State of Pennsylvania and the Middle States Association of Colleges and Secondary Schools. The Chemistry curriculum has been certified by the American Chemical Society.

The Graduate programs are approved by the Pennsylvania State Department of Education.

For further information write or call:

John F. Meyers, Director  
Division of Continuing Education and Graduate Studies  
Wilkes College  
16 South River Street  
Wilkes-Barre, Pennsylvania 18703  
Phone: 824-4651 Ext. 303 (After 4:30 p.m., 824-4656)

## Accreditation

## Information



Registration: Thursday and Friday, Jan. 12 and 13 . . . 8:30 a.m. to 8:00 p.m. Classes begin . . . Jan. 16

Continuing Education Office, Parrish Hall, 2nd Floor

## Undergraduate Division

(TIMES LISTED IN LIGHT FACE REPRESENT A.M.; BOLD FACE P.M.)

Course	Description	Room	Day & Hour	Credits
<b>ACCOUNTING:</b>				
Acct. 101E	Elementary Accounting I	Par. 35	M <b>6:30-9:30</b>	3
Acct. 102E	Elementary Accounting II	Par. 35	Th. <b>6:30-9:30</b>	3
Acct. 102E-2	Elementary Accounting II	Par. 35	W <b>6:30-9:30</b>	3
Acct. 112E	Intermediate Accounting II	Par. 45	Th. <b>6:30-9:30</b>	3
Acct. 204E	Managerial Accounting	Par. 45	T <b>6:30-9:30</b>	3
Acct. 222E	Taxes II (Pre: Acct. 221)	Par. 45	M <b>6:30-9:30</b>	3
Acct. 242E	Advanced Accounting II (Pre: Acct. 241)	Par. 45	W <b>6:30-9:30</b>	3
<b>ANTHROPOLOGY:</b>				
Anth. 101E	Introduction to Anthropology	SLC 127	M <b>6:30-9:30</b>	3
Anth. 272E	Linguistic Anthropology (Pre: Anth. 101 or approval of instructor)	SLC 133	W <b>6:30-9:30</b>	3
<b>ART:</b>				
Art. 101E	Experiencing Art I	SLC 105	W <b>6:00-9:00</b>	3
Art. 280E	Topics in Art: American Art History	SLC 1	T-Th <b>6:30-8:00</b>	3
<b>BIOLOGY:</b>				
Bio. 102E	Biological Science II	SLC 207	Th. <b>6:30-9:30</b>	3
Bio. 397E	Seminar	SLC 380	Th <b>6:00-8:00</b>	1
Bio. 412E	Epidemiology and Public Health (Pre: Two semesters of microbiology/bacteriology)	TBA	TBA	3
Bio. 430E	Reproductive Physiology (Pre: Bio. 302 or its equivalent)	TBA	TBA	3
<b>BUSINESS ADMINISTRATION:</b>				
B.A. 114E	Salesmanship	Par. 34	M <b>6:30-9:30</b>	3
B.A. 115E	Mathematics of Business and Finance	SLC 127	T <b>6:30-9:30</b>	3
B.A. 216E	Advertising	Par. 34	T <b>6:30-9:30</b>	3
B.A. 220E	Real Estate	Par. 53	W <b>6:30-9:30</b>	3
B.A. 222E	Marketing	Par. 43	W <b>6:30-9:30</b>	3
B.A. 226E	Investments	Par. 43	Th. <b>6:30-9:30</b>	3
B.A. 232E	Business Law — Agency, Partnerships, Corporations, and Real Property	Par. 53	Th. <b>6:30-9:30</b>	3
B.A. 240E	Property Insurance	Par. 43	M <b>6:30-9:30</b>	3
B.A. 254E	Organizational Design and Behavior	SLC 270	M <b>6:30-9:30</b>	3
B.A. 264E	Retail Buying	Par. 56	T <b>6:30-9:30</b>	3
<b>BUSINESS EDUCATION:</b>				
Bus. Ed. 106A	Intermediate Shorthand (Pre: Bus. Ed. 105 or approval of instructor)	Par. 25	T-Th <b>4:30-6:15</b>	2
Bus. Ed. 108E	Intermediate Typewriting Fee: \$15	Par. 25	T-Th <b>6:45-8:30</b>	2

(TIMES LISTED IN LIGHT FACE REPRESENT A.M.; BOLD FACE P.M.)

Course	Description	Room	Day & Hour	Credits
Eng. 152E	Western World Literature II (Pre: Eng. 151)	SLC 318	M 6:30-9:30	3
Eng. 305A	Teaching of English	TBA	TBA	3
Eng. 343A	Eighteenth Century Prose and Poetry (Pre: Eng. 152 or 254)	SLC 215	M-W 4:00-5:30	3
Eng. 366A	Later English Novel (Pre: Eng. 152 or 254)	SLC 311	T-Th 4:00-5:30	3
Eng. 398A	Topics: Playwriting	TBA	TBA	3
Eng. 410E	Studies in Medieval Literature	SLC 133	T 6:30-9:30	3
ENVIRONMENTAL SCIENCES:				
E.S. 102E	Environmental Awareness (Fee: \$15)	SLC 204	T 6:00-9:30	3
E.S. 402E	Topics in Environmental Sciences: Mineralogy	SLC 434	Th. 6:30-9:30	3
FOREIGN LANGUAGES AND LITERATURE:				
Span. 398E	Topics: Contemporary Literatures	TBA	TBA	3
HISTORY:				
Hist. 102E	History of World Civilization II	SLC 270	T 6:30-9:30	3
Hist. 314E	History of Science II	SLC 160	W 6:30-9:30	3
Hist. 333E	The Age of Big Business, 1865-1914	SLC 160	M 6:30-9:30	3
Hist. 354E	Early Modern Europe II	SLC 403	T 6:30-9:30	3
Hist. 364E	Diplomatic History of the Far East	SLC 133	Th. 6:30-9:30	3
Hist. 382E	History of Latin America II	Par. 34	W 6:30-9:30	3
MUSIC:				
Mus. 101E	Introduction to the Materials and Literature of Music I	DDD 101	T 6:30-9:30	3
Mus. 112B	Piano Class II (Non-majors)	DDD 219	M 7:00-9:00	2
Mus. 114A	Piano Class IV (Majors)	DDD 219	M-Th 6:00-7:00	2
Mus. 114B	Piano Class IV (Non-majors)	DDD 219	M 7:00-9:00	2
Applied Music	Room and hours to be arranged			
Note: It is important that all students who register for Applied Music through the Evening College consult with Mr. William Gasbarro, Music Department Chairman, before completing their registrations.				
NURSING:				
Nsg. 298E	Topics: Grief and Dying — Nursing Intervention (Pre: Open to Seniors and Registered Nurses)	SLC 316	T 6:00-9:00	3
Nsg. 298E-2	Topics: Critical Nursing (Pre: Open to Seniors and Registered Nurses)	SLC 316	Th 6:00-9:00	3

## Graduate Division

(TIMES LISTED IN LIGHT FACE REPRESENT A.M.; BOLD FACE P.M.)

Course	Description	Room	Day & Hour	Instructor
<b>BIOLOGY:</b>				
Bio. 412E	Epidemiology and Public Health (Pre: Two semesters of microbiology/bacteriology.)	TBA	TBA	Doty
Bio. 430E	Reproductive Physiology (Pre: Bio. 302 or its equivalent)	TBA	TBA	Erickson
<b>BUSINESS ADMINISTRATION:</b>				
B.A. 507	Business and Society	Par. 33	W <b>6:30-9:30</b>	Staff
B.A. 512	Price Policy and Procedure	Par. 53	T <b>6:30-9:30</b>	Taylor
B.A. 550	Topics in Accounting and Finance	Par. 56	Th <b>6:30-9:30</b>	Hall
B.A. 551	Investment and Portfolio Management	SLC 216	T <b>6:30-9:30</b>	Engel
B.A. 595	Independent Research	TBA	TBA	Staff
Econ. 501	Managerial Economics (Pre: 18 credits in the MBA program)	Par. 53	M <b>6:30-9:30</b>	Werner
Econ. 505	Managerial Statistics	Par. 33	T <b>6:30-9:30</b>	Williams
Econ. 532	Wage Determination and Administration	Par. 56	W <b>6:30-9:30</b>	Werner
<b>CHEMISTRY:</b>				
Chem. 342A	Intermediate Physical Chemistry (Lab.) Fee: \$20 (Pre: Chem. 341 or permission of instructor)	SLC 215 SLC 256	M-W-F 9:00 Th 2:00-5:00	Swain
Chem. 376A	Advanced Analytical Chemistry (Lab.) Fee: \$30 (Pre: Chem. 342)	SLC 215 SLC 203	M-W 1:00 M-W 3:00-5:00	Salley
Chem. 402A	Applied Chemistry II (Pre: Chem. 401 or permission of instructor)	TBA	TBA	Stine
Chem. 432A	Advanced Organic Chemistry II	TBA	TBA	Staff
Chem. 452A	Biochemistry II (Pre: Chem. 451 or equivalent)	TBA	TBA	Staff
<b>EDUCATION:</b>				
Ed. 436E	Children's Literature	SLC 147	W <b>6:00-9:00</b>	Ferris
Ed. 511	Philosophical Foundations of Education	SLC 147	M <b>6:00-9:00</b>	Fahmy
Ed. 512	Social Foundations of Education	SLC 316	W <b>6:00-9:00</b>	Barone
Ed. 521	Statistics in Education (Pre: Ed. 520 or equivalent)	SLC 311	T <b>6:00-9:00</b>	Bellucci
Ed. 532B	PEE: Science	SLC 147	T <b>6:00-9:00</b>	Placek
Ed. 532E	PEE: The Arts in Elementary Education (Note: \$10 fee for materials)	SLC 207	M <b>5:30-8:30</b>	Fuller
Ed. 540-I	Special Methods in Secondary School Instruction: Social Sciences	SLC 215	W <b>6:00-9:00</b>	Fahmy
Ed. 541	Secondary School Curriculum	SLC 215	T <b>4:00-7:00</b>	Darte



B.A. 226E	Investments	Par. 43	Th. 6:30-9:30	3
B.A. 232E	Business Law — Agency, Partnerships, Corporations, and Real Property	Par. 53	Th. 6:30-9:30	3
B.A. 240E	Property Insurance	Par. 43	M 6:30-9:30	3
B.A. 254E	Organizational Design and Behavior	SLC 270	M 6:30-9:30	3
B.A. 264E	Retail Buying	Par. 56	T 6:30-9:30	3

#### BUSINESS EDUCATION:

Bus. Ed. 106A	Intermediate Shorthand (Pre: Bus. Ed. 105 or approval of instructor)	Par. 25	T-Th 4:30-6:15	2
Bus. Ed. 108E	Intermediate Typewriting Fee: \$15 (Pre: Bus. Ed. 107 or approval of instructor)	Par. 25	T-Th 6:45-8:30	2

#### COMMUNICATION STUDIES:

Comm. 212E	Journalism: Editing and Advanced News Writing	Par. 25	M 6:30-9:30	3
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#### COMPUTER SCIENCE:

C.S. 124E	Cobol Programming Fee: \$20	SLC 424	T-Th 8:00-9:30	3
C.S. 224E	Advanced Cobol and File Management Fee: \$20 (Pre: C.S. 124)	SLC 424	T-Th 6:00-7:30	3

#### ECONOMICS:

Econ. 101E	Principles of Economics I	SLC 127	Th. 6:30-9:30	3
Econ. 102E	Principles of Economics II	SLC 347	M 6:30-9:30	3
Econ. 228E	Economic Geography of Asia, Africa, and Latin America	Par. 43	T 6:30-9:30	3
Econ. 230E	Business Cycles	Par. 34	Th. 6:30-9:30	3
Econ. 232E	Economics Statistics Fee: \$15	Par. 33	M 6:30-9:30	3
Econ. 236E	Public Finance	Par. 35	T 6:30-9:30	3

#### EDUCATION:

Ed. 292A	The Sciences in the Elementary School (Pre: Ed. 201-202)	SLC 204	T-Th 3:00-4:00	2
Ed. 292B	The Sciences in the Elementary School (Pre: Ed. 201-202)	SLC 204	T-Th 4:00-5:00	2
Ed. 398F	Topics in Education: The Teaching of Reading	SLC 133	M-W 4:30-6:00	3
Ed. 436E	Children's Literature	SLC 147	W 6:00-9:00	3

#### ENGINEERING:

Engi. 111A	Introduction to Engineering	TBA	TBA	3
E.E. 212A	Circuit Theory II (Pre: Math. 212)	SLC 127	M-W 5:00-6:30	3
Ma.E. 212A	Materials Science II (Pre: Chem. 201)	SLC 127	T-Th 5:00-6:30	3

#### ENGLISH:

Eng. 102E	Composition II (Pre: Eng. 100 or 101)	SLC 207	W 6:30-9:30	3
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Mus. 114B	Piano Class IV (Non-majors)	DDD 219	M 7:00-9:00	2
Applied Music	Room and hours to be arranged			

Note: It is important that all students who register for Applied Music through the Evening College consult with Mr. William Gasbarro, Music Department Chairman, before completing their registrations.

#### NURSING:

Nsg. 298E	Topics: Grief and Dying — Nursing Intervention (Pre: Open to Seniors and Registered Nurses)	SLC 316	T 6:00-9:00	3
Nsg. 298E-2	Topics: Critical Nursing (Pre: Open to Seniors and Registered Nurses)	SLC 316	Th 6:00-9:00	3

#### PHILOSOPHY:

Phil. 101E	Introduction to Philosophy	SLC 318	W 6:30-9:30	3
Phil. 152E	Introduction to Logic	SLC 311	Th. 6:30-9:30	3
Phil. 210E	Ethics	SLC 311	W 6:30-9:30	3

#### PHYSICS:

Phys. 102E	Physical Science II	SLC 204	Th. 6:30-9:30	3
Phys. 380E	Nuclear Physics (Pre: Phys. 361)	SLC 139	M 6:30-9:30	3

#### POLITICAL SCIENCE:

Pol. Sci. 102E	Political Science II	SLC 209	M 6:30-9:30	3
Pol. Sci. 232E	Constitutional Law II (Pre: Pol. Sci. 101-102)	SLC 209	W 6:30-9:30	3
Pol. Sci. 398E	Topics in Political Science: Public Personnel Administration	SLC 160	M 6:30-9:30	3

#### PSYCHOLOGY:

Psy. 102E	General Psychology II	SLC 347	Th. 6:30-9:30	3
Psy. 398E	Topics: Infant at Risk	SLC 334	M 6:30-9:30	3

#### READING:

	Speed reading and study skills development	TBA	TBA	0
	(Note: Students interested in the reading course should register through the Reading Improvement Center, Ross Hall.)			

#### SOCIOLOGY:

Soc. 200E	The Family	SLC 209	T 6:30-9:30	3
Soc. 252E	Comparative Social Welfare Systems (Pre: Soc. 101 or Anth. 101 or approval of instructor)	SLC 209	Th. 6:30-9:30	3
Soc. 275E	Sociology of Minorities (Pre: Soc. 101 or Anth. 101 or Psy. 101-102 or approval of instructor)	SLC 204	W 6:30-9:30	3
Soc. 397E	Seminar: Sociology of Occupations and Professions	SLC 207	T 6:30-9:30	3

#### SPEECH:

Spch. 101E	Fundamentals of Speech	DDD 101	M 6:00-9:00	3
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#### THEATER ARTS:

T.A. 298E	Topics: American Film Genres	CPA	T 7:30-9:30	3
		CPA	W 4:00-6:00	

Ed. 512	Social Foundations of Education	SLC 316	W 6:00-9:00	Barone
Ed. 521	Statistics in Education (Pre: Ed. 520 or equivalent)	SLC 311	T 6:00-9:00	Bellucci
Ed. 532B	PEE: Science	SLC 147	T 6:00-9:00	Placek
Ed. 532E	PEE: The Arts in Elementary Education (Note: \$10 fee for materials)	SLC 207	M 5:30-8:30	Fuller
Ed. 540-I	Special Methods in Secondary School Instruction: Social Sciences	SLC 215	W 6:00-9:00	Fahmy
Ed. 541	Secondary School Curriculum	SLC 215	T 4:00-7:00	Darte
Ed. 564	Curriculum and Methods in Special Education	SLC 215	T 7:00-10:00	Darte
Ed. 573	Curriculum Construction	SLC 215	Th 7:00-10:00	Darte
Ed. 578	School Law	SLC 215	M 6:00-9:00	Rees
Ed. 598	Topics: Mainstreaming	SLC 215	Th 4:00-7:00	Darte

#### ENVIRONMENTAL SCIENCES:

E.S. 402	Topics in Environmental Sciences: Mineralogy (Pre: Counts toward degree credit only with major department's approval)	SLC 434	Th 6:30-9:30	Redmond
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#### ENGLISH:

Eng. 343A	Eighteenth Century Prose and Poetry	SLC 215	M-W 4:00-5:30	Curtis
Eng. 366A	Later English Novel	SLC 215	T-Th 4:00-5:30	R. Heaman
Eng. 410E	Studies in Medieval Literature	SLC 133	T 6:30-9:30	Fiester

#### HISTORY:

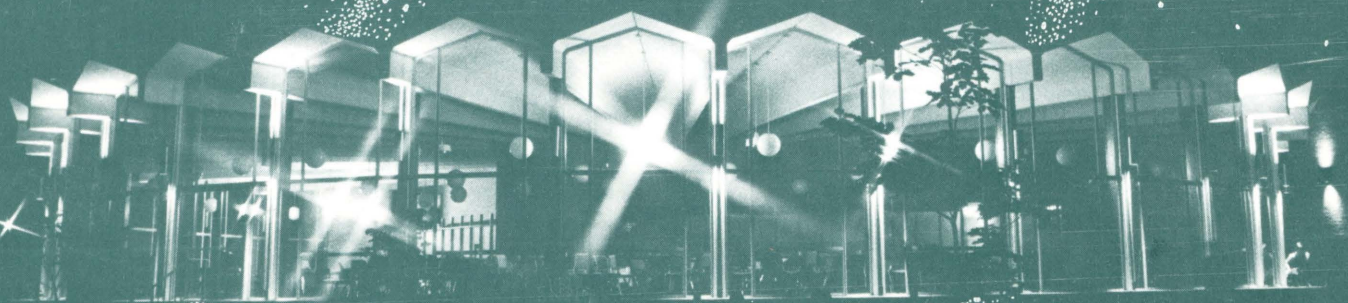
Hist. 314E	History of Science II	SLC 160	W 6:30-9:30	Berg
Hist. 322A	American Social and Intellectual History II	SLC 311	T-Th-F 1:00	Rodechko
Hist. 333E	The Age of Big Business, 1865-1914	SLC 160	M 6:30-9:30	Cox
Hist. 342A	History of Great Britain and the British Empire and Commonwealth II	SLC 209	M-W-F 11:00	Berlatsky
Hist. 352A	The Renaissance and Reformation	SLC 160	M-W-F 10:00	Berg
Hist. 354E	Early Modern Europe II	SLC 403	T 6:30-9:30	Berlatsky
Hist. 356A	Europe in the Twentieth Century	SLC 215	M-W-F 12:00	Shao
Hist. 364E	Diplomatic History of the Far East	SLC 133	Th 6:30-9:30	Shao

#### PHYSICS:

Phys. 312A	Mechanics II	SLC 215	T-Th 9:30-11:00	Donahoe
Phys. 380E	Nuclear Physics	SLC 139	M 6:30	Bailey

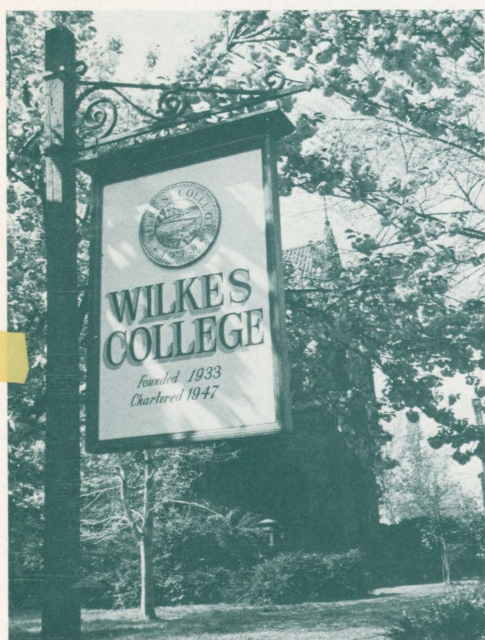


**Wilkes** 1978 Summer Sessions  
**College**





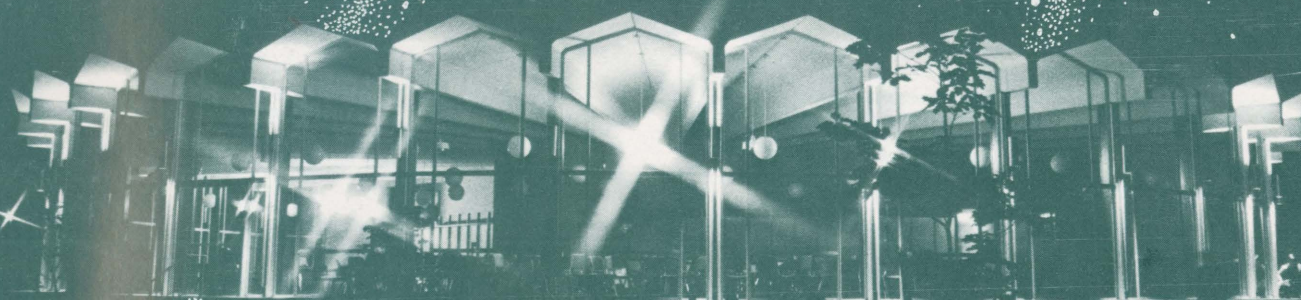
Division Of Continuing Education  
**Wilkes College**  
16 South River Street  
Wilkes-Barre, Pa. 18703



"Small enough to know your needs  
and large enough to meet them"

Non-Profit Organization  
U. S. POSTAGE  
**PAID**  
WILKES-BARRE, PA.  
PERMIT NO. 355

# Wilkes College 1978 Summer Sessions





# WILKES COLLEGE

## Summer Sessions—1978

FIRST SESSION-JUNE 12-JULY 14

SECOND SESSION—JULY 17-AUGUST 18

EIGHT WEEK EVENING SESSION—JUNE 12-AUGUST 4

### — GENERAL INFORMATION —

Students who register for courses in more than one session **MUST COMPLETE** a registration form for each session.

#### First Session

June 12 to July 14 (including Final Examinations)  
Registration ..... Thursday, June 8 and Friday, June 9  
Parrish Hall — 8:30 a.m. to 8:00 p.m.

#### Second Session

July 17 to August 18 (including Final Examinations)  
Registration ..... Thursday, July 13 and Friday, July 14  
Parrish Hall — 8:30 a.m. to 6:00 p.m.

#### Eight Week Evening Session

June 12 to August 4 (including Final Examinations)  
Registration ..... Thursday, June 8 and Friday, June 9  
Parrish Hall — 8:30 a.m. to 8:00 p.m.

Generally, courses offered during the First or Second Session will meet five days per week for two hours, according to the following schedule:

first period ..... 8:00 a.m. - 9:50 a.m.  
second period ..... 10:10 a.m. - 12:00 noon  
third period ..... 6:00 p.m. - 7:50 p.m.  
fourth period ..... 8:10 p.m. - 10:00 p.m.

Most courses offered during the eight-week evening session will be scheduled on Monday, Tuesday and Thursday evenings from 6:00 p.m. to 7:45 p.m. or 8:00 p.m. to 9:45 p.m.

**Because some courses do not follow these time-tables exactly, students are urged to consult the list of courses to be sure that the course(s) in which they are interested is not offered at times or for periods other than those posted in the calendar.**

#### Restriction Of Course Loads

Course load is limited to six semester hours of credit for each session, except in the nursing program. Students are cautioned to exercise judgment and care in scheduling both day and evening courses.

#### Dormitory And Dining Facilities

Dormitory facilities will be available for both male and female students during all summer sessions. Students who live in the dormitories **must** participate in the five-day board plan (Monday through Friday).

The Commons will be open to all students for breakfasts and light lunches on a "pay as you go basis" from 7:00 a.m. to 1:00 p.m., Monday through Friday, from June 12 to August 18.

Arrangements for dormitory accommodations may be made by contacting:

The Housing Office  
Wilkes College  
Wilkes-Barre, Pennsylvania 18703

#### Expenses

Tuition for the summer sessions is \$70 per credit hour for undergraduate and \$80 per credit hour for graduate students. Fees for room and board during the summer sessions are \$52 per week (including linen service). All charges must be paid at the time of registration. Tuition and fees for the second session must be paid no later than July 17. Books and supplies may be purchased at the Bookstore and must be paid for at the time of purchase.

Students enrolled at least half-time (6 credits over the entire summer) are eligible to receive loans through the State Guaranteed Loan Program; applications and further information can be ob-

The College reserves the right to cancel or reschedule any course due to insufficient enrollment or any other reason. When possible, any change in the course schedule will be posted during registration. Students who have registered for courses that are subsequently cancelled or rescheduled will be notified as promptly as possible.

The Eugene Shedden Farley Library is open to all Wilkes students. Students may borrow books from the Library by presenting their college identification cards. Hours are posted at the beginning of each academic session.

Books, stationery and supplies may be purchased at the College Bookstore, located in the lower level of Pickering Hall. They must be paid for at the time of purchase. The Bookstore is open from 8:30 a.m. to 4:30 p.m. Monday through Friday.

Wilkes is accredited by the Department of Public Instruction of the State of Pennsylvania and the Middle States Association of Colleges and Secondary Schools. The Chemistry curriculum has been certified by the American Chemical Society.

The Graduate programs are approved by the Pennsylvania State Department of Education.

Application for admission to Wilkes College as an evening college, part-time, or graduate student should be made to the Division of Continuing Education and Graduate Studies, 16 South River Street, Wilkes-Barre, Pennsylvania 18703. Application for admission to Wilkes College as a full-time undergraduate student should be made to the Dean of Admissions.

Bachelor of Arts degrees are offered in the following subject areas:

Biology	History
Chemistry	Individualized Studies
Computer Science	International Relations
Economics	Mathematics
Elementary Education	Music
English	Philosophy
English/Communication Studies	Physics
English/Theater Arts	Political Science
Environmental Sciences	Psychology
Fine Arts	Social Science/Urban Affairs
Foreign Language	Sociology-Anthropology

Bachelor of Science degrees are offered in the following subject areas:

Biology	Computer Science
Business Education	Engineering
Chemistry	Environmental Sciences
Commerce and Finance	Mathematics
(a) Accounting	Medical Technology
(b) Business Administration	Music Education
	Nursing
	Physics

#### Change Of Schedule

#### The Library

#### The Bookstore

#### Accreditation

#### Admissions

#### Degree Programs

#### Financial Aid For Undergraduates



## Restriction Of Course Loads

## Dormitory And Dining Facilities

## Expenses

## Financial Aid For Undergraduates

## Withdrawal

Most courses offered during the eight-week evening session will be scheduled on Monday, Tuesday and Thursday evenings from 6:00 p.m. to 7:45 p.m. or 8:00 p.m. to 9:45 p.m.

Because some courses do not follow these time-tables exactly, students are urged to consult the list of courses to be sure that the course(s) in which they are interested is not offered at times or for periods other than those posted in the calendar.

Course load is limited to six semester hours of credit for each session, except in the nursing program. Students are cautioned to exercise judgment and care in scheduling both day and evening courses.

Dormitory facilities will be available for both male and female students during all summer sessions. Students who live in the dormitories **must** participate in the five-day board plan (Monday through Friday).

The Commons will be open to all students for breakfasts and light lunches on a "pay as you go basis" from 7:00 a.m. to 1:00 p.m., Monday through Friday, from June 12 to August 18.

Arrangements for dormitory accommodations may be made by contacting:

The Housing Office  
Wilkes College  
Wilkes-Barre, Pennsylvania 18703

Tuition for the summer sessions is \$70 per credit hour for undergraduate and \$80 per credit hour for graduate students. Fees for room and board during the summer sessions are \$52 per week (including linen service). All charges must be paid at the time of registration. Tuition and fees for the second session must be paid no later than July 17. Books and supplies may be purchased at the Bookstore and must be paid for at the time of purchase.

Students enrolled at least half-time (6 credits over the entire summer) are eligible to receive loans through the State Guaranteed Loan Program; applications and further information can be obtained from a hometown bank or savings and loan association. Full-time summer school students (those carrying at least 12 credits over the summer) may also be eligible for accelerated payments through the Pennsylvania State Grant Program. All students enrolled at least half-time may also be eligible to receive funds through the Basic Educational Opportunity Grant Program; applications may be obtained from any high school guidance office or from the College Financial Aid Office. Part- and full-time employment is also available for any student eligible under the College Work-Study Program.

Inquiries about financial aid for summer study should be made to the Director of Financial Aid prior to June 1.

Withdrawal from classes after the first week is inadvisable except in extenuating circumstances.

A student who withdraws from the summer session or drops courses after the first week **must** receive permission from the instructor and the Director of Continuing Education in order that his records may not unjustly show failure in courses.

Students in good standing who withdraw from the college will receive a refund of tuition under the following conditions: during the first week of the first and second sessions and during the first two weeks of the eight-week evening session, one-half of the tuition will be refunded upon written request to the Director of Continuing Education, if the withdrawal is made for adequate and satisfactory reasons. After these designated periods no refunds are allowed and the student is obligated for the full costs of the term. No student who is suspended or expelled shall be entitled to any refunds.

the State of Pennsylvania and the Middle States Association of Colleges and Secondary Schools. The Chemistry curriculum has been certified by the American Chemical Society.

The Graduate programs are approved by the Pennsylvania State Department of Education.

Application for admission to Wilkes College as an evening college, part-time, or graduate student should be made to the Division of Continuing Education and Graduate Studies, 16 South River Street, Wilkes-Barre, Pennsylvania 18703. Application for admission to Wilkes College as a full-time undergraduate student should be made to the Dean of Admissions.

Bachelor of Arts degrees are offered in the following subject areas:

Biology	History
Chemistry	Individualized Studies
Computer Science	International Relations
Economics	Mathematics
Elementary Education	Music
English	Philosophy
English/Communication Studies	Physics
English/Theater Arts	Political Science
Environmental Sciences	Psychology
Fine Arts	Social Science/Urban Affairs
Foreign Language	Sociology-Anthropology

Bachelor of Science degrees are offered in the following subject areas:

Biology	Computer Science
Business Education	Engineering
Chemistry	Environmental Sciences
Commerce and Finance	Mathematics
(a) Accounting	Medical Technology
(b) Business Administration	Music Education
	Nursing
	Physics

Master of Science degrees are offered in the following subject areas:

Biology	Chemistry	Physics
Business Administration	Mathematics	

Master of Science in Education degrees are offered in the following subject areas:

Biology	Elementary Education	Mathematics
Chemistry	English	Physics
Education	History	Special Education

(Wilkes also offers a "Certificate of Achievement" to undergraduate students in the field of Business Administration who earn 42 hours of credit in Evening College and Summer School programs with at least 24 hours in Business Administration and 18 hours in general education.)

For further information, write or call:

John F. Meyers, Director  
Division of Continuing Education and Graduate Studies  
Wilkes College  
16 South River Street  
Wilkes-Barre, Pennsylvania 18703  
Phone: (717) 824-4651 Ext. 303-304

## Admissions

## Degree Programs

## Information



WILKES COLLEGE SUMMER SESSIONS

REGISTRATION: (Parrish Hall, Second Floor)

First Session: Thursday, June 8, and Friday, June 9 (8:30 a.m. - 8:00 p.m.)  
Second Session: Thursday, July 13, and Friday, July 14 (8:30 a.m. - 6:00 p.m.)  
Eight-Week Evening Session: Thursday, June 8, and Friday, June 9 (8:30 a.m. - 8:00 p.m.)

UNDERGRADUATE — FIRST SESSION  
First Session Undergraduate Schedule

June 12 - July 14, 1978 — Monday thru Friday  
(unless otherwise indicated)

Course	Description	Room	Time	Cr. Hrs.
(TIMES LISTED IN LIGHT FACE REPRESENT A.M.; BOLD FACE P.M.)				

ACCOUNTING:

Acct. 101S Elementary Accounting I Par. 35 8:00-9:50 3

ANTHROPOLOGY:

Anth. 101S Introduction to Anthropology SLC 127 8:00-9:50 3  
Anth. 398S Topics: Male/Female: SLC 127 10:10-12:00 3  
Crosscultural

ART:

Art 380S Topics: Batik Workshop SLC 206 10:00-1:00 3  
(June 26-July 14)  
Art 380S-2 Topics: Painting Workshop SLC 105 6:00-8:00 3

BIOLOGY:

Bio. 101S Biological Science I SLC 380 10:10-12:00 3  
Bio. 303S Bacteriology SLC 311 MWF 10:10-12:00 3  
Laboratory SLC 305 MWF 2:00-5:00  
Laboratory Fee: \$20  
(Pre: Bio. 201M-208M or permission of instructor)  
Bio. 398A Topics: Field Zoology TBA 8:00-12:00 3  
(June 1-June 22)  
Bio. 398B Topics: Marine Biology TBA TBA 3  
(June 26-July 2)

BUSINESS ADMINISTRATION:

B.A. 222S Marketing Par. 43 10:10-12:00 3  
B.A. 231S Business Law—Introduction, Par. 34 8:00-9:50 3  
Contracts and Sales  
B.A. 232S Business Law—Agency, Par. 34 10:10-12:00 3  
Partnerships, Corporations  
and Real Property  
B.A. 251S Principles of Management Par. 43 8:00-9:50 3

CHEMISTRY:

Chem. 105S Introduction to Chemical SLC 342 10:00-11:30 4  
Reactions and Principles  
Laboratory SLC 259 MWTh 12:00-3:00  
Laboratory Fee: \$20  
Chem. 201S Elements and Compounds SLC 334 8:30-10:00 4  
Laboratory SLC 263 MWTh 12:00-3:00  
Laboratory Fee: \$20  
Chem. 237S Organic Chemistry I SLC 403 10:00-11:30 4  
Laboratory SLC 264 TTh 1:00-5:00  
Laboratory Fee: \$20  
(June 5-July 14)  
(Pre: Chem. 202 or permission of instructor)  
(See Post-Session for additional Chemistry courses.)

COMMUNICATION STUDIES:

Comm. 101S Principles of Communication DDD 220 8:00-9:50 3  
Comm. 201S Mass Media DDD 220 10:10-12:00 3

COMPUTER SCIENCE:

C.S. 122S Basic Programming SLC 424 12:00-1:00 1  
Fee: \$10 MTThF

ECONOMICS:

Econ. 101S Principles of Economics I Par. 45 8:00-9:50 3  
Econ. 201S Money and Banking Par. 45 10:10-12:00 3  
Econ. 231S Applied General Statistics Par. 33 10:10-12:00 3  
Fee: \$15

EDUCATION:

Ed. 201S Introduction to Education SLC 209 10:10-12:00 3  
(Pre: Sophomore standing)  
Ed. 202S Educational Psychology SLC 207 8:00-9:50 3  
(Pre: Psy. 102)  
Ed. 351S Educational Measurements SLC 220 8:00-9:50 3  
(Pre: Ed. 202)  
Ed. 398A Topics in Education: Teaching SLC 204 10:10-12:00 3  
Secondary Social Studies

ENGINEERING:

E.E. 211S Circuit Theory I SLC 223 10:10-12:00 3

Undergraduate  
Division

Course	Description	Room	Time	Instructor
(TIMES LISTED IN LIGHT FACE REPRESENT A.M.; BOLD FACE P.M.)				

Summer Band Workshop II

(July 10-July 21) 9:00-4:00 0  
M thru F

Open to high school, pre-college and college  
instrumentalists. (For more information, contact  
Mr. William Gasbarro, Chairman, Music Department.)

NURSING:

Nsg. 201S Nursing Care of the TBA TBA 6  
Growing Family I  
(Pre: Nsg. 102, Bio. 116)  
Nsg. 301S Health Problems in Today's TBA TBA 6  
Society  
(Pre: Nsg. 203-204)

PHILOSOPHY:

Phil. 101S Introduction to Philosophy SLC 318 8:00-9:50 3  
Phil. 216S Philosophy of Art SLC 318 10:10-12:00 3

PHYSICS:

Phys. 101S Physical Science I SLC 160 8:00-9:50 3

POLITICAL SCIENCE:

P.S. 101S Political Science I DDD 101 10:10-12:00 3  
P.S. 398S Topics in Political Science: TBA TBA 3  
Planning  
(Pre: Permission of department)

PSYCHOLOGY:

Psy. 101S General Psychology I SLC 101 10:10-12:00 3  
Psy. 221S Child Psychology SLC 101 8:00-9:50 3  
(Pre: Psy. 101-102)  
Psy. 232S Human Behavior SLC 334 10:10-12:00 3  
(Pre: Psy. 101-102)  
Psy. 242S Psychological Tests SLC 220 10:10-12:00 3  
(Pre: Psy. 101-102)

SOCIOLOGY:

Soc. 200S The Family DDD 218 10:10-12:00 3  
(May 22-June 23)  
(Pre: Soc. 101 or Anth. 101 or approval of instructor)  
Soc. 200S-2 The Family SLC 127 1:00-3:00 3  
(May 22-June 23)  
(Pre: Soc. 101 or Anth. 101 or approval of instructor)  
Soc. 200S-3 The Family SLC 127 8:00-9:50 3  
(June 12-July 14)  
(Pre: Soc. 101 or Anth. 101 or approval of instructor)

SPEECH:

Spch. 101S Fundamentals of Speech DDD 101 8:00-9:50 3

UNDERGRADUATE — SECOND SESSION  
Second Session Undergraduate Schedule

July 17 - August 18, 1978 — Monday thru Friday  
(unless otherwise indicated)

Course	Description	Room	Time	Cr. Hrs.
(TIMES LISTED IN LIGHT FACE REPRESENT A.M.; BOLD FACE P.M.)				

ACCOUNTING:

Acct. 102S Elementary Accounting II Par. 35 8:00-9:50 3

BIOLOGY:

Bio. 102S Biological Science II SLC 380 10:10-12:00 3  
Bio. 385S Floristic Biology TBA 8:00-12:00 3  
(July 17-August 5)  
Bio. 398C Topics: Biochronometry SLC 359 10:10-12:00 3

BUSINESS ADMINISTRATION:

B.A. 101S Introduction to the Private Par. 43 8:00-9:50 3  
Sector of Business  
B.A. 225S Managerial Finance Par. 45 8:00-9:50 3

Course	Description	Room	Time	Cr. Hrs.
(TIMES LISTED IN LIGHT FACE REPRESENT A.M.; BOLD FACE P.M.)				

MATHEMATICS:

Math. 102S Fundamentals of Mathematics II SLC 403 8:00-9:50 3  
(Pre: Math. 101)  
Math. 104S Mathematics for Elementary SLC 403 10:10-12:00 3  
School Teachers II  
(Pre: Math. 103)  
Math. 243S Geometry for Elementary SLC 409 8:00-9:50 3  
School Teachers  
(Pre: Math. 104 or consent of instructor)  
  
MUSIC:  
Mus. 101S Introduction to the Materials DDD 323 8:00-9:50 3  
and Literature of Music I DDD 323 6:00-7:50 3  
DDD 323 8:00-9:50 3  
Mus. 102S Introduction to the Materials DDD 323 8:00-9:50 3  
and Literature of Music II DDD 323 6:00-7:50 3  
DDD 323 8:00-9:50 3

NURSING:

Nsg. 202S Nursing Care of the TBA TBA 6  
Growing Family II  
Fee: \$20  
(Pre: Nsg. 201)  
Nsg. 296S Independent Study TBA TBA 4  
(Pre: Nsg. 294, Nsg. 295 and research  
course to be designated)  
Nsg. 297S Contemporary Problems in TBA TBA 2  
Nursing  
(Pre: Nsg. 204)

PHILOSOPHY:

Phil. 101S Introduction to Philosophy SLC 216 8:00-9:50 3  
Phil. 152S Introduction to Logic SLC 216 10:10-12:00 3

PHYSICS:

Phys. 102S Physical Science II SLC 160 8:00-9:50 3

POLITICAL SCIENCE:

P.S. 102S Political Science II SLC 409 10:10-12:00 3  
P.S. 398S Topics in Political Science: TBA TBA 3  
Political Theory  
(Pre: Permission of department)

PSYCHOLOGY:

Psy. 102S General Psychology II SLC 101 10:10-12:00 3  
Psy. 243S Industrial Psychology SLC 342 10:10-12:00 3  
(Pre: Psy. 101-102)

SOCIOLOGY:

Soc. 101S Introduction to Sociology SLC 411 8:00-9:50 3  
Soc. 398S Topics: Blue Collar Worlds SLC 411 10:10-12:00 3

UNDERGRADUATE  
EIGHT-WEEK EVENING SESSION  
Eight-Week Evening  
Undergraduate Schedule  
June 12 - August 4, 1978  
Monday, Tuesday and Thursday Nights  
(unless otherwise indicated)

Course	Description	Room	Time	Cr. Hrs.
(TIMES LISTED IN LIGHT FACE REPRESENT A.M.; BOLD FACE P.M.)				

ACCOUNTING:

Acct. 101E Elementary Accounting I Par. 35 6:00-7:45 3

BIOLOGY:

Bio. 113E Microbiology SLC 311 TBA 4  
(June 19-August 11)

FIRST SESSION - JUNE 12-JULY 14

SECOND SESSION - JULY 17-AUGUST 18

EIGHT WEEK EVENING SESSION - JUNE 12-AUGUST 4

Course	Description	Room	Time	Cr. Hrs.
(TIMES LISTED IN LIGHT FACE REPRESENT A.M.; BOLD FACE P.M.)				

PSYCHOLOGY:

Psy. 245E Clinical Psychology SLC 347 6:00-7:45 3  
(Pre: Psy. 242 and Psy. 331)  
Psy. 331E Abnormal Psychology SLC 347 8:00-9:45 3  
(Pre: Psy. 232)

SOCIOLOGY:

Soc. 101E Introduction to Sociology SLC 127 6:00-7:45 3

SPEECH:

Spch. 202E Business and Professional DDD 101 6:00-7:45 3  
Speaking

POST SESSION - AUGUST 21 - 25

Course	Description	Room	Time	Cr. Hrs.
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CHEMISTRY:

Chem. 100A Basic Mathematics for TBA 10:00-12:00 0  
Introductory Chemistry  
Fee: \$50  
(For students registered for Chem. 201 during  
the Fall Semester, 1978)  
Chem. 100B Basic Mathematics for TBA 1:00-3:00 0  
Introductory Chemistry  
Fee: \$50  
(For students registered for Chem. 105 during  
the Fall Semester, 1978)

Graduate  
Division

Students who register for graduate courses in more than one  
session MUST complete registration forms for each session.

Course	Description	Room	Time	Instructor
(TIMES LISTED IN LIGHT FACE REPRESENT A.M.; BOLD FACE P.M.)				

BIOLOGY:

First Session — June 12 to July 14  
(except where otherwise noted)

Bio. 303S Bacteriology SLC 311 MWF 10:00-12:00 Doty  
Laboratory SLC 305 MWF 2:00-5:00  
Fee: \$20  
Bio. 398A Topics: Field Zoology TBA 8:00-12:00 Rigley  
(June 1-June 22)  
Bio. 398B Topics: Marine Biology TBA TBA Rigley  
(June 26-July 2)

Second Session — July 17 to August 18  
(except where otherwise noted)

Bio. 385S Floristic Biology TBA 8:00-12:00 Reif  
(July 17-August 5)  
Bio. 398C Topics: Biochronometry SLC 359 10:10-12:00 Erickson

BUSINESS ADMINISTRATION:

Eight-Week Evening Session — June 12 to August 4

B.A. 550E Topics: Labor Par. 53 MW 6:00-9:00 Werner  
B.A. 552E Financial Management Par. 53 TTh 6:00-9:00 Engel  
B.A. 595 Independent Study TBA TBA Staff



E.E. 211S-2	(Pre: Math. 112) Circuit Theory I (Pre: Math. 112)	SLC 223	6:00-8:00	3
Ma.E. 211S	Materials Science I (Pre: Chem. 201)	SLC 240	10:10-12:00	3
Ma.E. 211S-2	Materials Science I (Pre: Chem. 201)	SLC 240	6:00-8:00	3
<b>ENGLISH:</b>				
Eng. 100S	Writing Workshop	SLC 257	8:00-9:50	3
Eng. 100S-2	Writing Workshop	SLC 257	10:10-12:00	3
Eng. 101S	Composition I	SLC 347	10:10-12:00	3
Eng. 151S	Western World Literature I (Pre: Eng. 102 or equivalent in composition)	SLC 347	8:00-9:50	3
Eng. 151S-2	Western World Literature I (Pre: Eng. 102 or equivalent in composition)	SLC 216	8:00-9:50	3
Eng. 151S-3	Western World Literature I (Pre: Eng. 102 or equivalent in composition)	SLC 216	10:10-12:00	3
Eng. 381S	American Literature I (Pre: Eng. 152 or 254)	SLC 405	10:10-12:00	3
<b>ENVIRONMENTAL SCIENCES:</b>				
E.S. 102S	Introductory Geology	SLC 435	10:10-12:00	3
E.S. 211S	Physical Geology	SLC 435	1:00-3:00	3
<b>FOREIGN LANGUAGES:</b>				
<b>French:</b>				
Fr. 101S	Elementary French I	SLC 147	8:00-9:50	3
Fr. 203S	Intermediate French I (Pre: Fr. 102 or equivalent)	SLC 147	10:10-12:00	3
<b>German:</b>				
Ger. 101S	Elementary German I	DDD 202	8:00-9:50	3
Ger. 203S	Intermediate German I (Pre: Ger. 102 or equivalent)	DDD 202	10:10-12:00	3
<b>Spanish:</b>				
Span. 101S	Elementary Spanish I	DDD 201	8:00-9:50	3
Span. 203S	Intermediate Spanish I (Pre: Span. 102 or equivalent)	DDD 201	10:10-12:00	3
<b>HISTORY:</b>				
Hist. 101S	World Civilization I	SLC 215	8:00-9:50	3
Hist. 102S	World Civilization II	SLC 133	10:10-12:00	3
Hist. 398S	Topics: Tudor England	SLC 133	8:00-9:50	3
Hist. 398S-2	Topics: Recent American Foreign Policy	SLC 215	10:10-12:00	3
<b>MATHEMATICS:</b>				
Math. 100S	Pre-Calculus Mathematics (June 12-July 21) (Pre: Two years of secondary school mathematics in Algebra and Geometry)	SLC 424	10:10-12:00	4
Math. 101S	Fundamentals of Mathematics I (Not open to students with credits in Math. 103 or 104)	SLC 424	8:00-9:50	3
Math. 103S	Mathematics for Elementary School Teachers I (Not open to students with credits in Math. 101 or 102)	SLC 411	10:10-12:00	3
Math. 211S	Introduction to Linear Algebra and Differential Equations (June 12-July 21) (Pre: Math. 112)	TBA	TBA	4
Math. 232S	Abstract Algebra for Elementary School Teachers (Pre: Math. 104 or consent of instructor)	SLC 411	8:00-9:50	3
<b>MUSIC:</b>				
Mus. 101S	Introduction to the Materials and Literature of Music I	DDD 323	8:00-9:50	3
		DDD 323	6:00-7:50	3
		DDD 323	8:00-9:50	3
Mus. 102S	Introduction to the Materials and Literature of Music II	DDD 323	8:00-9:50	3
		DDD 323	6:00-7:50	3
		DDD 323	8:00-9:50	3
Applied Music	Private Lessons Note: It is important that all students who register for Applied Music through the Evening College consult with Mr. William Gasbarro, Music Department Chairman, before completing their registrations.			
<b>Summer Band Workshop I</b> (June 26-July 8)				
			9:00-4:00 M thru F	0
	Open to high school, pre-college and college instrumentalists. (For more information, contact Mr. William Gasbarro, Chairman, Music Department.)			

B.A. 226S	Investments	Par. 45	10:10-12:00	3
<b>CHEMISTRY:</b>				
(All Chemistry classes in this session meet from July 17 to August 25)				
Chem. 202S	The Chemical Reaction Laboratory Laboratory Fee: \$20 (July 17-August 25) (Pre: Chem. 201)	SLC 334 SLC 259	10:00-11:30 MTh 12:00-3:00	4
Chem. 230S	Organic & Biological Chemistry Laboratory Laboratory Fee: \$20 (July 17-August 25) (Pre: Chem. 105, Chem. 201 or equivalent)	SLC 334 SLC 275	8:30-10:00 MTh 12:00-3:00	4
Chem. 238S	Organic Chemistry II Laboratory Laboratory Fee: \$20 (July 17-August 25) (Pre: Chem. 237)	SLC 204 SLC 264	10:00-11:30 TTh 1:00-5:00	4
(See Post Session for additional Chemistry courses)				
<b>ECONOMICS:</b>				
Econ. 102S	Principles of Economics II	Par. 43	10:10-12:00	3
Econ. 232S	Economics Statistics Fee: \$15	Par. 33	10:10-12:00	3
<b>EDUCATION:</b>				
Ed. 352S	Guidance (Pre: Ed. 202)	SLC 207	8:00-9:50	3
Ed. 398B	Topics in Education: Education of Disadvantaged Youth	SLC 209	10:10-12:00	3
<b>ENGINEERING:</b>				
E.E. 212S	Circuit Theory II (Pre: Math. 112)	SLC 223	10:10-12:00	3
E.E. 212S-2	Circuit Theory II (Pre: Math. 112)	SLC 223	6:00-8:00	3
Ma.E. 212S	Materials Science II (Pre: Chem. 201)	SLC 240	10:10-12:00	3
Ma.E. 212S-2	Materials Science II (Pre: Chem. 201)	SLC 240	6:00-8:00	3
<b>ENGLISH:</b>				
Eng. 102S	Composition II (Pre: Eng. 100 or Eng. 101)	SLC 270	10:10-12:00	3
Eng. 152S	Western World Literature II (Pre: Eng. 151)	SLC 318	10:10-12:00	3
Eng. 152S-2	Western World Literature II (Pre: Eng. 151)	SLC 270	8:00-9:50	3
Eng. 320S	Tudor Prose and Poetry (The Traditions of Renaissance Humanism)	SLC 257	10:10-12:00	3
Eng. 382S	American Literature II (Pre: Eng. 152 or 254)	SLC 318	8:00-9:50	3
<b>ENVIRONMENTAL SCIENCES:</b>				
E.S. 104S	Introductory Oceanography	SLC 435	10:10-12:00	3
E.S. 251S	Synoptic Meteorology	SLC 435	1:00-3:00	3
E.S. 401S	Topics in Environmental Sciences: Water Resources	SLC 435	MTTh 6:00-9:00	3
<b>FOREIGN LANGUAGES:</b>				
<b>French:</b>				
Fr. 102S	Elementary French II (Pre: Fr. 101 or the equivalent)	SLC 215	8:00-9:50	3
Fr. 204S	Intermediate French II (Pre: Fr. 203 or the equivalent)	SLC 215	10:10-12:00	3
<b>German:</b>				
Ger. 102S	Elementary German II (Pre: Ger. 101 or the equivalent)	SLC 220	8:00-9:50	3
Ger. 204S	Intermediate German II (Pre: Ger. 203 or the equivalent)	SLC 220	10:10-12:00	3
<b>Spanish:</b>				
Span. 102S	Elementary Spanish II (Pre: Span. 101 or the equivalent)	SLC 147	8:00-9:50	3
Span. 204S	Intermediate Spanish II (Pre: Span. 203 or the equivalent)	SLC 147	10:10-12:00	3
<b>HISTORY:</b>				
Hist. 101S	World Civilization I	SLC 127	10:10-12:00	3
Hist. 102S	World Civilization II	SLC 133	8:00-9:50	3
Hist. 398S	Topics: Byzantium	SLC 127	8:00-9:50	3
Hist. 398S-2	Topics: Chinese Communism	SLC 133	10:10-12:00	3

<b>BUSINESS ADMINISTRATION:</b>				
B.A. 101E	Introduction to the Private Sector of Business	Par. 43	8:00-9:45	3
B.A. 115E	Mathematics of Business and Finance	Par. 43	6:00-7:45	3
B.A. 209E	Business Correspondence and Reports	Par. 34	6:00-7:45	3
B.A. 240E	Property Insurance	Par. 45	6:00-7:45	3
B.A. 241E	Life Insurance	Par. 45	8:00-9:45	3
B.A. 251E	Principles of Management	Par. 34	8:00-9:45	3
<b>COMMUNICATION STUDIES:</b>				
Comm. 240E	Introduction to Broadcasting	DDD 220	6:00-7:45	3
<b>COMPUTER SCIENCE:</b>				
C.S. 123E	Fortran Programming Fee: \$20	SLC 424	8:00-9:45	3
C.S. 124E	Cobol Programming Fee: \$20	SLC 424	6:00-7:45	3
C.S. 224E	Advanced Cobol and File Management Fee: \$20 (Pre: C.S. 124)	SLC 411	6:00-7:45	3
<b>ENGLISH:</b>				
Eng. 102E	Composition II (Pre: Eng. 100 or 101)	SLC 257	6:00-7:45	3
Eng. 152E	Western World Literature II (Pre: Eng. 151)	SLC 257	8:00-9:45	3
<b>ENGINEERING:</b>				
Engi. 200E	Fortran Programming Fee: \$20	SLC 424	8:00-9:45	3
<b>HISTORY:</b>				
Hist. 102E	World Civilization II	SLC 147	8:00-9:45	3
<b>MATHEMATICS:</b>				
Math. 100E	Pre-Calculus Mathematics (Pre: Two years of secondary school mathematics in Algebra and Geometry)	SLC 403	6:00-7:45	4
Math. 105E	Introductory Calculus I (Pre: Geometry, Algebra II, and some knowledge of Trigonometry)	SLC 405	6:00-7:45	4
Math. 106E	Introductory Calculus II (Pre: Math. 105)	SLC 403	8:00-9:45	4
Math. 111E	Calculus I (Pre: Math. 100, or at least three years of secondary school mathematics including Geometry, Algebra II, and topics in Trigonometry)	SLC 409	6:00-7:45	4
Math. 112E	Calculus II (A continuation of Math. 111)	SLC 405	8:00-9:45	4
Math. 314E	Functions of a Complex Variable (Pre: Math. 211 or consent of instructor)	SLC 334	6:00-7:45	3
Math. 334E	Linear Algebra (Pre: Math. 211 or consent of instructor)	SLC 409	8:00-9:45	3
Math. 432E	Introduction to Abstract Algebra II (Pre: Math. 331)	TBA	TBA	3
Math. 198, 298, 398, 498E	Topics in Mathematics (Pre: Varies with topics studied)	TBA	TBA	Variable credits
<b>MUSIC:</b>				
Mus. 101E	Introduction to the Materials and Literature of Music I	DDD 323	6:00-7:45	3
		DDD 323	8:00-9:45	3
Mus. 102E	Introduction to the Materials and Literature of Music II	DDD 323	8:00-9:45	3
Applied Music	Private Lessons Note: It is important that all students who register for Applied Music through the Evening College consult with Mr. William Gasbarro, Music Department Chairman, before completing their registrations.			
<b>PHILOSOPHY:</b>				
Phil. 101E	Introduction to Philosophy	SLC 204	6:00-7:45	3
Phil. 214E	Medical Ethics	SLC 204	8:00-9:45	3
<b>PHYSICAL EDUCATION:</b>				
P.E. 105E	Hygiene	W.A.	6:00-9:00 (Wed. only)	1
P.E. 106E	Hygiene	W.A.	6:00-9:00 (Wed. only)	1
P.E. 105-106E	Hygiene	W.A.	6:00-9:00 (Wed. only)	2

<b>EDUCATION:</b>				
<b>Pre-Session — May 22 to June 9</b>				
Ed. 532E	PEE: Art	SLC 206	5:00-8:00	Fuller
Ed. 579	Negotiations in Education	SLC 160	4:30-7:30	Rees
<b>First Session — June 12 to July 14</b>				
Ed. 510*	Psychological Foundations of Education	SLC 207	10:10-12:00	Hammer
Ed. 514*	Historical Foundations of Education	SLC 209	8:00-9:50	Barone
Ed. 520*	Tests and Measurements	SLC 220	8:00-9:50	Bellucci
Ed. 532B*	PEE: Science	SLC 160	10:10-12:00	Placek
Ed. 534*	Elementary School Curriculum (Pre: fifteen graduate credits)	SLC 316	8:00-9:50	Darte
Ed. 540I*	Special Methods in Secondary School Instruction: Social Studies	SLC 204	10:10-12:00	Fahmy
Ed. 575*	Group Dynamics	SLC 270	10:10-12:00	Rees
Ed. 578*	School Law	SLC 270	8:00-9:50	Rees
Ed. 594A	Workshop: Batik (June 26-July 14)	SLC 206	10:00-1:00	Fuller
Ed. 594B	Workshop: Painting	SLC 105	6:00-8:00	Sterling
Ed. 598A*	Topics: Anatomy of Teaching	SLC 204	8:00-9:50	Fahmy
Ed. 598B*	Topics: Treating Athletic Injuries	SLC 342	8:00-9:50	Aed
Ed. 598E*	Topics: Mainstreaming	SLC 316	10:10-12:00	Darte
*The 8:00 a.m. classes will meet from 6:00 p.m. to 7:50 p.m. and the 10:10 a.m.-12:00 noon classes will meet from 8:10 p.m.-10:00 p.m. from June 12 until all students can be accommodated at the regularly scheduled times.				
<b>Second Session — July 17 to August 18</b>				
Ed. 512	Social Foundations of Education	SLC 207	10:10-12:00	Barone
Ed. 515	Educational Planning in Developing Nations	SLC 405	8:00-9:50	Fahmy
Ed. 532D	PEE: Social Studies	SLC 405	10:10-12:00	Fahmy
Ed. 540K	Special Methods in Secondary School Instruction: Science	SLC 160	10:10-12:00	Placek
Ed. 542	Extra-Curricular Activities	SLC 209	8:00-9:50	Johnson
Ed. 598C	Topics: Education of Disadvantaged Youth	SLC 209	10:10-12:00	Johnson
Ed. 597-598D	Seminar: Education in the Bahamas (Limited Enrollment)	TBA	TBA	Rees
<b>ENGLISH:</b>				
<b>First Session — June 12 to July 14</b>				
Eng. 480S	Studies in American Literature	SLC 405	10:10-12:00	Gutin
<b>Second Session — July 17 to August 18</b>				
Eng. 420S	Studies in Renaissance Literature: Spenser and the Tradition of Renaissance Humanism	SLC 257	10:10-12:00	Kaska
<b>ENVIRONMENTAL SCIENCES:</b>				
<b>Second Session — July 17 to August 18</b>				
E.S. 401S	Topics in Environmental Sciences: Water Resources	SLC 405	MTTh 6:00-9:00	Staff
<b>HISTORY:</b>				
<b>First Session — June 12 to July 14</b>				
Hist. 398S	Topics: Tudor England	SLC 133	8:00-9:50	Berlatsky
Hist. 398S-2	Topics: Recent American Foreign Policy	SLC 215	10:10-12:00	Leach
<b>Second Session — July 17 to August 18</b>				
Hist. 398S	Topics: Byzantium	SLC 127	8:00-9:50	Berg
Hist. 398S-2	Topics: Chinese Communism	SLC 133	10:10-12:00	Shao
<b>MATHEMATICS:</b>				
<b>Eight-Week Evening Session — June 12 to August 4</b>				
Math. 314E	Functions of a Complex Variable	SLC 334	6:00-7:45	Staff
Math. 334E	Linear Algebra	SLC 409	8:00-9:45	Staff
Math. 432E	Introduction to Abstract Algebra II (Pre: Math. 331)	TBA	TBA	Staff
Math. 398-498-598	Topics in Mathematics	TBA	TBA	Staff