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WILKES COLLEGE *Bulletin*

1958 — 1959



WILKES-BARRE

PENNSYLVANIA

WILKES COLLEGE *Bulletin*

1958-1959

FALL AND SPRING
SEMESTERS — 1958-59

Vol. VII

Marks of An Educated Man . . .

1. He seeks truth, for without truth there can be no understanding, and without understanding the problems that separate us are insoluble.
2. He is able to communicate ideas in a manner that assures understanding.
3. He has faith in man. He respects differences because he knows how they have come to be. He fears uniformity because it confines both mind and spirit. He is aware of his own limitations and his neighbor's possibilities.
4. He possesses vision, for he knows that vision precedes all great attainments. "Where there is no vision, the people perish."
5. He cultivates inner resources and spiritual strength, for they enrich his daily living and sustain him in times of crises.
6. He has ethical standards by which he lives.
7. He is aware of the human struggle for progress and comprehends the forces that have assured or jeopardized this progress. He knows that man's progress requires intellectual vigor, moral courage, and physical stamina.
8. He is conscious of his responsibility as a citizen, and participates constructively in the social, economic, and political life of the community.

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COLLEGE CALENDAR

SUMMER, 1958

Wed., June 11 to Fri., June 13. Registration
 Mon., June 16 Classes begin
 Fri., July 4 Independence Day
 Fri., Aug. 8 Summer School ends

FALL, 1958

Tues., Sept. 9 to Fri., Sept. 12.. Freshmen Orientation
 Wed., Sept. 10, 9 a.m. to 12 n.. Freshmen Registration
 Thurs., Sept. 11, 9 a.m. to 2 p.m. Upperclassmen Registration
 Mon., Sept. 15 Classes begin at 8:00 a.m.
 Sun., Oct. 5 Reception—Parents of Freshmen
 Sat., Oct. 18 Homecoming
 Sat., Oct. 25 Final date to remove incompletes
 Mon., Nov. 3 Mid-Semester Reports
 Thurs., Nov. 6 to Fri., Nov. 14. Registration
 Wed., Nov. 26 Thanksgiving recess begins at noon
 Mon., Dec. 1 Thanksgiving recess ends at 8:00 a.m.
 Sat., Dec. 13 Christmas recess begins at 5:00 p.m.
 Mon., Jan. 5 Christmas recess ends at 8:00 a.m.
 Sat., Jan. 17 Classes end
 Mon., Jan. 19 to Tues., Jan. 27. Examination period

SPRING, 1959

Fri., Jan. 30 All-College Registration
 Mon., Feb. 2 Classes begin at 8:00 a.m.
 Sat., Mar. 14 Final date to remove incompletes
 Mon., Mar. 23 Mid-Semester Report
 Tues., Mar. 24 Easter recess begins at 5:00 p.m.
 Wed., Apr. 1 Easter recess ends at 8:00 a.m.
 Wed., Apr. 1 to Fri. Apr. 10... Registration
 Sun., May 3 Parents Day
 Sat., May 23 Classes end
 Mon., May 25 to Wed., June 3. Examination period
 Sat., June 6 Alumni Day
 Sun., June 7 Baccalaureate
 Mon., June 8 Commencement

SUMMER, 1959

Wed., June 17 to Fri., June 19. Registration
 Mon., June 22 Classes begin
 Fri., Aug. 14 Summer School ends

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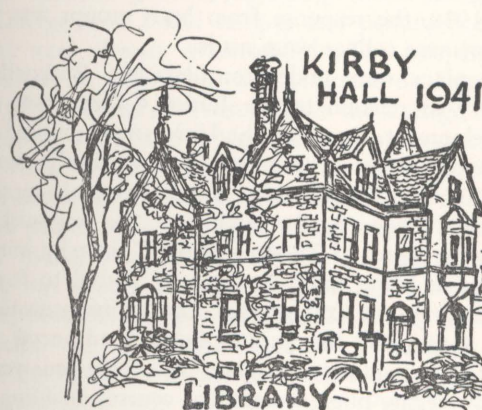
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A History of the College

TO PROVIDE opportunities for education comparable to those offered by other communities of the nation, Bucknell University, in 1933, established a two-year center in Wilkes-Barre and named it Bucknell University Junior College. Prior to that year, Wilkes-Barre and the Wyoming Valley comprised the largest community in Pennsylvania, if not in the United States, lacking a local college.

For several years the Junior College was maintained on an experimental basis while the interest of students in advancing their education and the willingness of citizens to support the new college were determined. By 1938, the response from both groups was known and plans for a permanent college were made.

While these plans were under consideration, Bucknell University adopted a policy in relation to the Junior College that significantly affected its development. In 1938, the University promised the College complete autonomy when its foundations were firmly established but offered to continue its sponsorship as long as such support was of value to the new college. At the same time, the responsibility originally assumed by the Board of Trustees of the University was transferred to a local Board as being more strategically placed to forecast future needs and to integrate the College as a community institution.

Under this agreement, the Junior College advanced rapidly and by successive steps extended its program to include four years of work. In 1946, the University offered extension courses enabling students to finish their junior and senior years in Wilkes-Barre, and the College Trustees expanded the facilities of the College and established an endowment of more than \$500,000. Having satisfied the requirements of the State, the Junior College was chartered as Wilkes College in June, 1947, and thus gained an independent legal status.

Early in World War II, from February, 1943, to June, 1944, a contingent of 250 Air Crew students was stationed at the College with the Sixth College Training Detachment. These cadets were quartered at the Hotel Sterling and received training in classes separate from the regular college classes.

Although the war deterred the growth of the College for a time, the impetus to education resulting from war experiences accelerated its development in the years immediately following the cessation of hostilities.

RECORD OF GROWTH

The first classes were held in a rented office building with an enrollment of 155 students, and a majority of the faculty were drawn from the staff of Bucknell University. After an experimental three years, the Administration and local Trustees appealed to leading citi-

zens to enable the College to move from rented quarters into a permanent home. The response was prompt and generous.

Mrs. John Conyngham and Admiral and Mrs. Harold R. Stark were the first donors, and John N. Conyngham Hall and Chase Hall, given in 1937, were dedicated by President Arnaud C. Marts of Bucknell on April 9, 1938. Five hundred residents of the Valley contributed to the funds for adapting these buildings to college use. Mr. and Mrs. Frederick Weckesser added the residence at 78 West Northampton Street to the College property in 1938.

In 1941, Mr. Allan Kirby's gift of the former residence of his parents with spacious grounds adjoining those of Chase Hall provided the College with a real campus and permitted expansion from quarters that were already overcrowded. The new building, named the Kirby Home for Education, was dedicated on December 2, 1941.

Members of the Board of Trustees gave the College three additional buildings during 1945 and 1946, which were subsequently named Isaac Barré Hall, in honor of the English statesman friendly to the cause of the American Revolution; Zebulon Butler Hall, in honor of the American patriot; and Gies Hall, in memory of Paul Gies, beloved professor of music, who died in 1948. Another adjacent property, Ashley Hall, was deeded to the College in 1946 by the heirs of the Ashley estate, Mrs. Marion A. Ahlborn, Dr. Henry A. Carr, and Mrs. Rocena Wolfe. In 1947, Mr. Andrew J. Sordoni presented the College with the lot at the corner of South Franklin and South streets, and later in the same year a lot on South Franklin Street was purchased as the site of a gymnasium, construction of which was completed in 1950.

In 1949, three additional properties were acquired. Timothy Pickering Hall was purchased by the Board of Trustees in the spring; Sterling Hall was left to the College through a bequest of Colonel Walter C. Sterling; and the President's residence was purchased with funds contributed specifically for that purpose by a friend of the College.

To provide adequate housing facilities for out-of-area women students, Mr. Gilbert S. McClintock, chairman of the Board of Trustees, gave his South River Street home to the College in 1951. Now called McClintock Hall, the building, together with the other four College residences, permits the accommodation of approximately one hundred boarding students.

The gracious old Sturdevant house on South Franklin Street was purchased in the summer of 1952. Its rooms have been converted into offices and classrooms for the departments of Education and Psychology.

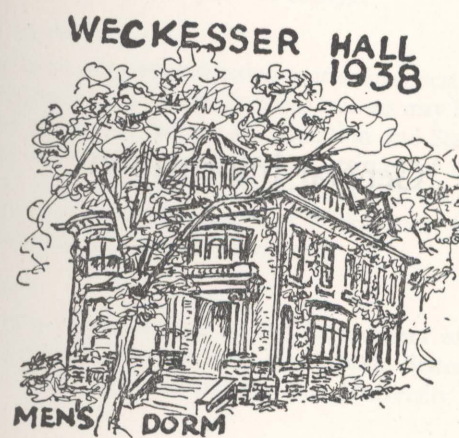
In the following year, Miss Anna Hollenback bequeathed the College her home on South Franklin Street. It is now used for offices for the Veterans Administration and the College's Guidance and Place-

ment Bureau. These offices were formerly located in Ashley Hall, which has now been converted into a men's residence to accommodate the increase in out-of-town students.

Since 1953 six additional properties have been acquired by gift and purchase. Of these properties David Roberts Warner Hall is used as a dormitory for men, and Harding House is reserved for the book store and a student lounge. The other properties have been reserved for parking areas or are temporarily used for class purposes.

In September 1957, the Harold R. Stark Hall was opened for use by the science departments. This building of approximately 50,000 square feet has been given by a group of anonymous friends and will provide students with the most modern facilities of study in the fields of biology, chemistry, and physics.

Fortunately, endowment has kept pace with the expanding facilities of the College so that the tuition of each student is supplemented by further income from endowment. Annual gifts from friends and alumni also add to the funds spent for the education of each student.



General Information

CURRICULA

The College offers programs leading to the Bachelor's degree in liberal arts, biology, chemistry, commerce and finance, and elementary, secondary, business, music, and nursing education, in addition to two years of work in physics and engineering. A student who successfully completes the physics or the engineering program may transfer as a junior to an institution granting degrees in his field.

TERMINAL PROGRAMS

Terminal programs in music, secretarial work, medical secretarial work, laboratory and medical technology, and pre-dental work are open to the student who desires only two years of college.

EXTENSION CLASSES

Bucknell University gives extension courses in education on the Wilkes campus. Graduate credit earned in these courses may be applied toward the degree of Master of Science in Education and State certification in guidance and administration. A person desirous of taking the degree of Master of Science in Education at Bucknell University may earn eighteen of the required thirty hours in Wilkes-Barre but must earn the remaining twelve in residence at Lewisburg.

ACCREDITMENT

Wilkes College is accredited by the Department of Public Instruction of the State of Pennsylvania, the Middle States Association of Colleges and Secondary Schools, and the University of the State of New York.

ADMISSIONS

An applicant for admission to the College should write to the Director of Admissions to request a personal interview and a set of application forms. Upon completing the forms, he should return them, together with a \$5.00 fee, to the admissions office.

Although it is desirable that the interview with the Director of Admissions or the appropriate Dean should take place at the College, other arrangements may be made in instances in which a trip to Wilkes-Barre would seriously inconvenience the student applying for admission.

Admissions tests will ordinarily be scheduled during the interview. An applicant who has taken the tests given by the College Entrance Examination Board may be excused from the examination administered by the College.

Upon receipt of an application, the Director of Admissions will obtain an official transcript from the secondary school or college formerly attended by the applicant. The Committee on Admissions will then consider the full record of the student and will notify him of its action as early as possible.

ADVANCED STANDING

A student who wishes to transfer to the College from another institution should follow the regular procedure for admission. He should request the college or university from which he desires to transfer to forward to the College a transcript and a letter of honorable dismissal. After the College has made a tentative evaluation of the record of the student, a faculty adviser will counsel him concerning his new schedule. The transferred credits will be placed on the Wilkes record of the student following a final evaluation at the end of his first term at the College.

A student who has no credits to transfer but who is equipped to enter advanced courses in college may enroll in such courses upon passing a placement examination. Although he will not receive credit for the courses that he has omitted, he will be spared the necessity of repeating work that he has previously covered outside of college.

MARKS

Five numerical grades are given by the College for academic work. These grades are:

Grade	Interpretation
4	Superior
3	Very Good
2	Good
1	Passing
0	Failing

Averages are computed by multiplying the grade earned in a subject by the number of credits. The totals thus obtained for each subject are added and the total for all subjects is divided by the total number of credits taken by the student. This quotient shall be called the point average.

USE OF MARKS

Although the primary purpose of any marking system is to inform the student of his achievement, marks are also used by the College as guides to counselling and for administrative purposes.

The faculty counsellor, before discussing future plans, must be informed concerning the student's ability, stability, interests, and achievement for it is these factors that suggest the possibilities for development of the student.

Marks and averages also indicate something of the values gained from College. It is generally admitted that superior and good grades indicate that a student is benefiting from his studies; it is similarly accepted that a student who makes a poor record is gaining little from College. Marks and averages are therefore used to determine whether or not the student is receiving sufficient benefit to remain in College. For the guidance of

both students and faculty, the following averages are required for advancement from class to class. To be admitted to these classes the following averages are required:

Class	Average
Sophomore	1.4
Junior	1.7
Senior	1.85

Any student failing to meet these requirements will withdraw from the College unless he appears before the probation and evaluation committee and convinces them that he merits another opportunity.

REQUIREMENTS FOR GRADUATION

To be eligible for graduation all requirements of the College and of the curriculum must be satisfied. These requirements are:

1. The completion of all subjects required for the degree.
2. A grade of 1 or better in each required subject.
3. An average of 1.85 for all courses.
4. An average of 2.0 for all subjects within the student's major.
5. Satisfaction of all requirements pertaining to the orientation and assembly programs and physical education.
6. Transfer students must complete a minimum of 30 credits at Wilkes.

TERMINAL CERTIFICATES

Students taking terminal courses must complete all course requirements and must average 1.7 credit points for all courses.

TWO-YEAR ENGINEERING AND PHYSICS CERTIFICATES

Certificates in engineering and physics will be awarded to students who have:

1. Completed 60 credits of required work and P. E. 101, 102, 103, 104, 105, 106.
2. Attained an average of 1.7 for all courses.

PROBATION

Any student not attaining the grade necessary to advance him to the next class will be put on probation for one semester. If, at the end of that period, he has not attained the minimum average for admission to his class, he will be dropped from college.

WITHDRAWALS

A student may withdraw from any course during the first two weeks of a semester without penalty. A student who withdraws from one or more courses after the first two weeks but who continues other courses will receive an "O" unless the Dean, faculty adviser and instructor agree that the student be permitted to drop the course without prejudice.

TAKING OF DEGREES

In order to receive his degree or certificate, a candidate must be present at commencement. If circumstances prevent his attendance, he must apply to the appropriate Dean for permission to take the degree or certificate *in absentia*.

COUNSELING

Each student will be assigned a faculty adviser at the beginning of his freshman year and will be expected to confer with this adviser concerning the schedule and other educational problems.

REGISTRATION

Every student is expected to register at the beginning of each term on the dates designated for this purpose. Late registrations may be accepted for two weeks following the beginning of classes; thereafter no registrations will be accepted. A student who registers after the registration dates will pay an additional charge of \$2.00.

STUDENT LOAD

Students shall ordinarily be limited to the normal load for the course of their choice. In the Liberal Arts this will be 16 hours with Physical Education; in the Sciences it will sometimes be 17 or 18 hours, and in Engineering it will vary from 17 to 19 hours. Any student wishing to carry an overload must obtain the approval of the Dean and his advisor.

The maximum load for students with a 2.0 average shall be 18 hours, and 20 hours the absolute maximum for all students.

Credits in excess of the normal load are charged at the usual rate per credit, unless it can be shown that a student is compelled to take an overload because of the rotation of courses within a department.

ATTENDANCE

Attendance at all classes is expected, and repeated absence is deemed a sufficient cause for failure.

Five consecutive absences from a class place a student on probation. He may be readmitted to the class only by action of the appropriate Dean and the Department Chairman concerned.

Each student is required to attend weekly assemblies during each of his four years. He will, however, be allowed the following number of cuts each year:

Freshman and sophomore year — four cuts.

Junior year — eight cuts.

Senior year — fifteen cuts.

These requirements must be satisfied to establish eligibility for graduation.

FACULTY

Inasmuch as the values to be derived from a college are less dependent upon its material resources than upon the character of its teachers and the quality of their interest in its students, the College has carefully selected its faculty for their training, experience, and personalities.

A cosmopolitan group, Wilkes teachers bring to the College a breadth of experience and of vision that enables them to treat their subjects in large perspective and an academic preparation that fits them to provide the intensive training essential to their various fields.

LIBRARY

Kirby Hall, the College library, houses approximately 40,000 volumes. The library is staffed by three professional librarians and a number of student employees.

Shelved on open stacks to encourage students and faculty members to make full use of them, the books, with the exception of those reserved for reference and as supplementary reading matter for particular courses, may be borrowed for periods of two weeks. Also available to members of the College community are some four hundred current periodicals.

TRANSFER OF CREDITS

Approximately forty per cent of the graduates of Wilkes have entered graduate or professional schools. It is recommended that the student who wishes to extend his education beyond the Bachelor's degree take the Graduate Record Examination or another appropriate professional examination in his senior year. Such examinations are generally required by graduate and professional schools, and it is best to take them at the end of the college course.

TRANSFER OF SUMMER CREDITS

1. A student who desires to study at another college during the summer must have his summer schedule approved by the appropriate Dean prior to enrollment in the other college if his summer work is to be credited toward graduation from Wilkes College.

2. When credits for the work taken in the summer at another college are requested at Wilkes, it will be necessary for this work to be evaluated. In some cases it may be necessary for a student to take examinations before credit is granted.

3. A student from another college who wishes to take summer work at Wilkes must secure the approval of the proper officer of his own institution if he expects to receive credit for such work.

EXPENSES

The flat tuition rate adopted by the College enables a student to gain an education in most of the curricula outlined in the catalogue at the rate of \$300.00 a semester for tuition. In music, the sciences and the secretarial studies, additional fees are charged for laboratory work and individual instruction. In the event a student takes fewer courses than are required in any given semester, he will pay \$20 per semester hour or \$300, whichever is less. If a student elects a heavier schedule than is required, he will be charged \$20 for each additional hour of credit. The tuition of \$300 also includes a charge for maintaining student activities.

ADDITIONAL FEES

Accident Insurance per school year..... \$ 7.00

Laboratory fee for

Bio. 101, 102, 111, 112, 113, 201, 202, 211, 212, 223, 241, 242, 251, 252

Chem. 101, 102, 104, 121, 122, 230, 231, 233, 241, 242, 251, 252, 271, 272

C.E. 103, 104

Phys. 111, 112, 150, 151, 152, 251..... 15.00

Laboratory fee for

S.S. 99, 101, 102, 107, 108, 109, 110, 115, 205..... 10.00

Fee for Ed. 207, 209, 210, Mus. Ed. 203-204..... 20.00

Chemistry Breakage Deposit

(any balance refunded)..... 10.00

Music—individual instruction:

Fifteen-week series of half-hour lessons in piano, organ, or wind instrument..... 35.00

Fifteen-week series of half-hour lessons in violin, viola, or cello with Mr. Liva..... 50.00

Fifteen-week series of half-hour lessons in voice with Mr. Isaacs..... 50.00

Fifteen-week series of half-hour lessons in piano with Mrs. Liva..... 50.00

A student registering for individual instruction in music will be charged for five lessons whether the lessons are taken or not. A student dropping his study after the fifth lesson will be charged for the full term.

Students registering for individual music instruction after the third week of the semester will be charged on a pro rata basis.

Rental of practice room..... 5.00

Use of diction laboratory..... 5.00

Music—group instruction:

Fifteen-week series of one-hour lessons in violin, viola, or cello in groups consisting of not less than three or more than five students..... 40.00

Music Education Laboratory Fee:

Rental of school instruments used in the Music Education Course for a fifteen-week period and the use of practice rooms..... 10.00

Charges for part-time students, students in the Evening School, and for semester hours beyond the normal load prescribed in regular courses:

Semester hour of study..... 20.00

Student activity fee for those taking less than fifteen or more than nine semester hours, or for any special student wishing to participate in activities..... 20.00

Charges for Summer School (eight weeks)

Semester hour of study..... 20.00

Laboratory fees (see above)..... 10.00, 15.00 & 20.00

Dormitory charges

Board and Room Per Semester..... 350.00

Bills for board and room in college dormitories are due before the opening of the semester. A deposit of \$50.00 is required to reserve a room.

Accident and sickness group insurance policy, required of all dormitory students, payable in full with first semester charges..... 25.00

Special Charges:

Fee to accompany application for admission..... 5.00

Change of schedule per credit hour..... 1.00

Special Examination..... 5.00

Transcript (no charge for the first copy)..... 1.00

Late Registration	2.00
Graduation fee (four-year students)	20.00
Convocation fee (two-year students)	12.50

Charges are subject to adjustment to conform to changing price levels.

PAYMENTS

A \$50.00 deposit or 50% of the total charge for tuition and fees, whichever is less, is required at the time of registration. The balance of the charges for the semester is payable on receipt of an itemized bill.

No students may take an examination until satisfactory arrangements have been made with the Comptroller for the payment of all bills. No student may take a final examination until all financial obligations to the College have been satisfied.

WITHDRAWALS AND REFUNDS

Refund of tuition will be made to students who withdraw voluntarily from the College while in good standing under the following conditions:

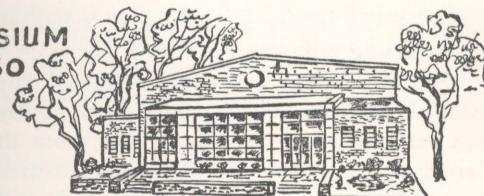
During the first six weeks of a term, one-half the tuition will be refunded upon request if the withdrawal is made for adequate and satisfactory reasons.

Tuition for unfinished courses will be refunded to all students ordered to active duty under the Selective Service Act or by the Organized Reserve Corps.

Refund of room and board (dormitory charges) will not be made except under special conditions.

No courses may be dropped after the second week, except with approval of the student's faculty adviser and the Dean.

GYMNASIUM
1950



Student Welfare

CAREERS LIBRARY

The Careers Library is intended to obviate the one great factor in occupational maladjustment of American youth, namely, scarcity of information. It is an instrument of the consulting service provided not only for seniors but for all classes in the College.

A consultant on careers, maintained by the College, has established and continues to maintain contact with representative industries and professional associations throughout the country. From these primary sources comes first-hand information on careers. Thousands of pages culled from this raw material provide background information, which is under constant revision. Individual attention is given the problems and queries of each student as he seeks to set himself in the right vocational direction.

One section of the library is devoted to scholarships, fellowships, and company training programs. Another has to do with careers from a geographic point of view. Forty house organs, employee magazines, and professional periodicals are included in the collection as are some six hundred catalogues and bulletins from more than five hundred American colleges and universities, in addition to announcements from foreign institutions of learning, especially at the graduate or professional level.

The Careers Consulting Service is not concerned with placement but rather with the way to a career. Long before graduation a student should have availed himself of this service.

COUNSELING

The College considers counseling one of the most effective ways in which to encourage the development of its students. It considers each student's personal, educational, and vocational objectives at the time of his application so that, as far as possible, it can plan its academic program to enable him to realize those objectives.

Upon entering the College, each student participates in a testing program, the purpose of which is to provide all of those who are concerned with his progress with information about his abilities, interests, and aptitudes. He has opportunities throughout his college career to consult with his faculty adviser concerning his scholastic progress or social and personal problems with which he needs help.

The Deans cooperate with faculty advisers in providing students with information and guidance wherever possible, and the College urges students to avail themselves of their services.

The guiding principle of all Wilkes counseling is to encourage the student to discover his own abilities and potentialities and to assist him in making sound, independent decisions.

ORIENTATION PROGRAM

The transition from the directed work of the secondary school to the independent and more intensive work of the College occasionally causes difficulty. To assist students in making an early adjustment, several days at the beginning of the term are set aside for discussions with freshmen. This program ranges from individual conferences to lectures on the meaning of a college education.

During this first week, new students take aptitude, interest, foreign language, and English-placement tests. They also discuss their plans and hopes with their faculty advisers and arrange schedules under their guidance. The week also gives the new students an opportunity to become acquainted with one another and to learn about student activities.

Throughout their first term small groups of freshmen meet once a week with representatives of the faculty. They discuss informally, some of the problems of college adjustment. By placing responsibility upon the student for planning and conducting these discussions, the College encourages clear thinking, initiative, poise, and breadth of view.

COLLEGE CONSULTATION SERVICE

The College Consultation Service offers individual assistance to students with personal problems. Students who desire such help may apply directly to the Consultation Service staff for appointments. Interviews with the specially trained staff are conducted on an entirely confidential basis.

New students or those who are unacquainted with this resource may be referred to the Service by the Dean of Men, the Dean of Women, or any other interested faculty member.

COMMUNITY PROGRAMS

In addition to its regular classes, the College occasionally offers non-credit programs for groups and organizations desiring specialized training. All such programs are adapted to the needs and desires of the sponsoring groups and emphasis is placed upon practical applications rather than theory.

Some idea of the services that are available may be gained from a statement of services that already have been offered.

During the war, special courses in drafting, mathematics, and engineering were offered to prepare persons for work in defense plants. Currently, a group of underwriters are studying life insurance problems and policies to increase their understanding of the services they sell. Over a period of years, special courses in musical literature have been offered by the Department of Music, and a refresher course has been offered for chiropractors from eastern Pennsylvania to prepare them

for the examination given by the State Board of Medical Examiners.

As the College expands its faculty and facilities, it will be able to offer similar courses in economics, selling, and advertising; and it is hoped that technical services in chemistry may be available to small industries requiring laboratory services that cannot be maintained economically in their industrial plants. The Economics Department of Wilkes College is engaged in research projects on a community basis.

PLACEMENT OFFICE AND STUDENT EMPLOYMENT

The College maintains a placement office in Hollenback Hall, South Franklin Street. One purpose of the office is to help undergraduates to find part-time employment. More than one-third of the students earn part of their expenses, and the office has been particularly helpful to this large group. Students desiring such part-time work should communicate with the Director as early in the school year as possible.

Another important service rendered by the Placement Office is that of assisting the graduating student to find permanent employment in a position suitable to his talents and training. Students who desire this service should see the Director early in the senior year. The Office will, moreover, be pleased to extend such assistance to any graduate of the College.

SPECIAL SERVICES

Accident and Sickness Insurance. Accident and sickness group insurance is required of all dormitory students, but is optional with day students. The plans are described in material mailed to all applicants upon admission to the College.

The accident policy provides reimbursement for expenses arising out of any accident in which the student is involved during the entire college year. Reimbursement is made up to \$500.00 for each accident.

The sickness policy provides additional reimbursement for all expenses attendant upon any illness to which the student becomes subject during the college year. Under this coverage there is reimbursement up to \$200.00 for each illness.

Broad in scope, the plan covers all the student's illnesses and accidents, regardless of how or where they may occur. Benefits under the plan are paid *in addition to* benefits to which the student is entitled under any personal policy or membership in any hospital association.

The fee for accident and sickness coverage is \$25.00 payable at the time of registration. It is underwritten by the Mutual Benefit Health and Accident Association of Omaha and is under the supervision of Howell & Jones, Inc., Wilkes-Barre.

Accident Insurance. Accident insurance must be carried by all students to protect them from unnecessary loss during the school year. To

provide this coverage at a minimum the College has arranged for group coverage with the Mutual Benefit Health and Accident Association of Omaha. The fee of \$7.00 provides protection for the full period of the College term and is payable at the beginning of the term.

Day students who wish to obtain both health and accident insurance may buy this more comprehensive coverage at the same rate paid by boarding students.

Lockers. The College provides a number of conveniently located lockers for students who wish to safeguard their personal belongings. A student may rent one of the lockers at the rate of \$1.00 a year, one quarter of which will be refunded when he surrenders his key. The fee is payable at registration.

Student Activities

The scholastic program is supplemented by a representative group of student activities, organized and controlled by the students. They supply values which cannot be realized through academic work alone. Each student is encouraged to participate in at least one activity during the year.

STUDENT GOVERNMENT

To provide a co-ordinating agency, to establish social standards, and to assure responsibility, a Student Council, representative of all students, is elected annually. The Council is responsible for planning, supervising, and executing the program of student activities.

ASSEMBLY COMMITTEE

Approximately half of the weekly assembly programs given during the academic year are planned and presented by students. The Assembly Committee, to which freshmen are elected each fall to replace members who have been graduated, assists the administration and student organizations in arranging these programs and awards a trophy to the group that presents the best program of the year.

DRAMATICS

Students interested in drama present several one-act plays and two major productions each year. The students are given training in the arts of the theatre: acting, make-up, scenery-building, costuming, and stage lighting. The College Theatre serves as workshop for experimental productions.

COLLEGE BAND

The College band, organized for the furtherance of instrumental experience, performs at athletic events and gives concerts throughout the year.

The College owns instruments which are used by musicians who do not have their own bass horns, drums, etc. A uniform is provided for each member at the beginning of the year. The band library is constantly supplemented by the best martial and concert music.

CHORAL CLUB

The College maintains a mixed chorus with membership open to all students who pass an elementary voice test. Previous vocal experience and the ability to read music at sight are important but not required of members. The chorus meets once each week for the study of choral literature covering various periods of music history and presents several programs before the College community and the general public each semester.

The Choral Club is directed by a member of the faculty. It elects its student officers and management.

ORCHESTRA

The Wyoming Valley Philharmonic Orchestra, organized under the aegis of the College in the fall of 1951, presents a series of three symphony concerts annually. Membership in the orchestra is open to talented instrumentalists in the student body.

MADRIGAL SINGERS

This small group specializes in the madrigal works of sixteenth- and seventeenth-century European composers. Its Christmas program is one of the most attractive features of the Town & Gown Concert Series at the College.

PUBLICATIONS

Amnicola, a yearbook; the *Beacon*, a newspaper; and *Manuscript*, a literary magazine, are published by the students. Those interested in writing, photography, art and advertising have an opportunity to join the staffs.

DEBATING

Debating has proved particularly popular with students preparing for the law or interested in public speaking. A number of intercollegiate debates are arranged each year.

CLUBS

Special clubs stimulate and satisfy individual interest in academic, professional, and artistic fields. These clubs, developed cooperatively by students and faculty, are kept quite flexible in order that they may be easily adapted to current interests.

ATHLETICS

Intercollegiate sports schedules are maintained in football, baseball, basketball, soccer, and wrestling. Colleges within the state and in adjacent states are met in these sports. Men may substitute an intercollegiate sport for physical education if they meet departmental requirements.

A program of intramural sports and physical education gives every man an opportunity to participate. Basketball, touch football, volleyball, and bowling are some of the sports available.

The athletic program for women includes dancing, folk and modern; bowling, basketball, softball, and swimming.

ATHLETIC CODE

Athletics are an integral part of the activity program at Wilkes College, and as such are subject to policies set by the faculty and administration, and approved by the Board of Trustees.

In arranging the extra-curricular program, whether it be athletics, dramatics, debating, or the yearbook, each student is responsible for determining how much participation is desirable for him. Whenever participation in activities detracts from the scholastic achievement of the student, it also tends to detract from development of those individual qualities to which the activity should contribute.

It is believed, therefore, that at Wilkes College a balance must be maintained between scholastic and extra-curricular activities so that scholarship will not be impaired by excessive participation in student activities.

In the athletic phase of the extra-curricular program at Wilkes College a particular problem is posed because the college maintains athletic relations with other colleges. The experiences of other colleges have demonstrated beyond any doubt that there can be neither fair competition nor good sportsmanship in intercollegiate contests if relations are not confined to colleges adhering to similar policies.

The emphasis upon intellectual development at Wilkes College makes it infeasible to emphasize athletics. It is the belief of the administration and faculty that high scholastic standards cannot be attained when too much emphasis is placed upon any one phase of an extra-curricular activity. Therefore, the college gives no scholarships for the sole purpose of encouraging athletes to attend Wilkes College. Athletes will receive the same consideration in admissions, in the classroom, and in the awarding of scholarships that is given to other students.

Should the winner of the scholarship wish to participate in any student activity, he is free to do so. In no instance will the continuance of his scholarship depend upon such participation. High scholarship and good influences will entitle any scholarship recipient to the retention of his award.

In arranging for intercollegiate competition, Wilkes College seeks to establish permanent ties with colleges adhering to the same policies of admission, maintaining similar scholastic standards, and offering assistance on the same basis.

Scholarships and Awards

GUIDING PRINCIPLES

Although Wilkes College was established to bring educational opportunities to the young people of northeastern Pennsylvania, it has become clear with the passing of the years that many of our most promising students still require financial assistance if they are to develop those talents that lie latent within them.

To assist these able and ambitious students, friends of Wilkes College contribute each year to a substantial scholarship fund that enables the College to more adequately serve those for whom it was created.

Because these funds are given by generous men and women, who are desirous of helping young people in their efforts toward self-improvement and self-development, it is essential that worthy and able students be carefully selected and that the purpose for which these funds have been given be clearly understood.

With the intention of assuring this understanding, the following principles have been adopted:

1. Awards shall be limited to students who have demonstrated ability, ambition, and need, plus a desire to attend Wilkes College.
2. No application for scholarships shall be considered before the student has been admitted to the College.
3. Every applicant for scholarship aid shall be expected to submit confidential information pertaining to his financial needs and his record of achievement.
4. No scholarship shall be granted until the student has demonstrated a sincere desire to gain an education and has made every reasonable effort to finance as large a portion, as possible, of the costs of this education.
5. It is anticipated that the family will cooperate with the student and the College by offering the maximum of encouragement and support. When such home 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.
6. No student may simultaneously hold more than one scholarship.
7. Scholarships will be forfeited if the student, at any time, carries fewer hours than are normal for the course.

INSTRUCTIONS TO THE APPLICANT

1. To establish eligibility for a scholarship, the student must first apply for admission to the College and must be accepted. *Application for admission should be made prior to March 1.*

2. Students requiring aid *shall indicate their need on the application for admission to the College.*
3. Students indicating such need *shall receive an application for scholarship aid with their notification of admission to the College.*
4. The student seeking scholarship aid shall then establish his need for assistance by providing on the application the information that is requested. *This application should be submitted to the Director of Admissions before April 1.*
5. *The applicant is responsible for the submission of personal references from three teachers or other members of the community. These references should be mailed directly to the Director of Admissions prior to April 1.*

TYPES OF SCHOLARSHIPS

Competitive scholarships are offered each year to students from the first quarter of their high school class who make outstanding records on the scholarship examinations given at the College on the last Saturday in April. All participants in this competition must apply for admission to the College prior to the date of the examination.

LEADERSHIP SCHOLARSHIPS

Leadership Scholarships shall be awarded to selected high school graduates who have demonstrated leadership in their academic work, the arts, or in student and community activities.

As these awards are made in expectation that the qualities of leadership manifested in high school will be demonstrated in the College, the scholarships will be awarded for one year only, but will be renewed annually if the student's performance in College measures up to his promise in high school.

Music and art scholarships are available to a limited number of students who possess marked aptitude for either music or art.

PUBLICATIONS

Scholarships are offered to students holding responsible and demanding positions on the student publications. These scholarships are awarded as follows:

AMNICOLA		Years of Service		
Position	4	3	2	
Editor in Chief	Full Tuition	Three-quarters Tuition	Two-thirds Tuition	
Business Mgr. Assistant Editor Picture Editor	Three-quarters Tuition	One-half Tuition	One-third Tuition	

BEACON		Years of Service		
Position	4	3	2	
Editor in Chief	Full Tuition	Three-quarters Tuition	Two-thirds Tuition	
Business Mgr. News Editor Sports Editor Feature Editor	Three-quarters Tuition	One-half Tuition	One-third Tuition	

Name Scholarships have been created by friends of the College for assistance of able and worthy students.

Adolph Herskowitz Memorial Scholarship Fund. For a period of years Mr. Ernest Herskowitz is giving funds that will assist a worthy student to gain an education.

William B. Schaeffer Memorial Scholarships. In 1951 a substantial bequest was left to the College by Mr. Schaeffer with the thought that it would be used 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.

Mr. Andrew J. Sordoni has endowed a scholarship which will be used to assist students of unusual promise and proved ability.

Mrs. Lewis H. Taylor left a bequest to the College for the assistance of worthy students. In appreciation of this gift the Board of Trustees has set aside the income from the bequest to be used in assisting students of outstanding scholastic ability who without assistance could not gain a college education.

Dickson Memorial Scholarships. Funds for four scholarships have been given to the College by the Trustees of the Allan H. and Kate P. Dickson Memorial Trust. These half-tuition scholarships will be granted to students of high scholastic achievement and aptitude who have also demonstrated leadership in student affairs during their high school years.

The William H. Conyngham Memorial Scholarship is awarded annually by Mrs. Conyngham in memory of her late husband, a friend and neighbor of the College, and for years an outstanding leader in business and community life.

Jessie Sturdevant Memorial Scholarship awarded to a student of unusual promise and ability has been made available from the interest of a fund established by the late Miss Sturdevant.

John Welles Hollenback Scholarship. Miss Anna Hollenback has created a scholarship in memory of her father, John Welles Hollen-

back, and the annual interest of the principal is used for scholarship purposes.

The Richard H. Royer Scholarship is awarded annually to a student who has demonstrated outstanding ability in his studies and in student activities.

Mr. Harland W. Hoisington has given an annual scholarship to assist students of high scholastic ability.

The John Lloyd Evans Memorial scholarship was created by Rulison Evans in memory of his father, a life-long lover of music, conductor of the Dr. Mason Glee Society, conductor of The Sheldon Choral Society and the Wilkes-Barre Mixed Choral Society. The scholarship of \$300 will be awarded to a senior in music or music education who has demonstrated outstanding ability in his chosen field of study.

The W. S. Carpenter Memorial Fund was established in 1956 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 department.

The Business and Professional Women's Club of Wilkes-Barre offers to an outstanding woman student of the College a scholarship each year. The education committee of the club in cooperation with the administration choose a young woman who shows promise of making an outstanding contribution in business or professional life following graduation.

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.

COST OF EDUCATION SCHOLARSHIPS

A number of local firms make annual gifts to the scholarship fund so that the College may be able to provide needed assistance to able and ambitious students. These grants amount to one-half tuition plus a small amount to cover some of the difference between the tuition changes and the cost of education.

In announcing the donors of these scholarships, the College also wishes to acknowledge its appreciation to the donors.

FRANK E. BALDWIN COMPANY	MELODY SHOE CORPORATION
BARRE FOOTWEAR COMPANY	MINERS NATIONAL BANK
CENTRAL SLIPPER COMPANY, INC.	FRANK E. PARKHURST, INC.
CUSTOM PRODUCTS	PENNA. POWER & LIGHT CO.
EASTERN PENNSYLVANIA SUPPLY COMPANY	PIONEER MANUFACTURING CO.
FIRST NATIONAL BANK	PLANTERS NUT & CHOCOLATE COMPANY
FOWLER, DICK AND WALKER	J. B. POST COMPANY
FOWLER & WILLIAMS	PRESTIGE SHOE CORPORATION
FRANCONI AUTO PARTS	SECOND NATIONAL BANK
FRANKLIN FEDERAL SAVINGS & LOAN	TRIANGLE SHOE STORES
GENERAL ROOFING COMPANY	WILKES-BARRE DEPOSIT & SAVINGS BANK
GLEN ALDEN CORPORATION	WILKES-BARRE IRON & WIRE WORKS
C. F. GOERINGER	WYOMING NATIONAL BANK OF WILKES-BARRE
CONSTRUCTION CO., INC.	WALBEN, INC.
HARRY F. GOERINGER & SONS	
GEORGE W. GUCKELBERGER	
KANAAR CORPORATION	
LESTER PONTIAC	

AWARDS

Each year a number of awards are given for outstanding scholarship in selected fields.

The Engineering Award is given by the faculty of the Department of Engineering to the student whose achievement in the two-year engineering course is most outstanding.

The W. F. Dobson Award in Accounting is given to the graduate who has made the most outstanding record in accounting during his four years at the College.

The L. J. Van Laeys Award in Journalism is given to the graduate who has done the most creditable work in journalism courses.

The Wall Street Journal Award is granted to a graduate in commerce and finance for high scholarship in his field of concentration.

The Outstanding Graduate of the Year Award is given by the Wilkes College Alumni Association to the graduate considered by a special faculty committee to have made the strongest contribution to the life of the College.

The Mrs. James McKane Awards of \$25 each are made to the man and woman in the junior class who have ranked highest in their class throughout their first two years of college.

The Pennsylvania Institute of Certified Public Accountants Award is granted to a graduating senior who has received high grades in accounting and demonstrated qualities of leadership in other activities.

The Chemistry Award is presented by the Department of Chemistry to the graduate who has maintained the highest scholastic average throughout the four years of the chemistry course.

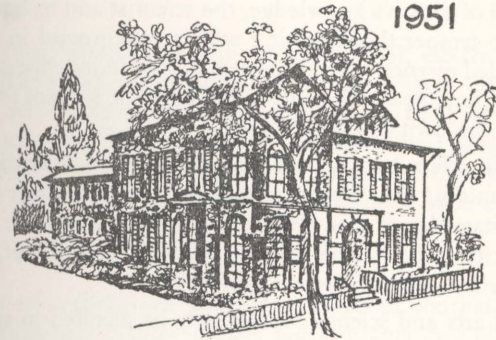
The Deans' Scholarship Awards are granted to the man and woman in the graduating class who have excelled in scholarship throughout their four years at the College.

The Wilkes Faculty Women's Award is given to the sophomore woman who has ranked first in her class during her freshman year.

The John Wilkes, Inc., Annual Forensic Award is made annually to the Wilkes student who has demonstrated outstanding ability in the field of forensics during the previous year.

The Linda Morris Award is given by Mr. and Mrs. Herbert Morris in memory of their daughter, Linda, to that young woman who has maintained the highest academic record through the first three years at Wilkes College.

McCLINTOCK HALL
1951



Preparation for Professions and Vocations

Training and skill are required in all fields, but they alone are not enough. The world needs men possessing broad vision as well as technical competence. The telegraph, radio, airplane, and finally atomic research have rendered obsolete the isolated nationalism of yesterday. As science and technology reduce the size of the world and man's mobility increases the tempo of competition, a liberal education becomes a necessity rather than a privilege.

Two thousand years ago, Aristotle wrote: "Educated men are as much superior to uneducated men as the living are to the dead." The character of a man's world has always been determined by his understanding of the motives of other men. To offset the trend of specialization which limits the field of a man's knowledge, the scientist and technologist need increasingly to temper their training with a background in the humanities, the distilled essence of the experience of mankind. Specialized training should be combined with courses that help the student to understand human nature, his own and other men's.

The College offers two opportunities: a general education for life, and specific training for various vocations. The general education develops understanding of our civilization and prepares the student for constructive citizenship. The specific training consists of courses required for selected occupations and professions.

The liberal arts and science courses may be adapted to specific vocations by the selection of congenial fields of concentration and of appropriate electives. A prospective journalist who enrolls for the Bachelor of Arts course may major in one of the social studies and choose electives in English, literature, and other subjects useful in his future work.

In engineering and in commerce and finance the course of study is, by contrast, primarily technological, although courses from the liberal arts program are required and the choice of electives is left to the individual preference. Students find the engineering course a useful preparation for our mechanized civilization even though they do not make engineering their life work. The curricula in engineering and in commerce and finance will also prepare those who plan to teach these subjects.

BUSINESS ADMINISTRATION

Training applicable to most fields of business is offered in the various programs of the commerce and finance curricula.

The commerce and finance curricula cover business principles and practices; they also include electives in liberal arts. This diversification of program enables the student to secure a comprehensive foundation for a

business, secretarial, public service, or teaching career. Young men and women with this cultural background find themselves eligible for opportunities closed to those lacking such training.

CHEMISTRY

A steady demand for chemists and chemical engineers comes from industry, government (including the Armed Forces), and education. The variation in kinds of employment is extreme. In industry, the chemist may be in basic or development research; in pilot plant work, production, administration, sales, or personnel. Advanced study is encouraged by the chemical industry; while teaching positions require the B.S. or doctorate degrees.

ENGINEERING

The first two years of work in chemical, civil, electrical, industrial, and mechanical engineering may be taken at Wilkes College. At the end of the second year, students may transfer their credits to other engineering schools. With slight modification of their program, students may complete the first two years of work in such additional types of engineering as aeronautical, mining and metallurgical, and administrative.

JOURNALISM

A number of well-known graduate schools of journalism require a preliminary four-year college course, but aspirants may also follow the old-fashioned method of securing experience on local newspapers and working their way up. Almost any type of college work will be found applicable to the broad demands made upon the newspaper reporter and editor, although English composition is fundamental.

The Bachelor of Arts degree with an English major is the most popular choice of journalism students, but the science and other courses also prove useful, since the newspaper reports all phases of human activity. The increasing interests of the United States in other countries make a knowledge of foreign languages particularly desirable in preparation for responsible positions as foreign correspondents.

Journalism students may gain practical experience by working on the staff of one of the student publications: the *Beacon*, *Amnicola*, or *Manuscript*.

LAW

Preparation for the practice of law is based on the fundamental liberal arts: English, history, political science, economics, sociology, natural science, languages, and mathematics. Most law schools do not specify a required major in undergraduate work.

LIBRARY WORK

Librarians are generally expected to complete a four-year college course before beginning their specialized library training. Foreign languages, English, science, history, economics, sociology, or education constitute appropriate major fields. Many library schools also require a knowledge of two foreign languages. Proficiency in typewriting is desirable.

MUSIC

The aim of the Wilkes music curricula is two-fold: to interest the many in music as an avocation that may lead them to participate actively in musical organizations and to assist the few who have special talents along the road to professional careers as teachers or performers. Although students who concentrate in music may commence their study of applied music at Wilkes, high quality pre-college training is very desirable.

The curriculum leading to the degree of Bachelor of Science in Music Education fully equips students to obtain certificates to teach music in the public schools of Pennsylvania. The Bachelor of Arts degree with a major in music represents the fulfillment of the fundamental purpose of the liberal arts program, "an education for living."

MEDICINE

Wilkes offers a pre-medical course that is adapted to the requirements of the various medical schools. The latter have, in recent years, restricted their enrollment, and most of them scrutinize closely the qualifications of applicants. Medical aspirants should determine as soon as possible, though consultation with the Deans and their advisers, exactly what demands they must meet.

MINISTRY

The various churches differ widely as to the training required of prospective ministers. The pre-theological student should learn the requirements of his denomination and its divinity schools. In general, the liberal arts course, with a major or electives in religion and philosophy, is appropriate.

NURSING

The demand for nurses prepared to assume administrative, supervisory, and instructional duties has for years far exceeded the supply of trained personnel. In consequence, schools of nursing and hospitals are constantly seeking qualified nurses. To enable graduates of approved schools of nursing to obtain the necessary preparation, the College offers a program leading to the degree of Bachelor of Science in Nursing Education. A minimum of sixty-four college credits is needed to fulfill the requirements for the degree.

Extension courses in Nursing Education may be arranged by writing to the Chairman of the Department of Nursing Education.

High School graduates desiring college experience before entering a school of nursing may receive guidance in the selection of a program suited to meet their individual needs.

The College maintains a cooperative relationship with local hospital schools of nursing and provides instruction in the physical, biological and social sciences.

PHYSICS

The first two years of work leading to the degree of Bachelor of Science in Physics may be taken at Wilkes College. After that, students may transfer to other colleges to complete their course. The program at Wilkes has been carefully designed to fulfill the requirements of those colleges to which students are likely to transfer.

In the modern world, the application of physics to everyday life is becoming more and more common but is, perhaps, not sufficiently recognized or understood. The tools of communications, electronics, transportation, the motion picture, illumination, engineering, manufacturing, and medicine (to mention but a few of the many activities of modern industrial civilization) are developed and perfected by the application of the fundamental laws of physics.

PSYCHOLOGY

World Wars I and II stressed the importance of the application of psychology in many diversified fields. Since then the need for graduate work and specialized training has been recognized.

Liberal arts preparation on the undergraduate level, consisting of a sound foundation in psychology, biology, sociology, and related fields, provides an excellent background for work in graduate schools.

Opportunities for the professional psychologist are available in college teaching, clinical work, education, business, and industry.

SOCIAL WORK

The demand for trained social workers has grown enormously in recent years. Taxpayers rebel against the wastefulness of haphazard distribution of charity as a matter of political patronage. Governmental agencies, municipal, county, state, and federal, are realizing the necessity for a professional approach to the problems of unemployment, poverty, and crime. Wilkes offers a pre-social-work program. Sociology, supplemented by work in psychology, biology, and allied fields, provides a valuable background.

SPEAKING AND DRAMATICS

The College offers preliminary work in speech. Courses in speech and

dramatics and practical experience in debating and play production afford opportunity for development in this field.

TEACHING

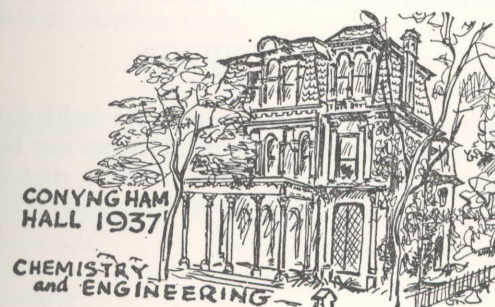
A teacher's training depends upon the kind of teaching contemplated. For college and university work the best institutions require advanced degrees; their faculty members ordinarily take graduate work in the field in which they concentrated as undergraduates. Prospective teachers of English, history, sociology, take the Arts degree; students who expect to teach in the schools of science take the Bachelor of Science degree or degrees in such specialized fields as engineering.

Certification for public-school teaching is usually based on the following requirements: the college degree, specialized courses in education, and a measure of specialization in teaching subjects. Wilkes College is authorized by the State Department of Public Instruction to prepare elementary- and secondary-school teachers in most fields of instruction.

PART-TIME STUDY

Promotion or advancement is often made possible by additional training. It is sometimes practicable for employed persons to continue their education without giving up their positions. In its desire to be of the widest possible service to Wyoming Valley, Wilkes welcomes part-time and special students. (See *Evening Division*, page 150.)

Anyone interested in a career not included in this list of the major professions and vocations should consult the Director of Admissions.



Degree Programs

The basic requirements for degree programs are outlined on the following pages. All courses listed are required. Electives may be chosen to satisfy the interests of the students and to meet the requirements for graduation within each major program as conditions may require.

BACHELOR OF ARTS

PURPOSE

The liberal arts program is primarily concerned with individual development and with the cultivation of an understanding of our civilization and of the men who have created it and lived in it. Its studies are concerned with men and events, thoughts and institutions, art and science. It creates breadth and perspective as opposed to narrow skills.

NATURE OF THE PROGRAM

A liberal program must necessarily include a wide range of subjects if it is to cultivate understanding of the thoughts, ideals, and institutions upon which our civilization is based. For the sake of simplicity, these subjects are classified into three divisions in which the student will carry on his explorations and from which he will select his major study.

DIVISIONS

<i>Humanities</i>	<i>Social Sciences</i>	<i>Sciences</i>
Art	Economics	Biology
English	Education	Chemistry
Foreign Languages	History	Physics
Mathematics	Political Science	Psychology
Music	Sociology	
Philosophy		
Religion		

SELECTION OF A MAJOR

To provide depth of knowledge, some concentration is required. It is desirable that a major be elected as early as possible, and it is essential that it be elected before the beginning of the junior year. Students who expect to take the Bachelor's degree in art, biology, mathematics or music choose their major when they enter the College.

A major may be taken in any subject listed in the divisions except chemistry, education, and physics. The requirements for each major are specified in the section headed "Description of Courses" in the catalogue.

A major may also be taken in social science. The social-science major requires a total of thirty-six hours in economics, history, political science, and sociology; eighteen hours must be taken in one of these and at least six hours in each of the other three. Social science courses required in the first two years shall not count toward this major.

Students preparing to teach in the public schools are required to take twenty hours in education to obtain certification. It is therefore impossible for the prospective teacher of social studies to satisfy all of the requirements mentioned above. For that reason, a student preparing to teach social studies in the public schools will receive credit toward the social science major for all required courses in economics, history, political science, and sociology.

MINIMUM REQUIREMENTS IN CREDITS
FOR
LIBERAL ARTS MAJORS

Major Subject	HUMANITIES				
	Major	Humanities	Social Sciences	Sciences	Free Elective
Art	36	32	15	6	30
English	40	24	15	6	35
Foreign Language	24	31	15	6	45
Mathematics	28*	34	15	14	30
Music	47	45	15	6	14
Philosophy-Religion ...	24	37	15	6	38

Major Subject	SOCIAL SCIENCES				
	Major	Humanities	Social Sciences	Sciences	Free Elective
Economics	24	37	15	6	39
History	24	37	15	6	39
Political Science	24	37	15	6	39
Sociology	24	37	15	6	39
Social Science	36	37	15	6	27

Major Subject	SCIENCES				
	Major	Humanities	Social Sciences	Sciences	Free Elective
Biology	31	32	15	31	15
Psychology	24	37	15	9	35

*Does not include Math. 105. If a student is required to take Math. 105, it will count as a free elective.

BACHELOR OF ARTS

General requirements for all majors other than art, biology, mathematics, and music

FRESHMAN YEAR

First Semester			Second Semester		
Title	Number	Cr.	Title	Number	Cr.
Biological Science ¹	Bio 100	3	Composition	Eng 102	3
Composition	Eng 101	3	Fundamentals of Speech	Eng 131	2
Foreign Language ²	101 or 103	3	Foreign Language ²	102 or 104	3
Hist. of W. Civilization	Hist 101	3	Hist. of W. Civilization	Hist 102	3
Alternates:			Alternates:		
Introduction to Music	Mus 100	3	Introduction to Music	Mus 100	3
Physical Science	Phys 100		Physical Science ¹	Phys 100	
Phys. Ed.	P.E. 101	1	Phys. Ed.	P.E. 102	1
Pers. Hyg.	P.E. 105	1	Pers. Hyg.	P.E. 106	1
Orientation					
		17			16

SOPHOMORE YEAR

Third Semester			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.
World Literature	Eng 151	4	World Literature	Eng 152	4
Foreign Language ²	103 or 200	3	Foreign Language ²	104 or 200	3
Alternates:			Alternates:		
Fundamentals of Math.	Math 101	3	Algebra or Trig.	Math 107-109	3
History of Religions	Rel 101		Hist. of Religions	Rel 101	
Intro. to Philosophy ³	Phil 101		Intro. to Philosophy ³	Phil 101	
Alternates: ⁴			Alternates: ⁴		
Intro. to Economics	Ec 100	6	Intro. to Economics	Ec 100	6
Intro. to Education	Ed 101		Intro. to Education	Ed 101	
American Federal Govt.	P.S. 101	6	Intro. to Political Science	P.S. 100	6
General Psychology	Psy 100		General Psychology	Psy 100	
Intro. to Sociology	Soc 100		Elective		
Phys. Ed.	P.E. 103	1	Phys. Ed.	P.E. 104	1
		17			17

JUNIOR YEAR

Fifth Semester	Sixth Semester
Major and Electives—30 hours	

SENIOR YEAR

Seventh Semester	Eighth Semester
Major and Electives—30 hours	

¹ Students may substitute a laboratory course in science for Bio. 100 or Phys. 100.

² The level of the course will depend upon the achievement of the student.

³ Philosophy is required in either the third or fourth semester.

⁴ During the third and fourth semesters, nine hours must be chosen from the alternates, with only three hours being allowed for electives. In the event that the scheduling of any of the alternates interferes with the necessary sequence of a major, one or more of the alternates may be delayed, with the approval of the adviser, until the junior year.

BACHELOR OF ARTS

Major in Art

FRESHMAN YEAR

First Semester			Second Semester		
Title	Number	Cr.	Title	Number	Cr.
Basic Art.....	Art 101	3	Basic Art.....	Art 102	3
Composition.....	Eng 101	3	Biological Science.....	Bio 100	3
History of W. Civilization.....	Hist 101	3	Composition.....	Eng 102	3
Physical Science.....	Phy 100	3	History of W. Civilization.....	Hist 102	3
Foreign Language.....	101 or 103	3	Foreign Language.....	102 or 104	3
Phys. Ed.....	P.E. 101	1	Phys. Ed.....	P.E. 102	1
Pers. Hyg.....	P.E. 105	1	Pers. Hyg.....	P.E. 106	1
Orientation					
		17			17

SOPHOMORE YEAR

Third Semester			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.
Applied Art.....	Art 103	3	Applied Art.....	Art 104	3
Composition and Color.....	Art 114	2	Composition and Color.....	Art 115	2
Foreign Language ¹	103 or 200	3	Foreign Language ¹	104 or 200	3
Electives in Humanities.....		3	Electives in Humanities.....		3
Social Science or Psy.....		3	Social Science or Psy.....		3
Phys. Ed.....	P.E. 103	1	Phys. Ed.....	P.E. 104	1
		15			15

JUNIOR YEAR

Fifth Semester			Sixth Semester		
Title	Number	Cr.	Title	Number	Cr.
Illustration or.....	Art 201	3	Illustration or.....	Art 202	3
Advertising Design or.....	Art 211	3	Advertising Design or.....	Art 212	3
Fine Art.....	Art 215	3	Fine Art.....	Art 216	3
Fundamentals of Speech.....	Eng 131	2	World Literature.....	Eng 152	4
World Literature.....	Eng 151	4	Electives in Humanities.....		6
Electives in Humanities.....		6	Social Science or Psy.....		2
Social Science or Psy.....		2	Studio II.....		2
Studio I.....		17			15

SENIOR YEAR

Seventh Semester			Eighth Semester		
Title	Number	Cr.	Title	Number	Cr.
Illustration or.....	Art 203	3	Illustration or.....	Art 204	3
Adv. Advanced Design or.....	Art 213	3	Adv. Advanced Design or.....	Art 214	3
Fine Art.....	Art 217	3	Fine Art.....	Art 218	3
Electives.....		9	Electives.....		9
Studio III.....		3	Studio IV.....		3
		15			15

¹ The level of the course will depend upon the achievement of the student.

BACHELOR OF ARTS

Major in Biology

FRESHMAN YEAR

First Semester			Second Semester		
Title	Number	Cr.	Title	Number	Cr.
General Zoology.....	Bio 101	5	General Zoology.....	Bio 102	4
Gen. Inorganic Chem.....	Chem 101	4	Inorganic Chem. and		
Composition.....	Eng 101	3	Qualitative Anal.....	Chem 102	6
College Algebra.....	Math 107	3	Composition.....	Eng 102	3
Phys. Ed.....	P.E. 101	1	Trigonometry.....	Math 109	3
Pers. Hyg.....	P.E. 105	1	Phys. Ed.....	P.E. 102	1
Orientation			Pers. Hyg.....	P.E. 106	1
		17			18

SOPHOMORE YEAR

Third Semester			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.
Comparative Anatomy of			Embryology.....	Bio 202	4
the Vertebrates.....	Bio 201	4	Organic Chem.....	Chem 230	4
Inorganic Quantitative Anal.....	Chem 121	4	World Literature.....	Eng 152	4
World Literature.....	Eng 151	4	Hist. of W. Civilization.....	Hist 102	3
Hist. of W. Civilization.....	Hist 101	3	Phys. Ed.....	P.E. 104	1
Phys. Ed.....	P.E. 103	1			
		16			16

JUNIOR YEAR

Fifth Semester			Sixth Semester		
Title	Number	Cr.	Title	Number	Cr.
Histology.....	Bio 241	3	Histology.....	Bio 242	3
Organic Chem.....	Chem 231	5	Foreign Language ¹	102 or 104	3
Foreign Language ¹	101 or 103	3	Introductory Physics.....	Phys 112	4
Introductory Physics.....	Phys 111	4	Intro. to Political Science.....	P.S. 100	3
		15	Intro. to Sociology.....	Soc 100	3
					16

SENIOR YEAR

Seventh Semester			Eighth Semester		
Title	Number	Cr.	Title	Number	Cr.
Physiology.....	Bio 251	3	Physiology.....	Bio 252	3
Seminar.....	Bio 291	1	History of Biology.....	Bio 292	1
Introduction to Economics.....	Ec 100	3	Foreign Language ¹	104 or 200	3
Foreign Language ¹	103 or 200	3	Electives ²		9-10
Electives ²		6-7			
		16-17			16-17

¹ The level of the course will depend upon the achievement of the student.² One elective is to be selected from the humanities or social sciences. Botany or Bacteriology electives may be chosen in senior year.

Major in Mathematics

This deficiency can be made up by:

1. Taking Math. 105 in the summer session preceding the Freshman year, or
2. Starting the Freshman year with Math. 105, taking Analytic Geometry, Math. 122, in the second semester, and then completing the first course in Calculus, Math. 125, in the summer between the Freshman and Sophomore years.

Third Semester			SOPHOMORE YEAR	Fourth Semester		
Title	Number	Cr.		Title	Number	Cr.
Intro. to Economics.....Ec	100	3		World Literature.....Eng	152	4
Principles of Economics.....Ec	101			Foreign Language ¹104 or 200	3	3
World Literature.....Eng	151		4	Mathematics.....	4	4
Foreign Language ¹103 or 200		3		General Physics I.....Phys	150	4
Mathematics.....		4		Phys. Ed.....P.E.	104	1
General Psychology.....Psy	100	3				
Phys. Ed.....P.E.	103	1				
		18				18

<i>Seventh Semester</i>		SENIOR YEAR	<i>Eighth Semester</i>	
<i>Title</i>	<i>Number Cr.</i>		<i>Title</i>	<i>Number Cr.</i>
Mathematics Elective ²	3		Mathematics Elective ²	3
Intro. to Music.....Mus	100 3		Elective.....	12
Elective.....	9-12			
	<hr/> 15-18			<hr/> 15

¹ The level of the course will depend upon the achievement of the student.
² Math 100, 101, 102, 115, 118 will not count toward a major.

Major in Music

FRESHMAN YEAR

SOPHOMORE YEAR					
Third Semester			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.
Foreign Language.....		3	Foreign Language.....		3
Music Theory.....Mus	103	5	Music Theory.....Mus	104	5
Applied Music ¹		1	Applied Music ¹		1
Electives in Humanities,			Electives in Humanities,		
Soc. Science or Psych.....		6	Soc. Science or Psych.....		6
Phys. Ed.....P.E.	103	1	Phys. Ed.....P.E.	104	1
		<hr/> 16			<hr/> 16

JUNIOR YEAR

SENIOR YEAR					
<i>Seventh Semester</i>			<i>Eighth Semester</i>		
<i>Title</i>	<i>Number</i>	<i>Cr.</i>	<i>Title</i>	<i>Number</i>	<i>Cr.</i>
Applied Music ¹		2	Applied Music ¹		2
Instrumentation.....	Mus 215	2	Orchestration.....	Mus 216	2
Analysis.....	Mus 217	2	Counterpoint.....	Mus 218	2
Electives.....		9	Electives.....		9
		<hr/> 15			<hr/> 16

¹ Private instruction.

BACHELOR OF SCIENCE IN CHEMISTRY

The chemistry curriculum is planned to provide thorough training in the fundamentals of the science and to contribute to the broad general education of the student. Graduates in chemistry may enter industry immediately upon graduation or may continue their studies in graduate school.

To satisfy the requirements for this degree students must complete one hundred thirty-four credits. These credits include forty-five in chemistry, thirty-two in physics and mathematics, fifteen to twenty-one in the social sciences and psychology, twenty-one to thirty-three in the humanities, and the language requirement.

Students planning to major in Chemistry or Physics should take courses in high school that will prepare them to start their college program with the course in Analytic Geometry. Unfortunately, all students will not qualify for this course, and, in consequence, it will be necessary for them to start with a more elementary course in College Algebra and Trigonometry, Math. 105.

This deficiency can be made up by:

1. Taking Math. 105 in the summer session preceding the Freshman year, or
2. Starting the Freshman year with Math. 105, taking Analytic Geometry, Math. 122, in the second semester, and then completing the first course in Calculus, Math. 125, in the summer between the Freshman and Sophomore years.

First Semester			Second Semester		
Title	Number	Cr.	Title	Number	Cr.
General Inorganic Chem.....	Chem 101	4	Inor. Chem. & Qual. Anal.....	Chem 102	6
Composition.....	Eng 101	3	Composition.....	Eng 102	3
Mathematics.....		4-5	Mathematics.....		4
Intro. to Political Science.....	P.S. 100	3	General Physics I.....	Phys 150	4
Phys. Ed.....	P.E. 101	1	Phys. Ed.....	P.E. 102	1
Pers. Hyg.....	P.E. 105	1	Pers. Hyg.....	P.E. 106	1
Orientation					
		16-17			19
Third Semester			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.
Inor. Quantitative Analysis.....	Chem 121	4	Organic Chemistry.....	Chem 230	4
Hist. of W. Civilization.....	Hist 101	3	Hist. of W. Civilization.....	Hist 102	3
Mathematics.....		4	Mathematics.....		4
General Physics II.....	Phys 151	4	General Physics III.....	Phys 152	4
Phys. Ed.....	P.E. 103	1	Elective (optional).....		0-3
			Phys. Ed.....	P.E. 104	1
		16			16-19
Fifth Semester			Sixth Semester		
Title	Number	Cr.	Title	Number	Cr.
Organic Chemistry.....	Chem 231	5	Physical Chemistry.....	Chem 242	4
Physical Chemistry.....	Chem 241	4	Foreign Language ¹	102 or 104	3
Foreign Language ¹	101 or 103	3	Stoichiometry.....	Ch. Eng. 106	3
Elec. Measurements.....	Phys 251	3	Elective.....		8
Elective.....		3			
		18			18

Seventh Semester			Eighth Semester		
Title	Number	Cr.	Title	Number	Cr.
Qualitative Organ. Anal.....	Chem 233	3	Inorg. Quan. Analysis.....	Chem 122	5
History of Chemistry.....	Chem 261	1	West. World Literature.....	Eng. 152	4
West. World Literature.....	Eng. 151	4	Chemical Literature.....	Chem 262	1
Foreign Language ¹		3	Foreign Language ¹		3
Electives.....		7	Chemistry Elective.....		3
		18	Electives.....		2
					18

¹ The level of the course will depend upon the achievement of the student. See page 92. Electives are to be selected with the advice and consent of the faculty adviser as follows: *Humanities*: Nine to eighteen credits are to be chosen from the following: Eng. 131, 153, 154; Phil. 101, 102; Mus. 100; Rel. 101. *Social Sciences and Psychology*: Nine to fifteen credits are to be chosen from the following: Soc. 100, 107, 205; P. S. 100, 203; Ec. 101, 102; His. 107, 108; Ed. 101, 201, 207; Psy. 100.

BACHELOR OF SCIENCE IN PHYSICS

Wilkes College offers the first two years of work leading toward a major in physics or in engineering physics. The need for men with this type of education is emphasized by the many new problems which have arisen with the application of nuclear energy. The curriculum offers a firm grounding in the fundamentals, without which further study cannot be continued profitably. The course in physics prepares the student for industry, teaching, or research.

First Semester			Second Semester		
Title	Number	Cr.	Title	Number	Cr.
General Inorganic Chem.....	Chem 101	4	General Inorganic Chem.....	Chem 102	6
Engineering Problems.....	Engi 100	2	Elementary German ¹	Ger 102	3
Composition.....	Eng 101	3	Mathematics ²		4
Elementary German ¹	Ger 101	3	General Physics I.....	Phys 150	4
Mathematics ²		4-5	Phys. Ed.....	P.E. 102	1
Phys. Ed.....	P.E. 101	1	Pers. Hyg.....	P.E. 106	1
Pers. Hyg.....	P.E. 105	1			
Orientation					
		19			19
Third Semester			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.
Engineering Drawing.....	Engi 105	3	Engineering Drawing.....	Engi 106	2
Composition.....	Eng 102	3	Amer. History since 1865.....	Hist 108	3
Fundamentals of Speech.....	Eng 134	3	Mathematics ²		4
Mathematics ²		4	Mechanics I, Statics.....	M.E. 211	3-6
General Physics II.....	Phys 151	4	Mechanics II, Dynamics.....	M.E. 212	3-6
Phys. Ed.....	P.E. 101	1	General Physics III.....	Phys 152	4
		18	Phys. Ed.....	P.E. 104	1
					17-20

¹ Intermediate or scientific German may be substituted when the student is qualified.
² See paragraph on Mathematics under Bachelor of Science in Chemistry.

BACHELOR OF SCIENCE IN COMMERCE AND FINANCE

The commerce and finance curricula provide training for economic and business activities supplemented by a study of the humanities, sciences, and social sciences. Its objectives are to prepare the student for effective personal, social, and economic life in a competitive society, to aid in the development of an appreciation for cultural pursuits, to broaden the viewpoint, to develop sound thinking and intellectual interests, and to provide technical instruction in preparation for business and professional careers and graduate study.

To insure a well-balanced program faculty advisers assist each student in the choice of his elective studies.

The commerce and finance curricula include four groups of study to meet the individual needs and purposes of the students. These groups are: Group I, Accounting; Group II, Business Administration; Group III, Retailing; Group IV, Secretarial Studies.

GROUP REQUIREMENTS

	Group I	Group II	Group III	Group IV
	<i>Accounting</i>	<i>Business Administration</i>	<i>Retailing</i>	<i>Secretarial Studies</i>
<i>Subjects</i>	<i>Cr.</i>	<i>Cr.</i>	<i>Cr.</i>	<i>Cr.</i>
Major	30	24-39	24	23
Commerce and Finance ¹	21	6	30-33	15
Electives	9	15	12	38-39
Humanities	28	28	28	28
Science	6	6	6	6
Social Sciences	33	33-48	24-27	15
Physical Education ..	6	6	6	6
Total	133	133	133	131-132

¹ Does not include major courses.

BACHELOR OF SCIENCE IN COMMERCE AND FINANCE

Major in Accounting¹FRESHMAN YEAR²

First Semester			Second Semester		
Title	Number	Cr.	Title	Number	Cr.
Elementary Accounting.....	Acct 101	3	Principles of Accounting.....	Acct 102	3
Survey of Business.....	B.A. 100	3	Composition.....	Eng 102	3
Biological Science.....	Bio 100	3	Hist. of W. Civilization.....	Hist 102	3
Composition.....	Eng 101	3	Intro. to Political Science.....	P.S. 100	3
Hist. of W. Civilization.....	Hist 101	3	Physical Science.....	Phys 100	3
Phys. Ed.....	P.E. 101	1	Phys. Ed.....	P.E. 102	1
Pers. Hyg.....	P.E. 105	1	Pers. Hyg.....	P.E. 106	1
Orientation					
	17			17	

SOPHOMORE YEAR

Third Semester			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.
Intermediate Accounting.....	Acct 111	3	Advanced Accounting.....	Acct 112	3
Business Law.....	B.A. 231	3	Business Law.....	B.A. 232	3
Principles of Economics.....	Ec 101	3	Principles of Economics.....	Ec 102	3
World Literature.....	Eng 151	4	World Literature.....	Eng 152	4
Fundamentals of Math.....	Math 101	3	Fundamentals of Math.....	Math 102	3
Fundamentals of Speech.....	Eng 131	2	Mathematics of Finance.....	Math 115	3
Phys. Ed.....	P.E. 103	1	Phys. Ed.....	P.E. 104	1
	19			17	

JUNIOR YEAR

Fifth Semester			Sixth Semester		
Title	Number	Cr.	Title	Number	Cr.
Cost Accounting.....	Acct 201	3	Advanced Cost Accounting.....	Acct 202	3
Business Law.....	B.A. 233	3	Accounting Systems.....	Acct 220	3
Money and Banking.....	Ec 201	3	C.P.A. Problems.....	Acct 242	3
Applied General Statistics.....	Ec 231	3	Business Law.....	B.A. 234	3
Intro. to Sociology.....	Soc 100	3	Intro. to Philosophy.....	Phil 101	3
Free Elective ³		3	History of Religions.....	Rel 101	3
			Economic Statistics.....	Ec 232	3
			Free Elective.....		3
	18			18	

SENIOR YEAR

Seventh Semester			Eighth Semester		
Title	Number	Cr.	Title	Number	Cr.
Tax Accounting.....	Acct 221	3	Auditing Practice.....	Acct 232	3
Auditing Principles.....	Acct 231	3	Theory of Money.....	Ec 202	3
Bus. Cor. and Reports.....	B.A. 209	3	Public Finance.....	Ec 236	3
Corporation Finance.....	B.A. 225	3	Economic Geography.....	Ec 226	3
Intro. to Music.....	Mus 100	3			
Free Elective ³		3			
	18			9	

¹ Practical experience in accounting is required for all students during the summer following the junior year or during the senior year.

² It is suggested that all students take Typewriting (S.S. 107) during one semester of the freshman year.

³ Students intending to sit for the New York State C. P. A. examinations should elect humanity subjects.

BACHELOR OF SCIENCE IN COMMERCE AND FINANCE

Major in Business Administration

FRESHMAN YEAR¹

First Semester			Second Semester		
Title	Number	Cr.	Title	Number	Cr.
Elementary Accounting.....Acct	101	3	Principles of Accounting.....Acct	102	3
Survey of Business.....B.A.	100	3	Composition.....Eng	102	3
Biological Science.....Bio	100	3	Hist. of W. Civilization.....Hist	102	3
Composition.....Eng	101	3	Intro. to Political Science.....P.S.	100	3
Hist. of W. Civilization.....Hist	101	3	Physical Science.....Phys	100	3
Phys. Ed.....P.E.	101	1	Phys. Ed.....P.E.	102	1
Pers. Hyg.....P.E.	105	1	Pers. Hyg.....P.E.	106	1
Orientation					
		17			17

SOPHOMORE YEAR

Third Semester			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.
Business Law.....B.A.	231	3	Business Law.....B.A.	232	3
Principles of Economics.....Ec	101	3	Principles of Economics.....Ec	102	3
Fundamentals of Speech.....Eng	131	2	World Literature.....Eng	152	4
World Literature.....Eng	151	4	Alternates:		
Fundamentals of Math.....Math	101	3	Fundamentals of Math.....Math	102	3
Phys. Ed.....P.E.	103	1	Mathematics of Finance.....Math	115	3
		16	Intro. to Music.....Mus	100	3
			Phys. Ed.....P.E.	104	1
					17

JUNIOR YEAR

Fifth Semester			Sixth Semester		
Title	Number	Cr.	Title	Number	Cr.
Money and Banking.....Ec	201	3	Alternates:		
Applied General Statistics.....Ec	231	3	Theory of Money.....Ec	202	3
Intro. to Sociology.....Soc	100	3	Economic Geography.....Ec	226	3
Elective in Social Science.....		3	C. & F. Elective.....		
Free Electives.....		6	Economic Statistics.....Ec	232	3
		18	Alternates:		
			Intro. to Philosophy.....Phil	101	3
			History of Religions.....Rel	101	3
			Marketing.....B.A.	222	3
			Free Elective.....		3
					15

SENIOR YEAR

Seventh Semester			Eighth Semester		
Title	Number	Cr.	Title	Number	Cr.
Bus. Cor. and Reports.....B.A.	209	3	Bus. Adm. and Ec. Electives ¹ ..		12
Bus. Adm. and Ec. Electives ¹ ..		12	Free Elective.....		3
Free Elective.....		3			
		18			15

¹ See footnote next page.

Students who major in business administration will select their electives from the following:

BANKING AND FINANCE¹

Title	Number	Title	Number
Credits and Collections.....B.A.	218	Theory of Money.....Ec	202
Real Estate.....B.A.	220	Public Finance.....Ec	236
Corporation Finance.....B.A.	225	Mathematics of Finance I.....Math	115
Investments.....B.A.	226		

ECONOMICS¹

Title	Number	Title	Number
Government and Business.....Ec	212	Public Finance.....Ec	236
Collective Bargaining.....Ec	223	Economic History.....Ec	238
International Trade.....Ec	225	Economic Analysis.....Ec	241
Economic Geography.....Ec	226	Consumer Economics.....Ec	245
Comparative Economic Systems.....Ec	229	Economic Investigation.....Ec	246
Business Cycles.....Ec	230		

MANAGEMENT AND INDUSTRIAL RELATIONS¹

Title	Number	Title	Number
Industrial Management.....B.A.	235	Life Insurance.....B.A.	241
Personnel Management.....B.A.	236	Labor Problems.....Ec	223
Production Management.....B.A.	237	Applied Psychology.....Psy	206
Office Management.....B.A.	238	Psychological Tests.....Psy	212
Sales Management.....B.A.	239		
Property Insurance.....B.A.	240		

MARKETING¹

Title	Number	Title	Number
Salesmanship.....B.A.	114	Sales Management.....B.A.	239
Advertising.....B.A.	216	Property Insurance.....B.A.	240
Transportation.....B.A.	217	International Trade.....Ec	225
Marketing.....B.A.	222	Consumer Economics.....Ec	245
		Principles of Retailing.....Ret	101

¹ At least six courses in this group are required of students concentrating in this field.

BACHELOR OF SCIENCE IN COMMERCE AND FINANCE

Major in Retailing

FRESHMAN YEAR¹

First Semester			Second Semester		
Title	Number	Cr.	Title	Number	Cr.
Elementary Accounting.....	Acct 101	3	Principles of Accounting.....	Acct 102	3
Biological Science.....	Bio 100	3	Composition.....	Eng 102	3
Survey of Business.....	B.A. 100	3	Hist. of W. Civilization.....	Hist 102	3
Composition.....	Eng 101	3	Physical Science.....	Phys 100	3
Hist. of W. Civilization.....	Hist 101	3	Intro. to Political Science.....	P.S. 100	3
Phys. Ed.....	P.E. 101	1	Phys. Ed.....	P.E. 102	1
Pers. Hyg.....	P.E. 105	1	Pers. Hyg.....	P.E. 106	1
Orientation					
		17			17

SOPHOMORE YEAR

Third Semester			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.
Business Law.....	B.A. 231	3	Business Law.....	B.A. 232	3
Principles of Economics.....	Ec 101	3	Principles of Economics.....	Ec 102	3
World Literature.....	Eng 151	4	World Literature.....	Eng 152	4
Fundamentals of Math.....	Math 101	3	Fundamentals of Math.....	Math 102	3
Elective in Retailing.....		3	Elective in Retailing.....		3
Phys. Ed.....	P.E. 103	1	Phys. Ed.....	P.E. 104	1
		17			17

JUNIOR YEAR

Fifth Semester			Sixth Semester		
Title	Number	Cr.	Title	Number	Cr.
Applied General Statistics.....	Ec 231	3	Intro. to Music.....	Mus 100	3
Fundamentals of Speech.....	Eng 131	2	Alternates:		
Electives in Social Science.....		3	Intro. to Philosophy.....	Phil 101	3
Electives in Retailing or			History of Religions.....	Rel 101	3
Com. & Fin.....		9	Electives in Retailing or		
			Com. & Fin.....		6
			Free Elective.....		3
			Marketing.....	B.A. 222	3
		17			18

SENIOR YEAR

Seventh Semester			Eighth Semester		
Title	Number	Cr.	Title	Number	Cr.
Bus. Cor. and Reports.....	B.A. 209	3	Electives in Retailing or		
Intro. to Sociology.....	Soc 100	3	Com. & Fin.....		6
Electives in Retailing or			Free Electives.....		9
Com. & Fin.....		6			
Elec. in Com. & Fin. or					
Soc. Sc.....		3			
		15			15

BACHELOR OF SCIENCE IN COMMERCE AND FINANCE

Major in Secretarial Studies

FRESHMAN YEAR

First Semester			Second Semester		
Title	Number	Cr.	Title	Number	Cr.
Survey of Business.....	B.A. 100	3	Biological Science.....	Bio 100	3
Composition.....	Eng 101	3	Composition.....	Eng 102	3
Hist. of W. Civilization.....	Hist 101	3	Hist. of W. Civilization.....	Hist 102	3
Fundamentals of Math.....	Math 101	3	Fundamentals of Math.....	Math 102	2
Phys. Education.....	P.E. 101	1	Phys. Education.....	P.E. 102	1
Pers. Hyg.....	P.E. 101	1	Pers. Hyg.....	P.E. 106	1
Elective.....		3-4	Elective.....		3
		17-18			17

SOPHOMORE YEAR

Third Semester			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.
Elementary Accounting.....	Acct 101	3	Principles of Accounting.....	Acct 102	3
Advances Exposition.....	Eng 105	3	American Federal Government.....	P.S. 101	3
Fundamentals of Speech.....	Eng 131	2	Physical Science.....	Phys 100	3
Intro. to Music.....	Mus 100	3	Shorthand and Typewriting.....	S.S. 102	4
Shorthand and Typewriting.....	S.S. 101	4	Free Elective.....		3
Phys. Ed.....	P.E. 103	1	Phys. Ed.....	P.E. 104	1
		16			17

JUNIOR YEAR

Fifth Semester			Sixth Semester		
Title	Number	Cr.	Title	Number	Cr.
Principle of Economics.....	Ec 101	3	Principles of Economics.....	Ec 102	3
World Literature.....	Eng 151	4	World Literature.....	Eng 152	4
Advanced Stenography.....	S.S. 109	4	Advanced Stenography.....	S.S. 110	4
Electives.....		6	Electives.....		6
		17			17

SENIOR YEAR

Seventh Semester			Eighth Semester		
Title	Number	Cr.	Title	Number	Cr.
Bus. Cor. and Reports.....	B.A. 209	3	Office Management.....	B.A. 238	3
Office Proc. & Machines.....	S.S. 205	4	Alternates:		
Electives.....		8-9	Medical Stenography.....	S.S. 200	3
			Speech Reporting.....	S.S. 203	3
			Free Electives.....		9
		15-16			15

The candidate for a degree with a major in medical stenography should consult with her adviser before planning a program of study. The following science courses are required: Chem. 101, Bio. 251-252, to provide the necessary background for work in a medical office.

BACHELOR OF SCIENCE IN BUSINESS EDUCATION

The degree of Bachelor of Science in Business Education is designed to provide a background in general education while it prepares the student for teaching the business subjects in the public secondary schools or for a career in business. The program that is outlined will meet the requirements of the state of Pennsylvania for certification in bookkeeping, shorthand, typing, office practice, economics, commercial law, business English, commercial arithmetic, and in the social studies if both sociology and political science are elected. Students preferring to be certified in salesmanship or retail selling may modify the course through consultation with their advisers.

FRESHMAN YEAR

First Semester			Second Semester		
Title	Number	Cr.	Title	Number	Cr.
Survey of Business.....B.A.	100	3	Composition.....Eng	102	3
Business Mathematics.....B.A.	107	3	Hist. of W. Civilization.....Hist	102	3
Biological Science.....Bio	100	3	Intro. to Music.....Mus.	100	3
Composition.....Eng	101	3	Physical Science.....Phys	100	3
Hist. of W. Civilization.....Hist	101	3	Intro. to Sociology.....Soc	100	3
Phys. Ed.....P.E.	101	1	or		
Pers. Hyg.....P.E.	105	1	Intro. to Political Science.....P.S.	100	1
Orientation			Phys. Ed.....P.E.	102	1
			Pers. Hyg.....P.E.	106	1
		17			17

SOPHOMORE YEAR

Third Semester			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.
Elementary Accounting.....Acct	101	3	Principles of Accounting.....Acct	102	3
or Elective			or Elective		
Principles of Economics.....Econ	101	3	Principles of Economics.....Econ	102	3
Intro. to Education.....Ed	101	3	U. S. Hist. since 1865.....Hist	108	3
U. S. - Pa. History to 1865.....Hist	107	3	General Psychology.....Psy	100	3
Shorthand and Typewriting.....S.S.	101	4	Shorthand and Typewriting.....S.S.	102	4
or Elective			or Elective		
Phys. Ed.....P.E.	103	1	Phys. Ed.....P.E.	104	1
		17			17

JUNIOR YEAR

Fifth Semester			Sixth Semester		
Title	Number	Cr.	Title	Number	Cr.
Intermediate Accounting.....Acct	111	3	Advanced Accounting.....Acct	112	3
or Elective			or Elective		
Business Law.....B.A.	231	3	Business Law.....B.A.	232	3
Educational Psychology.....Ed	201	3	Office Management.....B.A.	238	3
English Elective.....Eng 151 or 153	4-3		English Elective.....Eng 152 or 154	4-3	
Intermediate Stenography.....S.S.	109	4	Advanced Stenography.....S.S.	110	4
or Elective			or Elective		
		17-16			17-16

SENIOR YEAR

Seventh Semester			Eighth Semester		
Title	Number	Cr.	Title	Number	Cr.
Bus. Corres. and Reports.....B.A.	209	3	Visual Education.....Ed	212	1
Bus. Education and Methods of Instruction in S.S.....S.S.	243	3	Sec. School Curriculum.....Ed	205	3
Intro. to Philosophy.....Phil	101	3	Student Teaching.....Ed	207	8
Office Procedures and Machines.....S.S.	205	4	Elective.....		3
or Elective					
Elective.....		3			
		16			15

Provisional College Certificates will be issued by the Commonwealth of Pennsylvania to graduates of the course in business education. Certification will be offered in business subjects only as the following requirements are met:

Bookkeeping	12 semester hours
Commercial Law	6 semester hours
Commercial Arithmetic	3 semester hours
Office Practice	3 semester hours
Shorthand	9 semester hours
Typewriting	6 semester hours
Economics	6 semester hours
Business English	2 semester hours
plus twelve (12) semester hours in English	

Certificates are valid for teaching only those business subjects which are written on the certificate.

BACHELOR OF SCIENCE IN MUSIC EDUCATION

The Bachelor of Science degree with a major in music education is designed for students wishing to teach music in the public schools. Students following the four-year curriculum will have all of the requirements necessary to obtain a teacher certificate in music education in Pennsylvania and in many other states. The curriculum will also enable the student to become a proficient performer through the study of applied music subjects.

FRESHMAN YEAR

First Semester			Second Semester		
Title	Number	Cr.	Title	Number	Cr.
Composition.....	Eng 101	3	Composition.....	Eng 102	3
Fundamentals of Speech.....	Eng 131	2	Music Theory.....	Mus 102	3
Music Theory.....	Mus 101	5	Clarinet Class and Band.....	Mus	
Clarinet Class and Band.....	Mus		Methods or.....	Ed 102	2
Methods or.....	Ed 101	2	Brass Class and Band.....	Mus	
Brass Class and Band.....	Mus		Methods.....	Ed 104	
Methods.....	Ed 103			App	
Major Instrument.....	Mus	1	Major Instrument.....	Mus	1
Band, Orchestra, Chorus.....		1½	Band, Orchestra, Chorus.....		1½
Elective.....		3	Physical Science.....	Phys 100	3
Phys. Ed.....	P.E. 101	1	Elective.....		3
Pers. Hyg.....	P.E. 105	1	Phys. Ed.....	P.E. 102	1
Orientation.....			Pers. Hyg.....	P.E.	1
		18½			19½

SOPHOMORE YEAR

Third Semester			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.
World Literature.....	Eng 151	4	World Literature.....	Eng 152	4
Music Theory.....	Mus 103	5	Music Theory.....	Mus 104	5
Music History.....	Mus 109	3	Music History.....	Mus 110	3
	App			App	
Major Instrument.....	Mus	1	Major Instrument.....	Mus	1
Intro. to Education.....	Ed 101	3	Band, Orchestra, Chorus.....		1½
Band, Orchestra, Chorus.....		1½	General Psychology.....	Psy 100	3
Phys. Ed.....	P.E. 103	1	Phys. Ed.....	P.E. 104	1
		17½			17½

JUNIOR YEAR

Fifth Semester			Sixth Semester		
Title	Number	Cr.	Title	Number	Cr.
Educational Psychology.....	Ed 201	3	U.S. History since 1865.....	Hist 108	3
U.S. and Pa. Hist. to 1865.....	Hist 107	3		Mus	
	Mus		Brass Class Methods.....	Ed 106	2
Woodwind Class Methods.....	Ed 105	2		Mus	
Conducting (Instrumental).....	Ed 109	2	Conducting (Choral).....	Ed 110	2
	Mus			Mus	
Violin Class and Methods.....	Ed 111	2	Violin Class and Methods.....	Ed 112	2
	App			App	
Major Instrument.....	Mus	1	Major Instrument.....	Mus	1
Band, Orchestra, Chorus.....		1½	Band, Orchestra, Chorus.....		1½
Elective.....		3	Elective.....		6
		16½			16½

SENIOR YEAR

Seventh Semester			Eighth Semester		
Title	Number	Cr.	Title	Number	Cr.
Principles of Secondary.....	Ed 204		Visual Education.....	Ed 212	1
Education or.....			Orchestration.....	Mus 216	2
Principles of Elementary.....	Ed 237	3		Mus	
Education.....			Voice Class and Methods.....	Ed 108	2
Instrumentation.....	Mus 215	2	String Instrument Class.....	Mus	
	Mus		and Methods.....	Ed 114	2
Voice Class and Methods.....	Ed 107	2	Observation and Practice.....	Mus	
String Instrument Class and.....	Mus		Treaching.....	Ed 204	4
Methods.....	Ed 113	2		App	
Observation and Practice.....	Mus		Major Instrument.....	Mus	1
Teaching.....	Ed 203	4	Band, Orchestra, Chorus.....		1½
	App		Elective.....		3
Major Instrument.....	Mus	1			
Band, Orchestra, Chorus.....		1½			
		14½			15½

BACHELOR OF SCIENCE IN NURSING EDUCATION

The program in nursing education is designed for the preparation of instructors, head nurses, and supervisors in hospitals and schools of nursing. It presupposes graduation from an approved school of nursing and State registration.¹ Credits required for the degree are one hundred twenty-four, of which at least sixty-four must be college credits. The number of credits allowed for the school of nursing program ranges from forty to sixty and will be determined by an evaluation of the student's record and by results obtained on the Graduate Nurse Qualifying Examination.

JUNIOR YEAR

First Semester			Second Semester		
Title	Number	Cr.	Title	Number	Cr.
Composition.....	Eng 101	3	Biological Science.....	Bio 100	3
Hist. of West. Civ.....	Hist 101	3	Educational Psychology.....	Ed 201	3
Foundations of Nursing.....	N.E. 101	2	Composition.....	Eng 102	3
Physical Science.....	Phys 100	3	Hist. of West. Civ.....	Hist 102	3
General Psychology.....	Psy 100	3	Community Nursing.....	N.E. 104	2
Sociology.....	Soc 100	3	Supervision and Admin.....	N.E. 106	2
		17			16

SENIOR YEAR

Third Semester			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.
Educational Measurements.....	Ed 202	2	Guidance.....	Ed 214	2
Visual Education.....	Ed 212	1	Fundamentals of Speech.....	Eng 131	2
World Literature.....	Eng 151	4	Trends in Nursing Ed.....	N.E. 102	2
Prin. and Meth. in N.E.....	N.E. 107	2	Field Experience.....	N.E. 112	4
Electives ³		6-7	Electives ³		5-6
		15-16			15-16

¹ For exception see page 48.

² Hist. 107 and 108 may be substituted for Hist. 101 and 102.

³ Electives may be selected from academic subjects (Economics, English, Political Science, Psychology, Sociology) or Nursing Education courses with approval of the adviser.

BACHELOR OF SCIENCE IN ART EDUCATION

This program is designed to prepare students for certification as public school teachers in the field of art. It has been approved by the Commonwealth of Pennsylvania, but students wishing to teach art in other states should determine the requirements of the state in which they wish to teach so that specific requirements of that state may be satisfied through the choice of additional courses.

FRESHMAN YEAR

First Semester			Second Semester		
Title	Number	Cr.	Title	Number	Cr.
Basic Art.....	Art 101	3	Basic Art.....	Art 102	3
Composition.....	Eng 101	3	Composition.....	Eng 102	3
Hist. of West. Civ.....	Hist 101	3	Bio. Science.....	Bio 100	3
Fund. of Math.....	Math 101	3	Hist. of West. Civ.....	Hist 102	3
Phys. Science.....	Phys 100	3	Fund. of Math.....	Math 102	3
Phys. Ed.....	P.E. 101	1	Phys. Ed.....	P.E. 102	1
Pers. Hygiene.....	P.E. 105	1	Pers. Hygiene.....	P.E. 106	1
Orientation					
		17			17

SOPHOMORE YEAR

Third Semester			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.
Applied Art.....	Art 103	3	Applied Art.....	Art 104	3
Hist. of Art.....	Art 111	3	Hist. of Art.....	Art 112	3
Intro. to Ed.....	Ed 101	3	World Lit.....	Eng 152	4
World Lit.....	Eng 151	4	General Psych.....	Psych 100	3
Intro. to Political Science.....	P.S. 100	3	Intro. to Soc.....	Soc 100	3
Phys. Ed.....	P.E. 103	1	Phys. Ed.....	P.E. 104	1
		17			17

JUNIOR YEAR

Fifth Semester			Sixth Semester		
Title	Number	Cr.	Title	Number	Cr.
Fine Arts.....	Art 215	4	Fine Arts.....	Art 216	4
Graphic Art.....	Art 241	2	Graphic Art.....	Art 242	2
Intro. to Econ.....	Econ 100	3	U.S. Hist.....	Hist 108	3
Ed. Psych.....	Ed 201	3	Child Psych.....	Psy 207	3
U.S. and Pa. Hist.....	Hist 107	3	Elective*		3
		15			15

SENIOR YEAR

Seventh Semester			Eighth Semester		
Title	Number	Cr.	Title	Number	Cr.
Arts of Presentation.....	Art 243	3	Student Teaching.....	Ed 210	8
Prin. and Math. of			Visual Ed.....	Ed 212	1
Secondary Ed.....	Ed 204	3	Teaching of Art.....	Ed 221	3
Fund. of Speech.....	Eng 131	2	Elective*		3
Intro. to Philosophy.....	Phil 101	3			
Intro. to Music.....	Mus 100	3			
Elective*		3			
		17			15

*Nine hours of electives must be taken in three different fields.
Minimum Requirements in Semester Hours.

BACHELOR OF SCIENCE IN ENGINEERING

Wilkes College offers the first two years of the engineering curricula. Upon completion of the second year, students making acceptable records may transfer to the junior year of other engineering schools.

In the past, students have transferred to, and successfully completed their work at, such representative colleges as Alabama, Bucknell, Catholic University, Columbia, Cornell, Drexel, Georgia School of Technology, Lafayette, Lehigh, Massachusetts Institute of Technology, New York University, Pennsylvania State College, Purdue, Stevens Institute, Syracuse, and the University of Nebraska.

The engineer's main purpose is to apply scientific knowledge and discoveries to the uses of civilization. The engineer is obliged to specialize because of the vast range of modern engineering techniques. In selecting his particular field, the student should consider his natural interests. The demands of this profession are exacting, but it should appeal to those genuinely interested in mathematics and the natural sciences and in their application.

The following general distinctions may be made between the various fields: research appeals to the imaginative mind; the more practical person may be interested in development and design; others find satisfaction in the tangible results of construction, operation, and production. Technically trained men are always needed to sell applications and equipment. As his experience broadens and his judgment matures, the engineer qualifies for the higher executive and administrative positions.

During the first year the curricula for all engineering courses are the same with the exception of chemical engineering, in which course students must take two additional hours of chemistry in the second semester. For this reason the student should decide by the middle of the first year between chemical engineering and one of the other branches of engineering. The curricula change further at the beginning of the second year. For this reason the student should decide by then whether he will pursue civil, industrial, electrical, or mechanical engineering.

Students planning to major in Engineering should take courses in high school that will prepare them to start their college program with the course in Analytic Geometry. Unfortunately, all students will not qualify for this course, and, in consequence, it will be necessary for them to start with a more elementary course in College Algebra and Trigonometry, Math. 105.

This deficiency can be made up by:

1. Taking Math. 105 in the summer session preceding the Freshman year, or
2. Starting the Freshman year with Math. 105, taking Analytic Geometry, Math. 122, in the second semester, and then completing the first course in Calculus, Math. 125, in the summer between the Freshman and Sophomore years.

FRESHMAN YEAR

(COMMON TO ALL ENGINEERING COURSES)

First Semester			Second Semester		
Title	Number	Cr.	Title	Number	Cr.
General Inorganic Chem.....	Chem 101	4	Alternates: ¹		
Engineering and Orientation Problems.....	Engi 100	2	Inor. Chem. & Qual. Anal....	Chem 102	4-6
Engineering Drawing and Des. Geometry.....	Engi 105	3	General Inorganic Chem....	Chem 104	4-6
Composition.....	Eng 101	3	Drawing & Des. Geometry....	Engi 106	2
Mathematics.....		4-5	Composition.....	Eng 102	3
Phys. Ed.....	P.E. 101	1	Mathematics.....		4
Pers. Hyg.....	P.E. 105	1	General Physics (Mech.).....	Phys 150	4
Orientation			Phys. Ed.....	P.E. 102	1
	18-19		Pers. Hyg.....	P.E. 106	1
				19-21	

AERONAUTICAL ENGINEERING

Mechanical engineering is basic to the study of aeronautical engineering. Therefore, the first two years in mechanical engineering prepare the student for the advanced work offered by several universities.

CHEMICAL ENGINEERING

Chemical engineering is concerned with the broad field of chemical industry in which materials undergo a physical or a chemical change. Such materials include paper, textiles, gasoline, other petroleum products, coke, gas, dyes, electrochemical products, paints, rubber, plastics, ceramics, drugs, heavy chemicals, solvents, and many others. The chemical engineer is one skilled in the design, construction, operation and management of industrial plants in which materials are produced by chemical change. The chemical engineer may be engaged in research or in the development of a process, for he is expert in the application of the fundamental unit-manufacturing processes which underlie all chemical engineering. The equipment of the chemical engineer includes a thorough knowledge of chemistry, physics and mathematics and a sound understanding of such fundamentals of chemical, mechanical, and electrical engineering as will make him a competent development, control or sales engineer.

SOPHOMORE YEAR²

Third Semester			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.
Inor. Quant. Analysis.....	Chem 121	4	Stoichiometry.....	Ch E 106	3
Intro. to Economics.....	Ec 100	3	Mathematics.....		4
Fundamentals of Speech.....	Eng 134	3	Mathematics.....		4
Mathematics.....		4	Mechanics I, Statics.....	M.E. 211	3
General Physics.....	Phys 151	4	Mechanics II, Dynamics.....	M.E. 212	3
Phys. Ed.....	P.E. 103	1	General Physics.....	Phys 152	4
			Phys. Ed.....	P.E. 104	1
	19			18	

¹ Chemical engineers will register for Chem. 102 (six hours). All other engineering students will register for Chem. 104 (four hours).

² For freshman year see above.

CIVIL ENGINEERING

The civil engineer deals with problems in structural, highway, railroad, hydraulic, and sanitary engineering, and also with surveying and geodesy. He specializes in the design, construction and maintenance of bridges, tunnels, dams, and the structural members of buildings. His services are indispensable in the design of river, canal, and harbor improvements; in the development and control of water resources; in the treatment and disposal of sewage and industrial waste; and in the location and construction of all transportation facilities.

SOPHOMORE YEAR¹

Third Semester			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.
Plane Surveying.....	C.E. 103	3	Route Surveying.....	C.E. 104	4
Intro. to Economics.....	Ec 100	3	Mathematics.....		4
Fundamentals of Speech.....	Eng 134	3	Mechanics I, Statics.....	M.E. 211	3
Mathematics.....		4	Mechanics II, Dynamics.....	M.E. 212	3
General Physics II.....	Phys 151	4	General Physics III.....	Phys 152	4
Phys. Ed.....	P.E. 103	1	Phys. Ed.....	P.E. 104	1
	18			19	

ELECTRICAL ENGINEERING

Today nearly every activity of civilized life depends upon electricity. The electrical engineer is trained to design, construct, and operate all electrical generating equipment. He must supervise and control the distribution of electricity for driving the machinery in mills, factories, and mines; for electric railways, chemical processing, heating, lighting, and for all electrical devices used in the home.

The communications field, including telegraph, telephone, radio, radar, teletype, transmission of print and pictures, offers numerous opportunities. Development of electronic tubes, transistors, circuits, and equipment for commercial processes offers opportunities in many fields of endeavor.

SOPHOMORE YEAR¹

Third Semester			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.
Plane Surveying.....	C.E. 103	3	Mathematics.....		4
Intro. to Economics.....	Ec 100	3	Kinematics.....	M.E. 206	3
Fundamentals of Speech.....	Eng 134	3	Mechanics I, Statics.....	M.E. 211	3
Mathematics.....		4	Mechanics II, Dynamics.....	M.E. 212	3
General Physics II.....	Phys 151	4	General Physics III.....	Phys 152	4
Phys. Ed.....	P.E. 103	1	Phys. Ed.....	P.E. 104	1
	18			18	

¹ For freshman year see page 76.

INDUSTRIAL ENGINEERING

The field of industrial or management engineering has to do with the methods of manufacture and production; the effects thereon of personnel; and design control to meet cost and production requirements. Preparation with a background in science, engineering, economics, business administration, management, and history is necessary. The successful industrial engineer must possess not only technical skill and ability but also economic and humanistic interests, as well as character and personality. He must work with others and enlist their co-operation in the pursuit of a common goal. The industrial engineer deals with people as well as with machines and materials. This curriculum offers the first two years of work for those primarily interested in the administration of technical enterprises.

SOPHOMORE YEAR¹

<i>Third Semester</i>			<i>Fourth Semester</i>		
<i>Title</i>	<i>Number</i>	<i>Cr.</i>	<i>Title</i>	<i>Number</i>	<i>Cr.</i>
Principles of Economics.....Ec	101	3	Principles of Economics.....Ec	102	3
Fundamentals of Speech.....Eng	134	3	Mathematics.....		4
Mathematics.....		4	Mechanics I, Statics.....M.E.	211	3
General Physics II.....Phys	151	4	Mechanics II, Dynamics.....M.E.	212	3
General Psychology.....Psy	100	3	General Physics III.....Phys	152	4
Phys. Ed.....P.E.	103	1	Phys. Ed.....P.E.	104	1
		18			18

MECHANICAL ENGINEERING

The mechanical engineer is concerned with the design, construction, installation, and operation of machinery necessary for the economical application of mechanical power to industry. He must utilize power from whatever source derived. The generation of power, whether by steam, hydro or internal-combustion engines is of primary concern to the mechanical engineer in the power field. His services are necessary wherever process equipment and machine tools are made or used.

The mechanical engineer must of necessity be broadly trained in the fundamental sciences and in economics and humanities. Ability and skill in the application of the basic sciences are not sufficient. He must have an understanding of the influence of his profession upon our way of life and how its development and expansion affect our future.

SOPHOMORE YEAR¹

<i>Third Semester</i>			<i>Fourth Semester</i>		
<i>Title</i>	<i>Number</i>	<i>Cr.</i>	<i>Title</i>	<i>Number</i>	<i>Cr.</i>
Plane Surveying.....C.E.	103	3	Mathematics.....		4
Intro. to Economics.....Ec	100	3	Kinematics.....M.E.	206	3
Fundamentals of Speech.....Eng	134	3	Mechanics I, Statics.....M.E.	211	3
Mathematics.....		4	Mechanics II, Dynamics.....M.E.	212	3
General Physics II.....Phys	151	4	General Physics III.....Phys	152	4
Phys. Ed.....P.E.	103	1	Phys. Ed.....P.E.	104	1
		18			18

¹ For freshman year see page 76.

Terminal Programs

MEDICAL TECHNOLOGY

The Registry of Medical Technologists of the American Society of Clinical Pathologists has established definite standards for qualification as a medical technologist. The minimum requirements to meet these standards are a two-year college program and twelve months of technical training in an approved school of medical technology.

The following curriculum meets the pre-technical training requirements demanded by the Registry. Since requirements for admission to approved schools of medical technology vary, the student is urged to make inquiries concerning technical training during the Freshman year.

FRESHMAN YEAR

<i>First Semester</i>			<i>Second Semester</i>		
<i>Title</i>	<i>Number</i>	<i>Cr.</i>	<i>Title</i>	<i>Number</i>	<i>Cr.</i>
General Zoology.....	Bio 101	5	General Zoology.....	Bio 102	4
General Inorganic Chem.....	Chem 101	4	Inorganic Chem. and		
Composition.....	Eng 101	3	Qualitative Anal.....	Chem 102	6
College Algebra.....	Math 107	3	Elective.....		3
Phys. Ed.....	P.E. 101	1	Composition.....	Eng 102	3
Pers. Hyg.....	P.E. 105	1	Phys. Ed.....	P.E. 102	1
Orientation			Pers. Hyg.....	P.E. 106	1
		17			18

SOPHOMORE YEAR

<i>Third Semester</i>			<i>Fourth Semester</i>		
<i>Title</i>	<i>Number</i>	<i>Cr.</i>	<i>Title</i>	<i>Number</i>	<i>Cr.</i>
Bacteriology.....	Bio 211	4	Bacteriology.....	Bio 212	4
Inorganic Quantitative			Organic Chem.....	Chem 230	4
Anal.....	Chem 121	4	Electives ¹		7-8
Electives ¹		7-8	Phys. Ed.....	P.E. 104	1
Phys. Ed.....	P.E. 103	1			
		16-17			16-17

¹ At least one elective each semester must be in the humanities or social sciences.

PRE-DENTAL

(Two years)

The following pre-dental curricula are recommended as fulfilling the requirements established by the majority of colleges of dentistry. The three-year curriculum is less condensed and permits a more complete preparation in chemistry and biology.

FRESHMAN YEAR

<i>First Semester</i>			<i>Second Semester</i>		
<i>Title</i>	<i>Number</i>	<i>Cr.</i>	<i>Title</i>	<i>Number</i>	<i>Cr.</i>
General Zoology.....	Bio 101	5	General Zoology.....	Bio 102	4
General Inorganic Chem.....	Chem 101	4	Inorganic Chem. and		
Composition.....	Eng 101	3	Qualitative Analysis.....	Chem 102	6
College Algebra.....	Math 107	3	Composition.....	Eng 102	3
Phys. Ed.....	P.E. 101	1	Trigonometry.....	Math 109	3
Pers. Hyg.....	P.E. 105	1	Phys. Ed.....	P.E. 102	1
Orientation			Pers. Hyg.....	P.E. 106	1
		16			17

SOPHOMORE YEAR

<i>Third Semester</i>			<i>Fourth Semester</i>		
<i>Title</i>	<i>Number</i>	<i>Cr.</i>	<i>Title</i>	<i>Number</i>	<i>Cr.</i>
Histology.....	Bio 241	3	Histology.....	Bio 242	3
Inorganic Quantitative Anal.....	Chem 121	4	Organic Chemistry.....	Chem 230	4
Introductory Physics.....	Phys 111	4	Introductory Physics.....	Phys 112	4
Alternates:			Alternates:		
World Literature.....	Eng 151	4	World Literature.....	Eng 152	4
Hist. of West. Civ.....	Hist 101	3	Hist. of West. Civ.....	Hist 102	3
Phys. Ed.....	P.E. 103	1	Phys. Ed.....	P.E. 104	1
		15-16			15-16

PRE-DENTAL

(Three years)

FRESHMAN YEAR

First Semester			Second Semester		
Title	Number	Cr.	Title	Number	Cr.
General Zoology	Bio 101	5	General Zoology	Bio 102	4
General Inorganic Chem.	Chem 101	4	Inorganic Chem. and Qualitative Analysis	Chem 102	6
Composition	Eng 101	3	Composition	Eng 102	3
College Algebra	Math 107	3	Trigonometry	Math 109	3
Phys. Ed.	P.E. 101	1	Phys. Ed.	P.E. 102	1
Pers. Hyg.	P.E. 105	1	Pers. Hyg.	P.E. 106	1
Orientation					
		17			18

SOPHOMORE YEAR

Third Semester			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.
Basic Art	Art 101	3	Basic Art	Art 102	3
Comp. Anatomy of the Vert.	Bio 201	4	Embryology	Bio 202	4
Inorg. Quantitative Anal.	Chem 121	4	Organic Chemistry	Chem 230	4
World Literature	Eng 151	4	World Literature	Eng 152	4
Phys. Ed.	P.E. 103	1	Phys. Ed.	P.E. 104	1
		16			16

JUNIOR YEAR

Fifth Semester			Sixth Semester		
Title	Number	Cr.	Title	Number	Cr.
Bacteriology	Bio 211	4	Bacteriology	Bio 212	4
Histology	Bio 241	3	Histology	Bio 242	3
Organic Chemistry	Chem 231	5	Chemistry Elective	Chem	3
Introductory Physics	Phys 111	4	Introductory Physics	Phys 112	4
		16			14

SECRETARIAL COURSE

The two-year intensive secretarial program has a threefold purpose: to provide a general education; to develop an understanding of business activities; and to give specialized training for secretarial work.

The required courses in this program may be counted toward the degree Bachelor of Science in Commerce and Finance or toward that of Bachelor of Science in Business Education when students desire to continue their education after completing their secretarial training.

FRESHMAN YEAR

First Semester			Second Semester		
Title	Number	Cr.	Title	Number	Cr.
Survey of Business	B.A. 100	3	Biological Science	Bio 100	3
Composition	Eng 101	3	Composition	Eng 102	3
Hist. of W. Civilization	Hist 101	3	Fundamentals of Speech	Eng 131	2
Shorthand and Typewriting	S.S. 101	4	Hist. of W. Civilization	Hist 102	3
Phys. Ed.	P.E. 101	1	Shorthand and Typewriting	S.S. 102	4
Pers. Hyg.	P.E. 105	1	Phys. Ed.	P.E. 102	1
		15	Pers. Hyg.	P.E. 106	1
					17

SOPHOMORE YEAR

Third Semester			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.
Business Mathematics	B.A. 107	3	Office Management	B.A. 238	3
Business Law	B.A. 231	3	Intro. to Economics	Econ 100	3
Intermediate Stenography	S.S. 109	4	Advanced Stenography	S.S. 110	4
Office Pro. and Machines	S.S. 205	4	Secretarial Accounting	S.S. 120	3
Elective		3	Elective		3
Phys. Ed.	P.E. 103	1	Phys. Ed.	P.E. 104	1
		18			17

Students who have had shorthand and typewriting in high school may substitute electives for one or more of the courses in the stenographic skills, provided they demonstrate adequate skill. Placement examinations will be given the first week of the term to determine their levels of attainment.



Description of Courses

ACCOUNTING

Professor Rosenberg, chairman; Assistant Professors Curtis, P. Werner; Instructors Baron, Kohn, Krohn, Slamon, Strassman.

ACCT. 101. ELEMENTARY ACCOUNTING—*Three credits* THE STAFF

Fundamental theory of debits and credits; problems of classification and interpretation of financial data; technique of recording; preparation of financial statements. Class, two hours a week; laboratory, four hours a week.

ACCT. 102. PRINCIPLES OF ACCOUNTING—*Three credits* THE STAFF

A continuation of Accounting 101. Principles of partnership and corporation accounting; introduction to departmental, manufacturing, and branch accounting; financial analyses of statements. Class, two hours a week; laboratory, four hours a week.

Prerequisite: Acct. 101.

ACCT. 111. INTERMEDIATE ACCOUNTING—*Three credits* THE STAFF

Intermediate problems involving interpretation and detailed analyses of balance-sheet accounts; analytical processes and miscellaneous statements. Class, two hours a week; laboratory, two hours a week.

Prerequisite: Acct. 102.

ACCT. 112. ADVANCED ACCOUNTING—*Three credits* THE STAFF

An advanced study of partnerships and corporations; consignments and branch accounting; consolidated statements; estate and municipal accounting. Class, two hours a week; laboratory, two hours a week.

Prerequisite: Acct. 111.

ACCT. 201. COST ACCOUNTING—*Three credits* THE STAFF

Accounting for material, labor, and overhead expenses; methods of apportionment of manufacturing costs; detailed study of job-cost and process-cost methods. Class, two hours a week; laboratory, two hours a week.

Prerequisite: Acct. 112 or approval of instructor.

ACCT. 202. ADVANCED COST ACCOUNTING—*Three credits* THE STAFF

Establishing the practical use of cost systems through analytical and comparative statements; detailed study of various cost systems; standard costs; interpretation of data. Class, two hours a week; laboratory, two hours a week.

Prerequisite: Acct. 201 or approval of instructor.

ACCT. 220. ACCOUNTING SYSTEMS—*Three credits* MR. SLAMON

A study of the accounting methods of banks, utilities, building and loan associations, and other specialized businesses, with special attention given to internal control, ease of recording, and forms.

Prerequisite: Acct. 112, 201.

ACCT. 221. TAXES I—*Three credits* MR. CURTIS

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; methods of effecting tax savings. Class, two hours a week; laboratory, two hours a week.

Prerequisite: Acct. 112, 202 or approval of instructor.

ACCT. 222. TAXES II—*Three credits* THE STAFF

Tax accounting for installment and deferred payment sales; Federal tax returns for partnerships; fiduciaries and corporations; miscellaneous Federal and Pennsylvania corporate taxes. Class two hours a week; laboratory, two hours a week.

Prerequisite: Acct. 221.

ACCT. 231. AUDITING PRINCIPLES—*Three credits* MR. SLAMON

Methods used in verifying, analyzing, and interpreting the records and balance sheet and income accounts; study of the procedures applicable under various circumstances. Class, two hours a week; laboratory, two hours a week.

Prerequisite: Acct. 202.

ACCT. 232. AUDITING PRACTICE—*Three credits* MR. SLAMON

Advanced application of auditing principles to actual practice; problems of classification and interpretation of accounts; study of methods of internal control; preparation of reports to clients. Class, two hours a week; laboratory, two hours a week.

Prerequisite: Acct. 231.

ACCT. 242. ADVANCED PROBLEMS—*Three credits* MR. CURTIS

Advanced corporation problems including consolidations, mergers, and holding companies. Class two hours a week. Laboratory, two hours a week.

Prerequisite: Acct. 112.

ART

Assistant Professor O'Toole, chairman; Instructor Zawisa.

The curriculum leading to the degree of Bachelor of Arts in Art is intended (1) for the student who seeks an intelligent understanding

of the visual arts as part of his general education; and (2) for the talented student who wishes to acquire the technical skills necessary for successful art expression.

The courses in the curriculum enable the student who is essentially an observer of art to experience as fully as possible the creative activity of the artist. They give the student with a special aptitude for art a thorough knowledge of the language of art, and an adequate training in the mechanics and techniques that he needs to achieve full creative expression.

The Art Education Curriculum is outlined on p. 74.

ART 101-102. BASIC ART—*Three credits each semester* MR. O'TOOLE

Fundamental training in the handling of tools, the acquisition of the skills and knowledge used in the presentation of the graphic image. Principles of drawing, design, composition, color; uses of line and tone, color line and color tone. Studies in line, texture, tone, and color; space division, form, light and shade, light-dark. Class, two hours; studio, two hours.

ART 103-104. APPLIED ART—*Three credits each semester* MR. O'TOOLE

Review of various applications of art. Realism, abstraction, fantasy; the study of art and art philosophies and their present use in fine art, advertising design and illustration; exercises will be given in the various black and white mediums: pen, pencil, charcoal, crayon, et cetera. Color mediums: pastel, water colors, colored inks, colored pencils, et cetera. Class, two hours; studio, two hours.

Prerequisite: Art 101 and 102 or equivalent.

ART 105-106. INTRODUCTION TO LETTERING
Three credits each semester

MR. ZAWISA

Analysis of basic letter forms. The origin and development of the alphabet. Study of the first three one-stroke alphabets and Gothic. The basic strokes, upper and lower cases. Grouping letters into words. Simple spacing and layout.

Second group of alphabets to include: thick and thin, the scripts, one-stroke Roman and italics. Combining all the one-stroke alphabets in varying weights and sizes.

ART 107-108. LETTERING AND LAYOUT—*Three credits each semester*
MR. ZAWISA

The designed or built-up letter. Basic strokes, upper and lower cases of Gothic, Roman, italic, and script letters. Combining designed lettering with one-stroke lettering in layout. The use of color in lettering and backgrounds.

Prerequisite: Art 105-106.

ART 109. TYPOGRAPHY—*Three credits*

MR. O'TOOLE

Complete study of type faces and their design and differences. Designing with type, type ornaments and rules. Relationships of form, structure, size, direction, texture, color and weight. The use of type in advertising, book-jackets, brochures.

Prerequisite: Art 105-106, 107-108, or equivalent, and permission of instructor.

ART 110. HAND LETTERING FOR REPRODUCTION—*Three credits*

MR. O'TOOLE

Brush lettering, pen lettering, combining hand lettering with type. The uses of photostats. Use of ruling pen, bow compass, and other mechanical aids. The hand-lettered book-jacket and posters. The paste-up and use of reproduction proofs for line cuts.

Prerequisite: Art 105-106, 107-108, or equivalent, and permission of instructor.

ART 111. HISTORY OF ART—*Three hours.*

MR. ZAWISA

History of art from the prehistoric period through the Gothic era.

ART 112. HISTORY OF ART—*Three hours.*

MR. ZAWISA

History of art from the Renaissance to the present day.

ART 201-202. ILLUSTRATION—*Three credits each semester*

MR. O'TOOLE

Every possible use of illustration will be explored in this course from spot drawings to the illustration of two pages as a unit. Line illustration, line mediums; half-tone illustrations, half-tone mediums; analysis of various types of magazine illustrations; design of two pages facing (double spread). Class, two hours; studio, two hours.

Prerequisite: permission of the instructor.

ART 203-204. ADVANCED ILLUSTRATION—*Three credits each semester*

MR. O'TOOLE

Editorial illustration, caricature, decorative drawing, humorous drawing, stylized drawing. The book and book jacket; poster design. Assignments will be given in each type of illustration and will be prepared from rough to finish by the student. Class, two hours; studio, two hours.

Prerequisite: permission of the instructor.

ART 211-212. ADVERTISING DESIGN—*Three credits each semester*

MR. O'TOOLE

The object of this course is to acquaint the student with the methods and processes of designing for reproduction. Various methods of repro-

duction; line processes, half-tone processes, color separation. Studies in mediums used for line reproduction; studies in mediums used for half-tone reproduction; mechanical aids; typography, a complete study of type, type styles and type combinations. Class, two hours; studio, two hours.

Prerequisite: permission of the instructor.

ART 213-214. ADVANCED ADVERTISING DESIGN—*Three credits each semester* MR. O'TOOLE

Advertising and editorial layout; modern layout; the use of photo-montage; photographs and textures in advertising; color in backgrounds, type and illustrations. The advanced student will be required to do work that will meet the professional standards required by advertising agencies. Class, two hours; studio, two hours.

Prerequisite: Art 101-102, 103-104, or equivalent.

ART 215-216. FINE ART—*Three or four credits each semester* MR. O'TOOLE

Intensified training in drawing, design and composition. Study of still life, study of the light-dark principle, light and shade; transparencies and opaques, balance, dominance, follow through, contrast, texture study, line, tone and color. Class, two hours; studio, two hours.

Prerequisite: Art 101-102, 103-104, or equivalent.

ART 217-218. ADVANCED FINE ART—*Three or four credits each semester*

The complete design, picture structure. The various kinds and uses of perspective. Further study of the painting, design and art movements of the past and present. Advanced studies in various painting mediums. The creation of space, study of two dimensional and three dimensional design. Study of tensions of lines, forms, lights and darks, colors and textures. Class, two hours; studio, two hours.

Prerequisite: Art 101-102, 103-104, or equivalent.

ART 219-220-221-222. STUDIO I, II, III, IV—*Two or three credits each semester* MR. O'TOOLE

Individual instruction in the field of art in which the student wishes to excel. Each student will be given problems according to his needs and abilities. With each problem the student will receive individual instruction and criticism.

ART 241-242. GRAPHIC ART—*Two credits each semester*

Preparation and methods of designing in print making, linoleum, wood cut, etching, engraving, serigraph.

ART 243. ARTS OF PRESENTATION—*Three credits*

The object of this course is to acquaint the student with the methods and processes of designing for reproduction. Various methods of reproduction; line processes, half-tone processes, color separation. Studies in mediums used for line reproduction; studies in mediums used for half-tone reproduction; mechanical aids; typography, lettering, layout, posters, bookjackets, the advertisement.

BIOLOGY

Professor Reif, chairman; Associate Professor Cohen; Assistant Professor Michelini; Instructors Leagus and Namisniak.

BIO. 100. BIOLOGICAL SCIENCE—*Three credits* MR. REIF

Biological Science is a survey course intended for students who take no other courses 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. 101-102. GENERAL ZOOLOGY—*Nine credits* MR. REIF

General Zoology surveys the entire animal kingdom, outlines the history of biology, the organization of living matter, the structure of representative animals, and the methods of their classification. It considers the basic principles of physiology, genetics, embryology, evolution, and ecology. Biology 101 has class four hours a week; laboratory, three hours a week. Biology 102 has class three hours a week; laboratory, three hours a week. Fee: \$15.00 each course.

BIO. 111-112. GENERAL BOTANY—*Three credits each semester* MRS. NAMISNIAK

General Botany presents a broad consideration of the plant world. It includes the study of the fundamental principles of biology, emphasizing the structure, physiology, genetics, and ecology of plants. Class, two hours a week; laboratory, three hours a week. Fee: \$15 each course.

BIO. 113. BOTANICAL TAXONOMY—*Four credits* MR. REIF

Botanical Taxonomy presents a survey of the great divisions of the plant kingdom with special reference to the seed plants. Class, two hours a week; field work, six hours a week. Fee: \$15.

BIO. 201. COMPARATIVE ANATOMY OF THE VERTEBRATES—*Four credits* MR. MICHELINI

Comparative Anatomy includes a study of the general morphological characteristics of selected vertebrates emphasizing the structural and

embryological relationships of vertebrates generally. The taxonomy of the Phylum Chordata is stressed. Class, two hours a week; laboratory, six hours a week. Fee: \$15. Prerequisite: Bio. 102.

BIO. 202. EMBRYOLOGY—*Four credits*

MR. MICHELINI

Embryology is the study of the early development of animals. Growth is traced from the egg to later stages in the frog, chick, and man. Laboratory work includes the technique of making slides. Class, two hours a week; laboratory, six hours a week. Fee: \$15. Prerequisite: Bio. 201, or permission of instructor.

BIO. 211-212. BACTERIOLOGY—*Four credits each semester*

MRS. NAMISNIAK

Bio. 211 covers generally the morphology and identification of bacteria. Laboratory work includes microscopy, techniques of making media, methods of sterilization, and the culturing of bacteria. Fee: \$15. Prerequisite: Bio. 102.

Bio. 212 emphasizes medical and industrial processes such as biological prophylaxis and allergy, diseases and disease transmission, viruses, rickettsias, and pathogenic protozoa. Class, two hours a week; laboratory, six hours a week. Fee: \$15. Prerequisite: Bio. 211.

BIO. 223. ENTOMOLOGY—*Four credits*

MR. REIF

Entomology is the study of insects through the collection and identification of specimens. Life histories of insects are studied as well as their economic relationships, and their significance in industry and medicine. Class, two hours a week; laboratory and field work, six hours a week. Fee: \$15. Prerequisite: Bio. 101, or permission of instructor.

BIO. 241-242. HISTOLOGY AND ORGANOLOGY—*Three credits each semester*

MR. MICHELINI

Histology is the study of normal tissues and the arrangement of tissues to form organs and organ systems. Credit is given only upon completion of both semesters work which must be taken in sequence. Class, two hours a week; laboratory, three hours a week. Prerequisite: through Bio. 202, or permission of instructor. Fee: \$15 each course.

BIO. 251-252. PHYSIOLOGY—*Three credits each semester*

MR. MICHELINI

Physiology is a study of the functioning of the various cells, tissues, and organs of the animal body. Laboratory work includes experiments involving living forms. Class, two hours a week; laboratory, three

hours a week. Fee: \$15 each course. Prerequisite: through Bio. 242, Chem. 230, and Phys. 112, or permission of instructor.

Prerequisite: for Bio. 252 is Bio. 251.

BIO. 291-292. SEMINAR IN BIOLOGY—*One credit each semester* STAFF

This seminar is designed as a correlating study of the field of biology for senior students. Each student prepares a paper on a biological topic for presentation to and discussion by the group. Class, one hour a week. Prerequisite: permission of instructor.

BUSINESS ADMINISTRATION

Professor Rosenberg, chairman; Assistant Professors Chiang, Elliot, Farrar, R. Werner; Instructors Bacon, Capin, Casper, Chmiola, Johns, Kohn, Krohn, Mackson, Roberts.

B.A. 100. SURVEY OF BUSINESS—*Three credits*

THE STAFF

This course is designed as an introduction to the field of business and must be taken by commerce and finance students during the first semester of the freshman year. Emphasis is placed upon examining the various vocational opportunities in modern business and upon studying the necessary educational and other requisites for such jobs. Attempts are made to plan in advance with each student a tentative course program. Each student is required to make an individual study of some vocational objective. This course can be taken for credit by Freshmen only.

B.A. 107. BUSINESS MATHEMATICS—*Three credits*

THE STAFF

Review of fundamental arithmetic processes; relation of fractions, decimals, and per cent; simple interest; mark-ups, profits and losses; inventory and turnover; depreciation and distribution of overhead; payroll problems including social security and other deductions; sales and property taxes; credit and credit instruments involving interest; bank discounts; compound interest and present value; insurance and annuities; stocks and bonds; graphs and their use in business.

B.A. 114. SALESMANSHIP¹—*Three credits*

STAFF

The art of selling; the motive behind all buying; creation of interest and desire; presentation of services; meeting objections; types of customers.

Prerequisite: approval of instructor.

¹ Credit will not be given if credit for Ret. 207 has been received.

B.A. 209. BUSINESS CORRESPONDENCE AND REPORTS—*Three credits*
THE STAFF
Fundamental principles of business writing with emphasis on letters and reports.
Prerequisite: Eng. 102.

B.A. 216. ADVERTISING—*Three credits* THE STAFF
A survey of the different departments of advertising work, including copy, art, display, engraving, trade-marks, and media; advertising as a social force.

B.A. 217. TRANSPORTATION—*Three credits* MR. ROSENBERG
Problems and policies of railroads, buses, trucks, inland waterways, and air and ocean transportation; economic importance of transportation; significance of transportation to society.
Prerequisite: Ec. 102

B.A. 218. CREDIT AND COLLECTIONS—*Three credits* THE STAFF
The fundamentals of credit; investigation, analysis of risks; collection plans and policies. Special attention given to the organization of credit and collection offices.
Prerequisite: Ec. 102, Acct. 102.

B.A. 220. REAL ESTATE—*Three credits* THE STAFF
The fundamentals of the real estate business, including consideration of titles, mortgages, leases, advertising, sale, purchase, development, and management of real property.
Prerequisite: Ec. 102.

B.A. 222. MARKETING—*Three credits* THE STAFF
Evolution of the marketing system and functions of marketing, trade structure and organization, and the nature of competition. Principles of distribution, assembling, grading, transportation, finance, and storage. Each student is required to make a special study of the marketing of a selected commodity.
Prerequisite: Ec. 102.

B.A. 225. CORPORATION FINANCE—*Three credits* MR. CHIANG
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.
Prerequisite: Ec. 102.

B.A. 226. INVESTMENTS—*Three credits* MR. CHIANG
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.
Prerequisite: B.A. 225.

B.A. 231. BUSINESS LAW—INTRODUCTION AND CONTRACTS
Three credits MR. CASPER, MR. MACKSON, MR. KROHN
The foundation for all subjects in the field of business law. The nature, classification and sources of law. An introduction to the structure and functioning of the Federal and State Courts as agencies for enforcement of legal rights. A brief resume of the law of Torts and Crimes with reference to business problems. Examination of the essential elements of a contract under both the common law and the Uniform Commercial Code, the nature of contract rights, discharge of contracts and remedies for their breach.
Prerequisite: Ec 102 or approval of instructor.

B.A. 232. BUSINESS LAW—AGENCY AND SALES—*Three credits*
MR. CASPER, MR. MACKSON, MR. KROHN
A general study of the law of agency; its nature and creation, the rights and liabilities of principals, agents and third persons, and the termination of the agency. A study of the law of sales of goods, the transfer of title and risk of loss, warranties in sales, the duties and liabilities of the parties, remedies for breach, security interests in goods. A comparison of the uniform sales act with the sales article of the Uniform Commercial Code.
Prerequisite: B.A. 231.

B.A. 233. BUSINESS LAW—PARTNERSHIPS AND CORPORATIONS
Three credits MR. KROHN
The principles of law governing partnerships and corporations, with emphasis on the historical development of business enterprises. The law with respect to the formation, operation, internal relationships and dissolution of partnerships and corporations with particular reference to their dependency upon the law of agency. Rights and duties of the partnership and corporate enterprise with respect to the government, the owners, and the public. Advantages and disadvantages of these forms of business activity.
Prerequisite: B.A. 231.

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

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. Business crimes (crimes affecting property). The protection of personal and business property, tangible and intangible.

Prerequisite: B.A. 231, 232, Acct. 102.

B.A. 235. INDUSTRIAL MANAGEMENT—*Three credits* MR. BACON

A study of the organization and management of industry, with emphasis on the principles developed; problems of the interrelationship of the functions operating in the fields of management, such as production control, personnel, financing, and the forecasting of business conditions, particularly as they relate to industry.

Prerequisite: B.A. 225.

B.A. 236. PERSONNEL MANAGEMENT—*Three credits* MR. BACON

Principles and modern practices of personnel management; instruments of control; the training and education of the worker; incentives used and special problems encountered.

Prerequisite: Ec. 223 or approval of instructor.

B.A. 237. PRODUCTION MANAGEMENT—*Three credits* MR. BACON

A study of the production problems that confront executives; developing operational plans; handling production problems; appraisal of relative risks.

Prerequisite: Ec. 223 or approval of instructor.

B.A. 238. OFFICE MANAGEMENT—*Three credits* MR. BACON

The organization and management of the office with emphasis on the administration and supervision of office routines; problems of office records and filing; selection of stationery and other office supplies; design and effective use of forms; job analysis, specification, evaluation, and classification; selection and use of machines and specialized equipment; office arrangement and working conditions; employment, training, and compensation of office workers; the measurement of work and setting of standards.

Prerequisite: approval of instructor.

B.A. 239. SALES MANAGEMENT—*Three credits* MR. BACON

The relation of the sales department to all other departments; types of sales organizations; selection, training, compensation, and manage-

ment of the sales force; sales research and market analysis; determination of price and brand policies; preparation of sales budgets; costs of distribution.

Prerequisite: B.A. 114 or equivalent.

B.A. 240. PROPERTY INSURANCE—*Three credits* MR. FARRAR

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

Prerequisite: Business Administration 232 or approval of instructor.

B.A. 241. LIFE INSURANCE—*Three credits* MR. FARRAR

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.

Prerequisite: approval of instructor.

B.A. 244. TIME AND MOTION STUDY—*Three credits* MR. JOHNS

The principles and techniques of time and motion study. Class, three hours a week; laboratory, two hours a week.

B.A. 245. TRAFFIC MANAGEMENT—*Three credits* THE STAFF

Economic and historical aspects of traffic management; evaluation of comparative aspects of competitive modes of transportation, development of managerial ability; use of rates and tariff.

Prerequisite: approval of instructor.

CHEMISTRY

Professor Bastress, chairman; Assistant Professors Bone, Salley; Instructor Leagus.

LANGUAGE REQUIREMENTS

A reading knowledge of scientific German or of French is required for this degree. The requirement may be satisfied as follows:

1. A student prepared in a language may take a reading-knowledge test.
2. A student who has taken two years or more of German in high school must complete scientific German; if he has taken two years or more of French, he must complete six hours of intermediate or advanced French.
3. Students beginning either language must complete twelve semester hours. Those beginning German must include German 105 in the twelve hours.

CHEM. 101. GENERAL INORGANIC CHEMISTRY—*Four credits*

THE STAFF

An introduction to the fundamental laws and theories of inorganic chemistry. The chemistry of selected non-metallic elements. Class, three hours a week; laboratory, three hours a week. Breakage deposit required. Fee: \$15.

CHEM. 102. INORGANIC CHEMISTRY AND QUALITATIVE ANALYSIS
Six credits

MISS BONE, MR. SALLEY

The reactions of the common metallic elements, the theory and practice of elementary qualitative analysis. Class, four hours a week; laboratory, six hours a week. Breakage deposit required. Fee: \$15.

Prerequisite: Chem. 101.

CHEM. 104. GENERAL INORGANIC CHEMISTRY—*Four credits*

MISS BONE, MR. BASTRESS

A continuation of Chemistry 101. The chemistry of the metals. Laboratory work includes some qualitative analysis. Will not be accepted as a prerequisite for further chemistry courses. Class, three hours a week; laboratory, three hours a week. Breakage deposit required. Fee: \$15.

Prerequisite: Chem. 101.

CHEM. 121. INORGANIC QUANTITATIVE ANALYSIS—*Four credits*

MR. SALLEY

Theory and practice of typical analyses. Class, two hours a week; laboratory, six hours a week. Breakage deposit required. Fee: \$15.

Prerequisite: Chem. 102.

CHEM. 122. INORGANIC QUANTITATIVE ANALYSIS—*Five credits*

MR. SALLEY

A continuation of Chemistry 121. Class, two hours a week; laboratory, nine hours a week. Breakage deposit required. Fee: \$15.

Prerequisite: Chem. 121.

CHEM. 230. ORGANIC CHEMISTRY—*Four credits*

MR. BASTRESS

An introduction to the chemistry of carbon compounds. The preparation and properties of aliphatic compounds. Class, three hours a week; laboratory, three hours a week. Breakage deposit required. Fee: \$15.

Prerequisite: Chem. 121.

CHEM. 231. ORGANIC CHEMISTRY—*Five credits*

MR. BASTRESS

A continuation of Chemistry 230, with special attention to cyclic compounds. Class, three hours a week; laboratory, six hours a week. Breakage deposit required. Fee: \$15.

Prerequisite: Chem. 230.

CHEM. 233. QUALITATIVE ORGANIC ANALYSIS—*Three credits*

MR. BASTRESS

A course designed to give practice in the systematic identification of pure organic compounds and mixtures. Class, one hour a week; laboratory, six hours a week. Breakage deposit required. Fee: \$15.

Prerequisite: Chem. 231.

CHEM. 234. TOPICS IN ORGANIC CHEMISTRY—*Three credits*

MR. BASTRESS

Special topics in organic chemistry, including theories of organic reactions. Class, three hours.

Prerequisite: Chem. 231.

CHEM. 241-242. PHYSICAL CHEMISTRY—*Four credits each semester*

MR. SALLEY

An introduction to the principles of physical chemistry and the elements of thermodynamics. Class, three hours a week; laboratory, three hours a week. Breakage deposit required. Fee: \$15 each course.

Prerequisite: Chem. 121, Math. 126, Phys. 152.

CHEM. 243. TOPICS IN PHYSICAL CHEMISTRY—*Three credits*

MR. SALLEY

A study of advanced thermodynamics, chemical equilibrium, kinetics, and colloid chemistry. Advanced material is presented concerning the three phases of matter. Class, three hours a week.

Prerequisite: Chem. 242.

CHEM. 244. TOPICS IN INORGANIC CHEMISTRY—*Three credits*

MR. SALLEY

A course designed to introduce the student to the modern theories of inorganic chemistry. Class, three hours.

Prerequisite: Chem. 121.

CHEM. 251-252. BIOLOGICAL CHEMISTRY—*Three credits each semester*

MR. BASTRESS

The application of chemical and physiochemical principles and methods to chemical constitution, reaction, and products of living matter. Class, two hours a week; laboratory, three hours a week. Breakage deposit required. Fee: \$15 each course.

Prerequisite: Chem. 121 and 230.

CHEM. 261. HISTORY OF CHEMISTRY—*One credit*

MR. BASTRESS

The development of the science in terms of the personalities responsible for the development.

Prerequisite: completion of twenty chemistry credits.

CHEM. 262. CHEMICAL LITERATURE—*One credit* MR. BASTRESS
An orientation course in foreign and domestic chemical literature.
Prerequisite: completion of twenty chemistry credits.

CHEM. 271-272. RESEARCH PROJECT—*One to three credits each semester* THE STAFF
Fee: \$5 per credit.

ECONOMICS

Professor Rosenberg, chairman; Assistant Professors Chiang, Elliot, Farrar, R. Werner; Instructors Bacon, Gothschalk, Hotson and Scarantino.

Students who major in economics in the Bachelor of Arts course are required to complete twenty-four hours of work in economics beyond Ec. 101 and 102. The twenty-four hours in economics which the major must carry include Ec. 201, 202, 231, 232, 241.

EC. 100. INTRODUCTION TO ECONOMICS—*Three credits* THE STAFF
An introductory course in principles of economics designed for students who plan to take *only one* semester of work in this field. Theoretical aspects of capital value, national income, money and banking, and international trade are included.

EC. 101. PRINCIPLES OF ECONOMICS—*Three credits* THE STAFF
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—*Three credits* THE STAFF
This course is a logical sequence to Economics 101. It is based upon a broad micro-economic foundation concentrated on such units as the firm, the industry, and the consumer.

Prerequisite: Ec. 101.

EC. 201. MONEY AND BANKING—*Three credits* MR. ROSENBERG, MR. ELLIOTT, MR. WERNER

A study of the organization of financial institutions, their operation and influence upon the economy. Consideration is given to commercial and savings banks, investment institutions, and the Federal Reserve System.

Prerequisite: Ec. 102.

EC. 202. THEORY OF MONEY—*Three credits*

MR. ROSENBERG, MR. ELLIOT, MR. WERNER

An analysis of the theory of money and credit in relation to contemporary economics; currency and credit problems; governmental regulations; control of foreign exchange, and central banking.

Prerequisite: Ec. 201.

EC. 204. CONSUMER CREDIT—*Two credits*

MR. ROSENBERG

This course includes consumer credit in its various aspects. It includes retail credit, sales finance, credit unions, and credit bureau activities.

Prerequisite: approval of instructor.

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

THE STAFF

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, trust, transportation, extractive industries, and public enterprise.

Prerequisite: P.S. 101, Ec. 102.

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

STAFF

A study of the evolving labor movement and its ideology. The course deals with the development of American labor ideology and psychology in comparison with other labor movements. This course views the present position of American labor in regard to political and social institutions and to the rest of the economy.

Prerequisite: Ec. 102.

EC. 223. COLLECTIVE BARGAINING—*Three credits*

MR. R. WERNER

An introduction to American labor problems; analyses of major issues in the field of labor. This course deals with employment, wages, hours, history, growth and present position of organized labor, union policies, governmental participation in labor relations, collective bargaining, investigation and arbitration in labor disputes, and social security.

Prerequisite: Ec. 102.

EC. 225. INTERNATIONAL TRADE—*Three credits*

THE STAFF

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.

Prerequisite: Ec. 102.

EC. 226. ECONOMIC GEOGRAPHY—*Three credits* MR. ELLIOT

A study of the relation of geography to the economic activity of man. This course describes and analyzes the world distribution of resources, industries, and population. It is designed as an introductory course in world resources and related fields.

Prerequisite: Ec. 102 or approval of instructor.

EC. 227. ECONOMIC GEOGRAPHY—NORTH AMERICA—*Three credits* MR. ELLIOT

A study of the economic regions of the North American continent, with special emphasis on the role of the United States in the western hemisphere.

Prerequisite: Ec. 102.

EC. 229. COMPARATIVE ECONOMIC SYSTEMS—*Three credits* THE STAFF

The institutions of planned economy of the U.S.S.R. and those of the contemporary experiment in evolutionary socialism in Great Britain are studied. Constant objective comparisons are made with institutions which are characteristic of a capitalistic economy.

Prerequisite: approval of instructor.

EC. 230. BUSINESS CYCLES—*Three credits* MR. CHIANG

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

Prerequisite: approval of instructor.

EC. 231. APPLIED GENERAL STATISTICS—*Three credits* MR. ROSENBERG

A course in statistical methods and their application to business. A collection and interpretation of statistical data, frequency distribution and measures of central tendency, fitting the normal curve, Chi-square test; test of significance for small samples, analysis of variance. 3 hours lecture; 2 hours laboratory.

Prerequisite: approval of instructor.

EC. 232. ECONOMIC STATISTICS—*Three credits* MR. ROSENBERG

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. Lecture, three hours; laboratory, two hours.

Prerequisite: Ec. 231.

EC. 236. PUBLIC FINANCE—*Three credits*

MR. ROSENBERG, MR. WERNER

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.

Prerequisite: Ec. 102, P.S. 101.

EC. 238. ECONOMIC HISTORY—*Three credits* MR. ELLIOT, MR. CHIANG

An advanced course which deals with the origin, growth, and significance of economic institutions, with special emphasis upon those of Europe and the United States.

Prerequisite: Ec. 102.

EC. 241. ECONOMIC ANALYSIS—*Three credits* MR. CHIANG

This course is designed to give coverage to the theory of value and distribution. The determinants of consumer demand and the principles governing costs and outputs of producers are analyzed with some stress on recent theoretical investigations. The method is abstract and deductive.

Prerequisite: Ec. 102.

EC. 245. CONSUMER ECONOMICS—*Three credits* MR. CHIANG

The place of the consumer in the economic system. Theories of consumption; problems of the individual consumer as affected by income, consumer habits, standard of living, planning and budgeting; a study of the trends of consumption, income disposition, marketing processes of consumption of goods. Each student is required to make a study of the consumption of a selected commodity.

Prerequisite: Ec. 102.

EC. 246. ECONOMICS INVESTIGATION—*Three credits* THE STAFF

Each student conducts an investigation in the field of his major interest and constructs a final report. Class instruction will consist of: (1) the principles of scholarly criticism, (2) compilation and use of bibliographies, and (3) details of good form as to content, table, body, footnotes, and bibliography.

Prerequisite: approval of instructor.

EDUCATION

Professor Hammer, chairman; Associate Professor Jessee, Assistant Professor Moran, Instructors Bhaerman, Chwalek, Craig, Zawisa.

ED. 100. AMERICAN PUBLIC EDUCATION—*One credit* THE STAFF

A short course designed to acquaint students with the essential facts

about American public education. School system organization; the development and significance of education in a democracy; current problems, possible solutions and promising practices are presented and analyzed for the non-professional.

ED. 101. INTRODUCTION TO EDUCATION—*Three credits* THE STAFF

A broad, general introduction to the field of education. A historical and philosophical background of American public education. Study of the educational structure; the teacher, his preparation and qualifications; the pupils, their individual differences and provisions therefor; the materials of instruction; the school plant; the financing of education; the profession of teaching; the participation of the public; contemporary issues and trends in public education.

Students taking Ed. 101 will not receive credit for Ed. 100.

ED. 201. EDUCATIONAL PSYCHOLOGY—*Three credits* MR. HAMMER

Practical application of basic psychological principles; study of human growth and development; the nature and measurement of intelligence; mental hygiene of pupil and teacher; the nature and general principles of learning; the measurement and facilitation of learning; guidance of the individual; effective methods of study; special aspects of learning; the psychology of teaching methods; and simple statistical concepts.

Prerequisite: Psy. 100 and Ed. 101.

ED. 202. EDUCATIONAL MEASUREMENTS FOR THE SECONDARY SCHOOL

ED. 203. EDUCATIONAL MEASUREMENTS FOR THE ELEMENTARY SCHOOL
Two credits MISS JESSEE

A consideration of the characteristics, uses, and interpretations of intelligence and subject-matter tests available for school use; study of methods of treating scores; principles and purposes of measurement; practice in the construction of objective tests; supervised administration, scoring, and interpretation of tests; some aspects of evaluation.

Prerequisite: Ed. 101, 201.

ED. 204. PRINCIPLES AND METHODS OF SECONDARY EDUCATION—
Three credits MR. HAMMER

The historical development of the secondary school; a philosophical background from which are drawn basic principles; other factors in the development of the secondary school; promising practices in the secondary school; methodology in different subjects; motivation; the secondary pupil; guidance and control; records and reports—a survey of secondary school teaching.

Prerequisite: Ed. 101, 201.

ED. 205. SECONDARY CURRICULUM—*Three credits* MR. HAMMER

Developments of recent years in the secondary school curriculum; consideration of college preparation, preparation for life, vocational needs, etc.; planning of classroom activities; extracurricular activities; treatment of individual differences; organization of curriculum units; study methods; tests and marking; a survey of secondary school curriculum and its continuing development.

Prerequisite: Ed. 101, 201.

ED. 207. STUDENT TEACHING IN THE SECONDARY SCHOOL

Eight credits

THE STAFF

Students are assigned to work with experienced classroom teachers. They observe several teachers. Gradually they assume classroom responsibility and teach under supervision. Conferences with cooperating teachers and college supervisors are arranged. Fee: \$20.

Prerequisite: Ed. 204. Fifteen hours of credit at Wilkes, permission of the instructor.

ED. 208. STUDENT TEACHING IN THE ELEMENTARY SCHOOL (OBSERVATION)—*Four credits* THE STAFF

Students are assigned to area schools where they observe various teachers and participate as aides in the classroom.

Prerequisite: Permission of the instructor.

ED. 209. STUDENT TEACHING IN THE ELEMENTARY SCHOOL
(TEACHING)—*Eight credits* THE STAFF

Students are assigned to work with experienced classroom teachers. They assume classroom responsibility and teach under supervision. Conferences with cooperating teachers and college supervisors are arranged. Fee: \$20.

Prerequisite: Fifteen hours of credit at Wilkes, permission of the instructor.

ED. 210. STUDENT TEACHING IN ART—*Eight credits* THE STAFF

Students are assigned to work with experienced classroom teachers and art specialists. They observe in both elementary and secondary school classrooms, and teach. Opportunities are provided for them to participate in school-wide activities. Conferences with cooperating teachers and college supervisors are arranged. Fee: \$20.

Prerequisite: Fifteen hours of credit at Wilkes, permission of the instructor.

ED. 211. EXTRACURRICULAR ACTIVITIES—*Three credits* MR. HAMMER

Consideration of the place of extracurricular activities in the education of the child; the organization of extracurricular activities; the tendency to bring them into the school curriculum; their place in the guidance program.

Prerequisite: Ed. 101, 201.

ED. 212. VISUAL EDUCATION—*One credit* THE STAFF

A study of the materials and techniques of visual education; principles and plans for the use of audio-visual or sensory aids; the incorporation of visual instruction in the work for the classroom.

Prerequisite: Ed. 101, 201.

ED. 214. GUIDANCE—*Two credits* MR. CHWALEK

A general survey of the principles and problems of guidance, and an introduction to activities and techniques used in a guidance program in the public school. Required for the Pennsylvania guidance teachers' and counselors' certificates.

Prerequisite: Ed. 101, 201.

ED. 215. INTRODUCTION TO OCCUPATIONS AND OCCUPATIONAL RESEARCH—*Two Credits* MR. CHWALEK

A study of individual and social factors affecting occupational choices; methods of making vocational choices; types of occupational preparation; means of entry into occupations; problems of adjustment to job, leisure time, and unemployment.

Prerequisite: Ed. 101, 201.

ED. 221. THE TEACHING OF ART—*Three credits* MR. ZAWISA

Study of contemporary practices in the teaching of art in elementary and secondary schools; study of the psychology of the creative process; adaption of various art media to the school curriculum; study of the organization of the art curricula.

ED. 231. THE TEACHING OF READING—*Two credits* MR. BHAERMAN

Analysis of the reading task; consideration of the relationship of maturation to reading; problems and methods in developing reading readiness; methods and techniques of teaching reading; the place of experiences; development of reading interests; types of reading; evaluation of reading growth; remedial procedures in reading.

Prerequisite: Ed. 101, 201.

ED. 232. THE TEACHING OF ARITHMETIC—*Two credits* MR. BHAERMAN

Study of the principles and practices of education in the field of elementary arithmetic; methods, aims, and objectives; methods and teaching

techniques for developing units of work; attention given to methods of instruction in concepts of quantitative relationships.

Prerequisite: Ed. 101, 201.

ED. 236. TEACHING THE ELEMENTARY SOCIAL STUDIES—*Two credits* MR. BHAERMAN

Study of social situations pertinent to elementary school children; relation of school and home activities to the community; the study of methods and techniques designed to stimulate interest and create understanding. Development of units in civics, history, and geography.

Prerequisite: Ed. 101, 201.

ED. 237. PRINCIPLES OF ELEMENTARY EDUCATION—*Two credits* MR. BHAERMAN

The historical development of the elementary school; a philosophical background from which are drawn basic principles of elementary education; other factors in the development of the elementary school; promising practices in the elementary school; methodology and guidance; characteristics of the elementary school child; discipline and control; mental and physical hygiene; records and reports; a survey of principles and techniques in the elementary school.

Prerequisite: Ed. 101, 201.

ED. 238. THE CURRICULUM OF THE ELEMENTARY SCHOOL—*Two credits* MR. BHAERMAN

The development of the elementary curriculum; its relation to the society that supports it; the emerging elementary curriculum; adjustment to individual needs; relation of objectives to children's needs; content and method; utilizing the arts, music, science, physical education, etc., in the elementary curriculum.

Prerequisite: Ed. 101, 201.

ED. 239. TEACHING OF ELEMENTARY SCHOOL SCIENCE—*Two credits* MR. BHAERMAN

Basic elements of the sciences suitable for elementary school use; materials for demonstration; methods of presentation; consideration of the integration of science in the elementary curriculum; aims and objectives of science teaching; development of a spirit of inquiry.

Prerequisite: Ed. 101, 201.

ED. 241. ART IN THE ELEMENTARY SCHOOL—*Two credits* MR. ZAWISA

Study of the principles and practices of education in the field of elementary art; methods, aims, objectives; methods and techniques for

developing units of work; basic principles; selection and manipulation of various media; the development of creative expression and appreciation.

Prerequisite: Ed. 101, 201.

Ed. 242. MUSIC IN THE ELEMENTARY SCHOOL—*Two credits*

MR. R. MORAN

Study of methods for developing appreciation for and enjoyment of music through performance and listening; developing the rhythm band; rote singing; program music for children; discovery of talent; writing and interpretation of scales; training in group leadership in singing.

Prerequisite: Ed. 101, 201.

Ed. 243. HEALTH AND PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL—*Two credits*

MR. BHAERMAN

This course considers the health of the elementary school child including wholesome health ideas, attitudes and habits. The prospective teacher learns the fundamentals of first aid, care of the sick and attention to child health problems.

Prerequisite: Ed. 101, 201.

Ed. 290. WORKSHOP IN ELEMENTARY EDUCATION—*One to three credits*

THE STAFF

Experienced teachers are afforded an opportunity to study together and to develop projects of particular interest to them. In addition to working individually, students meet to consider current problems in elementary education.

Prerequisite: Teaching experience, permission of the instructor.

Ed. 291. WORKSHOP IN THE IMPROVEMENT OF READING INSTRUCTION—*Two credits*

THE STAFF

Experienced elementary school teachers study the characteristics of an effective developmental reading program, evaluation and diagnosis, methods of individualization and remediation. Practical applications are made in local school classrooms.

Prerequisite: Teaching experience, permission of the instructor.

Ed. 292. WORKSHOP IN THE IMPROVEMENT OF MATHEMATICS INSTRUCTION—*Two credits*

THE STAFF

Experienced elementary school teachers study the characteristics of an effective developmental mathematics program, evaluation and diagnosis, methods of individualization and remediation. Practical applications are made in local school classrooms.

Prerequisite: Teaching experience, permission of the instructor.

ENGINEERING

Associate Professor Hall, chairman; Assistant Professors Heltzel and Thomas; Instructors May and J. Williams.

ENGL 100. ENGINEERING PROBLEMS—*Two credits*

THE STAFF

Lectures and discussions to acquaint the student with the aims, purposes and methods of the engineer. An introduction to the proper method of attack upon problems, proper presentation of solutions, both mathematical and graphical, vertical freehand lettering. Instruction in the use of the slide rule necessary to problem solution. Graphs. Lecture, one hour; practicum, three hours a week.

ENGL 101. BASIC DRAWING—*Two credits*

THE STAFF

A basic course covering the elements of projection drawing necessary for students of chemistry. It includes use of instruments, sketching, orthographic and isometric drawing and dimensioning. Practicum, six hours a week.

ENGL 105. ENGINEERING DRAWING AND DESCRIPTIVE GEOMETRY I.—*Three credits*

MR. HELTZEL, MR. THOMAS

This and the following course bear the same relation to the engineering profession as the subject of English bears to our daily life. Use and care of instruments. Technical sketching; orthographic and auxiliary projection drawing with dimensions and sections. Applications of the principles of descriptive geometry. Practicum, seven hours a week.

ENGL 106. ENGINEERING DRAWING AND DESCRIPTIVE GEOMETRY II.—*Two credits*

MR. HELTZEL

Continuation of the principles of descriptive geometry to the solution of engineering space problems. Application of standard drawing conventions to the execution of detail and assembly drawing; tracings and reproduction processes. Practicum, six hours a week.

Prerequisite: Engi. 105.

Chemical Engineering

CH. E. 106. STOICHIOMETRY—*Three credits*

MR. SALLEY

A problem course involving the application of basic chemical and physical concepts to the calculation of heat and material balances as they are encountered in the various chemical industrial processes. Fuels and their combustion products, gas producers, furnace and kiln products. Class, three hours a week.

Prerequisite: Chem. 121; Phys. 151.

Co-requisite: Phys. 152.

*Civil Engineering*C.E. 103. PLANE SURVEYING—*Three credits* MR. THOMAS

Lectures, recitations and problems on the theory and practice of plane and topographic surveying. Field exercises, including the adjustment and use of surveying equipment including transit, levels, compass and tape for surveys of area, topography, profile, grading, excavating and the location of details. Interpretation of and mapping from field notes with attendant computations and the balancing of surveys. Emphasis on the application of surveying to engineering work in general. Practicum, seven hours a week. Fee: \$15.

Prerequisite: Engi. 105, Math. 105 or 107 and 109.

C. E. 104. ROUTE SURVEYING—*Four credits* MR. THOMAS

A study of the engineering and economic problems affecting the location of routes of communication. Lectures, recitations, field work and problems on the theory and use of simple horizontal, compound, reverse, spiral and vertical alignment curves; grades, cross sections, mass diagrams and earth work computations, grade crossing, right-of-way, and drainage problems. Solar observation to determine true bearing and azimuth. Class, two hours a week; practicum, six hours a week. Fee: \$15.

Prerequisite: C.E. 103.

*Mechanical Engineering*M. E. 206. KINEMATICS—*Three credits* MR. THOMAS, MR. HELTZEL

Analytical and graphical studies of displacement, velocity and acceleration for rigid bodies in plane motion. Study of kinematic pairs and trains involving linkages, pulleys, gears and cams: instant centers, gear tooth outlines and their application, epicyclic gear trains. Class, two hours a week; practicum, three hours a week.

Prerequisite: Engi. 106, Math. 122, Phys. 150.

M.E. 211. MECHANICS I. STATICS—*Three credits* MR. HALL

Study of force systems in equilibrium: catenary; friction; first and second moments of areas, volumes, masses; centroids. Class, three hours a week.

Prerequisite: Phys. 150, Math. 125.

Co-requisite: Math. 126.

M.E. 212. MECHANICS II. DYNAMICS—*Three credits* MR. HALL

Laws of motion, rectilinear and curvilinear, for a particle and a rigid body. Work-energy; impulse-momentum. Class, three hours a week.

Prerequisite: M.E. 211.

ENGLISH

Professor Davies, chairman; Associate Professor Chapman and Kruger; Assistant Professors Groh and Tener; Instructors Fiester, Lord, Miller, Moran, Rizzo, Roberts, and Tyburski.

Students who major in English are required to complete the following program of English studies: Freshman and Sophomore Years: 101, 102, 131, 151, 152 (16 hours); Junior and Senior Years: 215 (3 hours); 201 or 205 (3 hours); *one* course from the group 105, 106, 121, 123, 124 (3 hours); *four* elective courses in literature (12 hours); *one* elective course in English that can be any course offered by the department (3 hours).

(If 201 is taken, 205 may be taken as one of the four elective courses in literature.)

Majors in English, especially students who wish to take graduate work in English, are strongly advised to take as many courses in foreign languages (preferably French and German) as possible beyond the minimum of twelve hours.

All entering freshmen are required to take a placement test in English. As a result of the test some students may be exempted from taking Eng. 101; such students must take Eng. 102 and 105. Students who show a deficiency may be required to take an extra hour of drill to supplement their work in Eng. 101. Any student in Eng. 101 or 102 may be required to take this extra work should his instructor think it necessary.

*Composition*ENG. 101. COMPOSITION—*Three credits* THE STAFF
Principles of exposition; collateral reading; writing of themes.ENG. 102. COMPOSITION—*Three credits* THE STAFF
Principles of exposition continued; collateral reading; writing of themes; research paper.
Prerequisite: Eng. 101.ENG. 105. ADVANCED EXPOSITION—*Three credits* THE STAFF
A study of the various expository types. Readings. Intensive practice in the writing of informative articles.
Prerequisite: Eng. 101 and 102. In exceptional cases this requirement may be waived.

ENG. 106. SHORT STORY—*Three credits* MR. KRUGER, MR. RIZZO

A writing course. Training in the selection and use of materials for the short story.

Prerequisite: Eng. 102.

*Journalism*ENG. 121. JOURNALISTIC WRITING—*Three credits* MR. MORAN

A beginner's course in gathering and writing news. Topics include: definition of news, writing leads and building the story, law of libel, news sources; a brief survey of the history of American journalism and the current status of freedom of the press. Editors of local and nearby papers address the class and answer questions.

Students make comparative study of and report on representative papers of U. S., both dailies and country weeklies. There is constant practice in writing, with weekly news assignments.

Prerequisite: Eng. 102.

ENG. 123. PUBLICITY WRITING—*Three credits* MR. MORAN

Fundamental techniques of publicity. Recent developments in fields of public opinion, propaganda, public relations, public opinion polls. Special attention is given to trade journals and house organs covering the industrial, merchandising, and professional fields. Weekly themes.

Prerequisite: Eng. 102.

ENG. 124. FEATURE WRITING—*Three credits* MR. MORAN

Feature writing for newspapers and magazines. Analysis of the feature field and the magazine market. Finding suitable subjects and their treatment: the interview, the how-to-do-it article, popular biographies and success stories, personal experiences, narratives. Weekly themes.

Prerequisite: Eng. 102.

*Language and Literature*ENG. 151. WESTERN WORLD LITERATURE—*Four credits*

MR. DAVIES, MR. CHAPMAN, MR. TENER

Survey of western world literature to the beginning of the eighteenth century; lectures, quizzes, conferences.

Prerequisite: Eng. 102, or substitute in composition.

ENG. 152. WESTERN WORLD LITERATURE—*Four credits*

MR. DAVIES, MR. CHAPMAN, MR. TENER

Continuation of survey, bringing the study of literature down to the present time.

Prerequisite: Eng. 151.

ENG. 153. AMERICAN LITERATURE—*Three credits* MR. KRUGER

Survey of American literature from the beginning to the Civil War.

Prerequisite: Eng. 102.

ENG. 154. AMERICAN LITERATURE—*Three credits* MR. KRUGER

Survey of American literature from the Civil War to the present time.

Prerequisite: Eng. 102.

ENG. 155 AND 156. CONTEMPORARY LITERATURE—*Three credits each semester* MR. KRUGER

A course designed to familiarize the student with the best books of the twentieth century.

Prerequisite: Eng. 102.

ENG. 201. HISTORY OF THE ENGLISH LANGUAGE—*Three credits*

MR. TENER

Study of the origins of the English language and of the principal phenomena of later development.

Prerequisite: Eng. 152.

ENG. 205. CHAUCER—*Three credits*

MR. TENER

Study of the linguistic features of late Middle English; reading of some of the Canterbury Tales; written reports on collateral reading.

Prerequisite: Eng. 152.

ENG. 211. EARLY ENGLISH DRAMA—*Three credits*

MR. DAVIES, MR. GROH

Study of the drama as a literary type and its history from the earliest times to 1642; reading of plays by pre-Elizabethan and Elizabethan dramatists exclusive of Shakespeare.

Prerequisite: Eng. 152.

ENG. 212. LATER ENGLISH DRAMA—*Three credits*

MR. DAVIES, MR. GROH

Study of the drama from 1660 to the present.

Prerequisite: Eng. 152.

ENG. 215. SHAKESPEARE—*Three credits*

MR. CHAPMAN

Intensive study of selected plays; written reports on others not studied in class.

Prerequisite: Eng. 152.

ENG. 216. SEVENTEENTH CENTURY—*Three credits* MR. CHAPMAN
A study of the non-dramatic literature of the period with special emphasis on the poetry of John Milton.
Prerequisite: Eng. 152.

ENG. 221. AGE OF POPE—*Three credits* MR. CHAPMAN
A study of the poetry and non-fictional prose of this period, including the work of leading essayists, biographers, diarists, and letter writers.
Prerequisite: Eng. 152.

ENG. 222. AGE OF JOHNSON—*Three credits* MR. CHAPMAN
A study of the poetry and non-fictional prose of 1740-1798, including the work of leading essayists, biographers, diarists, and letter writers.
Prerequisite: Eng. 152.

ENG. 237. EARLY ENGLISH NOVEL—*Three credits* MR. DAVIES
English prose fiction of the sixteenth and seventeenth centuries; rise of the novel to the close of the eighteenth century.
Prerequisite: Eng. 152.

ENG. 238. LATER ENGLISH NOVEL—*Three credits* MR. DAVIES
The major novelists of the nineteenth and early twentieth centuries.
Prerequisite: Eng. 152.

ENG. 241. THE ROMANTIC MOVEMENT—*Three credits* MR. MILLER
Study of the poetry of Wordsworth, Coleridge, Scott, and the prose writers contemporary with them.
Prerequisite: Eng. 152.

ENG. 242. THE ROMANTIC MOVEMENT—*Three credits* MR. MILLER
Study of the poetry of Byron, Shelley, Keats and the prose writers contemporary with them.
Prerequisite: Eng. 152.

ENG. 259. TENNYSON AND BROWNING—*Three credits* MR. DAVIES
Study of the poetry of Alfred Tennyson and Robert Browning.
Prerequisite: Eng. 152.

ENG. 260. VICTORIAN PROSE—*Three credits* MR. DAVIES
Study of the influence of movements in science, philosophy, art, religion, and society as reflected in the works of Carlyle, Arnold, Huxley, Newman, and Ruskin.
Prerequisite: Eng. 152.

ENG. 287. AMERICAN DRAMA—*Three credits* MR. GROH
The development of our native drama from the colonial period to the present. Representative plays for reading and study. Written reports.
Prerequisite: Eng. 152.

Speech

ENG. 131. FUNDAMENTALS OF SPEECH—*Two credits* THE STAFF
A basic course in the preparation and delivery of short speeches.

ENG. 134. FUNDAMENTALS OF SPEECH FOR TECHNICAL STUDENTS
Three credits MR. KRUGER, MR. GROH
Similar to Eng. 131, but with an extra hour of work directed to the specific needs of the student.

MODERN FOREIGN LANGUAGES

Associate Professor Disque, chairman; Associate Professor Dworski; Instructor Carlin.

French

A major in French consists of twenty-four hours beyond Fr. 102.

FR. 101. ELEMENTARY FRENCH—*Three credits* THE STAFF
Introduction to French grammar; practice in reading, writing, and speaking the language.

FR. 102. ELEMENTARY FRENCH—*Three credits* THE STAFF
Continuation of Fr. 101.
Prerequisite: Fr. 101 or the equivalent.

FR. 103. INTERMEDIATE FRENCH—*Three credits* THE STAFF
Review of grammar; practice in oral and written French; selected reading of modern French prose.
Prerequisite: Fr. 102 or the equivalent.

FR. 104. INTERMEDIATE FRENCH—*Three credits* THE STAFF
Introduction to French civilization; practice in oral and written French.
Prerequisite: Fr. 103 or the equivalent.

FR. 105. TECHNICAL FRENCH—*Three credits* MISS DWORSKI
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. 103 or the equivalent.

FR. 106. FRENCH CONVERSATION—*Three credits* MISS DWORSKI
Intensive practice in the spoken language, with emphasis on idiomatic usage. Use of records and the microphone to acquire fluency in speaking French.
Prerequisite: Fr. 104 or the equivalent.

FR. 107. FRENCH COMPOSITION—*Three credits* MISS DWORSKI
Study of grammar and idiomatic usage in modern French, applied to composition exercises and free composition.
Prerequisite: Fr. 104 or the equivalent.

FR. 201-202. SURVEY OF FRENCH LITERATURE—*Three credits each semester* MISS DWORSKI
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. 104 or the equivalent.

FR. 203. FRENCH LITERATURE OF THE SEVENTEENTH CENTURY
Three credits MISS DWORSKI
Study of classicism and the outstanding writers of the seventeenth century.
Prerequisite: Fr. 201-202 or the equivalent.

FR. 205. FRENCH LITERATURE OF THE EIGHTEENTH CENTURY
Three credits MISS DWORSKI
Study of the literature and thought in the eighteenth century, with special emphasis on Montesquieu, Diderot, Voltaire, and Rousseau.
Prerequisite: Fr. 201-202 or the equivalent.

FR. 206. FRENCH LITERATURE OF THE NINETEENTH CENTURY
Three credits MISS DWORSKI
Study of Romanticism, Realism, Naturalism, the Parnassian poets, and Symbolism.
Prerequisite: Fr. 201-202 or the equivalent.

FR. 208. CONTEMPORARY FRENCH DRAMA—*Three credits* MISS DWORSKI
The development of modern drama from the latter half of the nineteenth century to the present.
Prerequisite: Fr. 201-202 or the equivalent.

German

A major in German consists of twenty-four hours beyond Ger. 102.

GER. 101. ELEMENTARY GERMAN—*Three credits* THE STAFF
Introduction to German grammar; practice in reading, writing, and speaking the language.

GER. 102. ELEMENTARY GERMAN—*Three credits* THE STAFF
Continuation of German 101. Reading of easy prose and poetry. Some stress on German culture, life, and customs.
Prerequisite: Ger. 101 or equivalent.

GER. 103. INTERMEDIATE GERMAN—*Three credits* THE STAFF
Emphasis on difficult grammatical construction and idioms. Reading of prose; practice in speaking and writing German.
Prerequisite: Ger. 102 or equivalent.

GER. 104. INTERMEDIATE GERMAN—*Three credits* THE STAFF
Continuation of Ger. 103. Rapid reading of German works representative of German life and history; practice in writing and speaking German.
Prerequisite: Ger. 103 or equivalent.

GER. 105. SCIENTIFIC GERMAN—*Three credits* MR. DISQUE
Reading of selections from scientific German.
Prerequisite: Ger. 103 or equivalent.

GER. 106. GERMAN CONVERSATION—*Three credits* MR. DISQUE
Emphasis laid on speaking, with drill in the colloquial vocabulary.
Prerequisite: Ger. 104 or equivalent.

GER. 107. GERMAN COMPOSITION—*Three credits* MR. DISQUE
Idiomatic usage in modern German. To develop the ability to write free compositions.
Prerequisite: Ger. 104 or equivalent.

GER. 201-202. SURVEY OF GERMAN LITERATURE
Three credits each semester MR. DISQUE
 A survey of the literature of the important periods from the beginning to 1932.
 Prerequisite: Ger. 104 or equivalent.

GER. 203. GOETHE—*Three credits* MR. DISQUE
 Reading and interpretation of selected works of Goethe. Lectures and individual reports.
 Prerequisite: Ger. 201-202 or equivalent.

GER. 204. SCHILLER—*Three credits* MR. DISQUE
 Poet of German idealism.
 Prerequisite: Ger. 201-202 or equivalent.

GER. 205. NINETEENTH CENTURY GERMAN DRAMA—*Three credits* MR. DISQUE
 The German drama of the nineteenth century from Ludwig Tieck to Gerhart Hauptmann. Lectures and reports on the literary and cultural history of the times.
 Prerequisite: Ger. 201-202 or equivalent.

GER. 206. MODERN GERMAN SHORT STORY—*Three credits* MR. DISQUE
 The modern German short story from naturalism to the present. Individual reports; lectures on the cultural and literary history of the period.
 Prerequisite: Ger. 201-202 or equivalent.

Spanish

A major in Spanish consists of twenty-four hours beyond Sp. 102.

SP. 101. ELEMENTARY SPANISH—*Three credits* THE STAFF
 Introduction to Spanish grammar; practice in reading, writing, and speaking the language.

SP. 102. ELEMENTARY SPANISH—*Three credits* THE STAFF
 Continuation of Spanish 101.
 Prerequisite: Sp. 101 or equivalent.

SP. 103. INTERMEDIATE SPANISH—*Three credits* THE STAFF
 Review of grammar; practice in oral and written Spanish; selected readings from modern Spanish prose.
 Prerequisite: Sp. 102 or equivalent.

SP. 104. INTERMEDIATE SPANISH—*Three credits* THE STAFF
 Introduction to Spanish civilization; practice in oral and written Spanish.
 Prerequisite: Sp. 103 or equivalent.

SP. 105. COMMERCIAL SPANISH—*Three credits* MISS DWORSKI
 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. 103 or equivalent.

SP. 106. SPANISH CONVERSATION—*Three credits* MISS DWORSKI
 Intensive practice in the spoken language, with emphasis on idiomatic usage. Use of records to acquire fluency in speaking Spanish.
 Prerequisite: Sp. 104 or equivalent.

SP. 107. SPANISH COMPOSITION—*Three credits* MISS DWORSKI
 Study of grammar and idiomatic usage in modern Spanish, applied to composition exercises and free composition.
 Prerequisite: Sp. 104 or equivalent.

SP. 108. SPANISH AMERICAN CULTURE—*Three credits* MISS DWORSKI
 The cultural, economic, and political development of the Spanish American countries.
 Prerequisite: Sp. 103 or equivalent.

SP. 201-202. SURVEY OF SPANISH LITERATURE
Three credits each semester MISS DWORSKI
 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. 104 or equivalent.

SP. 203. THE GOLDEN AGE OF SPANISH LITERATURE—*Three credits* MISS DWORSKI
 Study of the great authors of the sixteenth and seventeenth centuries, with special emphasis on Cervantes, Lope de Vega, Tirso de Molina, Alarcón, and Calderón.
 Prerequisite: Sp. 201-202 or equivalent.

- SP. 204. NINETEENTH CENTURY SPANISH DRAMA—*Three credits*
MISS DWORSKI
Study of representative works of nineteenth century Spanish drama.
Prerequisite: Sp. 201-202 or equivalent.

- SP. 205. NINETEENTH CENTURY SPANISH NOVEL—*Three credits*
MISS DWORSKI
The development of the Spanish novel in the nineteenth century.
Prerequisite: Sp. 201-202 or equivalent.

GENERAL SCIENCE

BIO. 100. See page 91.

- GEOL. 100. GENERAL GEOLOGY—*Two credits* MR. REIF
General geology deals with the probable formation of the planet Earth, the establishment of its crust, and subsequent movements of the crust. The chief approach of the course is through a consideration of the paleontological, physical, and economic evidence in Earth's rocks.

PHYS. 100. See page 135.

HISTORY

Professor Thatcher, chairman; Associate Professor Mui; Assistant Professor Kaslas; Instructors Connolly and Ritchie; Visiting Lecturer Williams.

A major in history consists of twenty-four hours, of which twelve are in courses numbered 200 or above. Majors in history are required to take Hist. 101, 102, 107, and 108; Hist. 101 and 102, however, may not count toward the twenty-four hours constituting a major.

- HIST. 101-102. HISTORY OF WESTERN CIVILIZATION THE STAFF
Three credits each semester.

A chronological survey of the civilization of the western world from the earliest times to the present. Emphasis is placed on general trends and on concepts that have influenced the modern world. Due attention is given to the part played by America in world history, especially during the expansion of Europe and in the twentieth century.

- HIST. 107. AMERICAN AND PENNSYLVANIA HISTORY TO 1865
Three credits MR. THATCHER

A general survey extending from the period of discovery and exploration to the end of the Civil War.

All students will be required to do a certain proportion of their outside reading in the history of Pennsylvania and its relation to the development of the nation.

- HIST. 108. AMERICAN HISTORY SINCE 1865—*Three credits*
MR. THATCHER

A general survey covering the period from 1865 to the present.

- HIST. 206. THE UNITED STATES IN THE TWENTIETH CENTURY
Three credits MR. THATCHER

An intensive study of the period since the Spanish-American War, emphasizing the emergence of the United States as a world power and the economic and social problems of the present century.

Prerequisite: Hist. 107 and 108.

- HIST. 223-224. AMERICAN CONSTITUTIONAL HISTORY
Three credits each semester MR. THATCHER

A study of the origins of the American Constitution and the growth of the American constitutional system with special attention to the role of the Supreme Court.

Prerequisite: Hist. 107, 108, and P.S. 101. Restricted to juniors and seniors. Hist. 223 is a prerequisite for Hist. 224.

- HIST. 225. HISTORY OF THE AMERICAN FRONTIER—*Three credits*
MR. THATCHER

A study of the westward movement in American history.

Prerequisite: Hist. 107 and 108.

- HIST. 228. HISTORY OF THE FOREIGN POLICY OF THE UNITED STATES
Three credits MR. THATCHER

A study of the evolution of the several policies that give direction to the relations of the United States with other nations.

Prerequisite: Hist. 107, 108, and P.S. 101. Restricted to juniors and seniors.

- HIST. 235. SOVIET RUSSIA AND THE FAR EAST—*Three credits* MR. MUI

A study of the historical conditions under which the Communist state was established in Russia and portions of the Far East.

Prerequisite: Hist. 101 and 102.

HIST. 242. ENGLISH HISTORY FROM THE REIGN OF ELIZABETH
Three credits

MR. MUI

Traces the growth and expansion of England from a national state to a world empire and later to a mother of commonwealths. The development of the national church, the Puritan revolt, the influences of the American and the French revolutions, the industrial revolution, political and social reform, growth of the cabinet system, and liberalism.

Prerequisite: Hist. 101 and 102.

HIST. 243. THE BRITISH EMPIRE AND COMMONWEALTH
OF NATIONS—*Three credits*

MR. MUI

A study of the evolution of the British Commonwealth of Nations, the expansion of British rule in India, and the growth of the British dependent empire, with emphasis on the imperial and foreign policies of Great Britain after the American Revolution.

Prerequisite: Hist. 101 and 102.

HIST. 255. EUROPE IN THE NINETEENTH CENTURY—*Three credits*

MR. KASLAS

A study of the political, social, and cultural development of Europe from the Congress of Vienna to World War I.

Prerequisite: Hist. 101 and 102.

HIST. 256. EUROPE IN THE TWENTIETH CENTURY—*Three credits*

MR. KASLAS

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.

Prerequisite: Hist. 101 and 102.

MATHEMATICS

Assistant Professor T. R. Richards, chairman; Assistant Professor Wasileski; Instructors Miller, Morgan, West; Assistant Leonardi.

The major in mathematics is outlined on page 58.

MATH. 99. ALGEBRA REVIEW—*No credit*

THE STAFF

Secondary algebra, extending through simultaneous quadratic equations.

Three hours a week.

MATH. 100. SAME AS PHYS. 101—See page 135.

MATH. 101. FUNDAMENTALS OF MATHEMATICS—*Three credits*

THE STAFF

A course designed for those who want a general background in mathematical concepts without specialization in techniques. Students taking Math. 105, 107, or 109 will not be granted credit for Math. 101 or 102.

MATH. 102. FUNDAMENTALS OF MATHEMATICS—*Three credits*

THE STAFF

A continuation of Math. 101.

MATH. 105. COLLEGE ALGEBRA AND TRIGONOMETRY—*Five credits*

THE STAFF

A combination of Math. 107 and 109.

Prerequisite: Math. 99 or its equivalent.

MATH. 107. COLLEGE ALGEBRA—*Three credits*

THE STAFF

Proportion, progressions, inequalities, mathematical induction, binomial theorem, complex numbers, roots of equations, permutations and combinations, probability, determinants, partial fractions.

Prerequisite: Math. 99 or its equivalent.

MATH. 109. PLANE TRIGONOMETRY—*Three credits*

THE STAFF

Trigonometric functions, solutions of triangles, trigonometric identities, inverse functions, trigonometric equations.

Prerequisite: Math. 99 or its equivalent.

MATH. 115. MATHEMATICS OF FINANCE—*Three credits*

THE STAFF

Progressions, binomial theorem, logarithms, simple interest, compound interest, equations of value, annuities, sinking funds, amortization, depreciation, capitalized cost.

Prerequisite: Math. 99 or its equivalent.

MATH. 118. INTRODUCTION TO STATISTICS—*Three credits*

THE STAFF

Frequency distributions and their graphical representation, measures of central tendency, dispersion, skewness, kurtosis, correlation, elementary curve fitting, use of tables of areas under normal curve.

Prerequisite: Math. 99 or its equivalent.

MATH. 122. ANALYTIC GEOMETRY—*Four credits*

THE STAFF

Study of geometric figures by means of coordinate systems, including the general problem of the equation of a locus, straight lines, circles, conic sections, transformation of coordinates, polar coordinates, parametric equations, families of curves, introduction to solid analytic geometry.

Prerequisite: Math. 105, or both Math. 107 and Math. 109.

MATH. 125. CALCULUS I—*Four credits* THE STAFF
Limits, derivatives and differentials, indefinite and definite integrals, differentiation and integration of algebraic functions, applications.
Prerequisite: Math. 122.

MATH. 126. CALCULUS II—*Four credits* THE STAFF
Differentiation and integration of transcendental functions, applications, improper integrals, indeterminate forms, partial derivatives, multiple integrals.
Prerequisite: Math. 125.

MATH. 127. TEACHING OF MATHEMATICS IN SECONDARY SCHOOLS MR. WASILESKI
Three credits
Building of a program in secondary mathematics, materials of instruction, aids in teaching, maintenance of interest, testing, informal practice in teaching arithmetic, algebra, plane and solid geometry, trigonometry, and logarithms.
Prerequisite: Math. 125.

MATH. 213. HIGHER ALGEBRA—*Three credits* MR. RICHARDS
Sets, mappings, relations, development of real number system from Peano's axioms, polynomials, the complex number field, groups.
Prerequisite: Math. 125, or permission of instructor.

MATH. 214. LINEAR ALGEBRA—*Three credits* MR. RICHARDS
Vector spaces, linear independence, linear transformations, matrices, determinants, systems of linear equations.
Prerequisite: Math. 213 or permission of instructor.

MATH. 220. COLLEGE GEOMETRY—*Three credits* MR. WASILESKI
Similar figures, systems of circles, circular inversion, triangles, Ptolemy's theorem, circles of antisimilitude, poles and polars, medians, orthocenters, nine-point circle, Desargues' theorem, Pascal's theorem, theorem of Pappus.
Prerequisite: plane geometry.

MATH. 228. MATHEMATICAL STATISTICS I—*Three credits* MR. WASILESKI
Probability, frequency functions, empirical distributions of one variable, moment generating functions, binomial and Poisson distributions, normal distribution, the null hypothesis, elementary sampling theory.
Prerequisite: Math. 126.

MATH. 229. MATHEMATICAL STATISTICS II—*Three credits* MR. WASILESKI
Correlation and regression, theoretical distributions of more than one variable, normal surface, goodness of fit, chi-square distribution, testing hypotheses, estimation of parameters, confidence intervals, small samples, student's t-distribution, testing for randomness.
Prerequisite: Math. 228.

MATH. 235. VECTOR ANALYSIS—*Three credits* THE STAFF
Vector algebra, differentiation of vectors, divergence and curl, the operator del, curvilinear coordinates, vector fields, applications.
Prerequisite: Math. 126.

MATH. 240. DIFFERENTIAL EQUATIONS AND INFINITE SERIES—*Four credits* THE STAFF
First order equations, linear equations, applications, solution by successive approximation, systems of differential equations, infinite series, power series solution of differential equations.
Prerequisite: Math. 126.

MATH. 251. ADVANCED CALCULUS I—*Three credits* MR. RICHARDS
Introduction to the theory of functions of real variables. The emphasis in this course and the following one is on proof, by the delta-epsilon technique, of theorems concerning sequences and other functions of one variable. Some time is spent on functions of more than one variable.
Prerequisite: Math. 126.

MATH. 252. ADVANCED CALCULUS—*Three credits* MR. RICHARDS
A continuation of Math. 251.
Prerequisite: Math. 251.

MUSIC

Associate Professor Detroy, chairman; Assistant Professor Moran; Instructors Balshaw, Clark, Isaacs, A. Liva, F. Liva, Sheeder and Waller.

Liberal Arts students wishing to major in music will follow the program outlined on page 59.

APPLIED MUSIC¹

Individual and group instruction is offered at all levels of difficulty to students in piano, pipe organ, voice, and orchestral and band in-

¹ For fees see page 28.

struments. A series of fifteen lessons a semester and a practical demonstration (examination) before the music faculty are necessary if credit is to be obtained for such study.

Students who are not music majors may receive one credit each semester for voice or instrumental study. No 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.

MUS. 100. INTRODUCTION TO MUSIC—*Three hours*

MR. DETROY, MR. MORAN

An elementary course in the art of enjoying and listening to music. Non-technical, it covers briefly the entire range of music in various forms, styles, and media. Emphasis is placed upon enlarging the musical horizon through the use of a considerable number of illustrations.

MUS. 101-102-103-104. THEORY OF MUSIC—*Five credits each course*

MR. DETROY, MR. MORAN

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 technics.

The first two semesters of theory are divided between ear training, two hours; solfeggio, two hours; harmony, one hour. The third and fourth semesters are divided between ear training, one hour; solfeggio, one hour; harmony, three hours.

The concentration of all theory into these four courses is in accordance with the method now employed in many of our leading schools of music.

There is no prerequisite for Mus. 101. Students may be admitted to Mus. 102, 103, and 104 by examination.

MUS. 109. HISTORY OF MUSIC—*Three credits*

MR. DETROY

A detailed study of the history of music from the beginning of civilization to the seventeenth century.

MUS. 110. HISTORY OF MUSIC—*Three credits*

MR. DETROY

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.

MUSIC 111-112. PIANO CLASS 1 AND 2—*Two credits each semester*

MISS CLARK

Class instruction in secondary piano. The classes will be divided into suitable groups according to proficiency. This course is required for all music education majors who cannot play piano grade 4 or better.

No prerequisite.

MUSIC 113-114. PIANO CLASS 3 AND 4—*Two credits each semester*

MISS CLARK

Class instruction in secondary piano in advance of Music 112. This course is a continuation of the required course for all music education majors who cannot play piano grade 4 or better.

Prerequisite: Mus. 112.

MUS. 121-122-123-124. BAND—*One-half credit each semester*

MR. MORAN

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 majors are required to participate in the band for four years.

MUS. 125-126-127-128. CHORUS—*One-half credit each semester*

MR. DETROY

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 vocal and piano music education majors are required to participate in the chorus for four years.

MUSIC 131-132-133-134. ORCHESTRA—*One-half credit each semester*

MR. LIVA

Participation in the Wyoming Valley Philharmonic Orchestra gives the student experience in the complete range of symphonic literature. Students desiring to participate in the orchestra should consult with the Director.

MUSIC 215. INSTRUMENTATION—*Two credits*

MR. DETROY AND MR. MORAN

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. 102 or the approval of the Chairman of the Department.

MUSIC 216. ORCHESTRA AND BAND ARRANGING—*Two credits*
MR. DETROY AND MR. MORAN

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* MR. DETROY

The technique of composition as disclosed by melodic, harmonic, and structural analysis of music in varied styles and from diverse periods.

Prerequisite: Mus. 102 or equivalent as demonstrated by an examination.

MUS. 218. COUNTERPOINT—*Three credits* MR. DETROY

A study of the sixteenth century art of contrapuntal writing as found in the styles of Palestrina, di Lasso, and Ingegneri.

Prerequisite: Mus. 102.

Music Education

MUS. ED. 101-102. CLARINET CLASS AND METHODS—*Two credits per semester* MR. MORAN

Methods of teaching and instruction in the clarinet for those in the public school music course.

No prerequisite.

MUS. ED. 103-104. BRASS CLASS AND METHODS—*Two credits per semester* MR. MORAN

A course, usually in trumpet, for students not majoring in the brass field.

No prerequisite.

MUS. ED. 105. WOODWIND CLASS METHODS—*Two credits per semester* MR. MORAN

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 those instruments.

Prerequisite: Mus. Ed. 102.

MUS. ED. 106. BRASS CLASS METHODS—*Two credits* MR. MORAN

A class in brass is conducted as an introduction to the teaching of brass instruments and as demonstration of class teaching of these instruments. The instruments taught include trumpet, French horn, trombone, baritone, and tuba.

Prerequisite Mus. Ed. 104.

MUS. ED. 107-108. VOICE CLASS AND METHODS—*Two credits per semester* THE STAFF

A course in the fundamentals of correct voice production; 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. 109-110. CONDUCTING AND SCHOOL MUSIC MATERIALS—*Two credits per semester* MR. DETROY AND MR. MORAN

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. 111-112. VIOLIN CLASS AND METHODS—*Two credits per semester* MR. LIVA

A class in elementary violin playing as a practical introduction to the technical problems involved in the playing of stringed instruments.

No prerequisite.

MUS. ED. 113-114. STRING INSTRUMENT CLASS METHODS—*Two credits per semester* MR. LIVA

A class in the playing of the viola, violoncello, and bass as an introduction to the teaching of these instruments and as a demonstration of class teaching.

Prerequisite: Mus. Ed. 112.

MUS. ED. 201. ELEMENTARY SCHOOL MUSIC METHODS—*Two credits* MR. MORAN

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.

No prerequisite.

MUS. ED. 202. HIGH SCHOOL MUSIC METHODS—*Two credits* MR. MORAN

The course is planned to provide a preparation for teaching the various aspects of music in the high school.

No prerequisite.

MUS. ED. 203-204. OBSERVATION AND PRACTICE TEACHING—*Four credits per semester*
THE STAFF

A course in the observation and practice teaching of vocal or instrumental music in the elementary or high schools. Fee: \$10.00 each semester.

NURSING EDUCATION

Assistant Professor Jessee, chairman; Instructors Jackson, Janjigan, Klein, M. Riley, Seeherman and Yench.

COOPERATIVE PROGRAM

LEBANON VALLEY COLLEGE AND WILKES COLLEGE

Lebanon Valley College and Wilkes College have entered into a cooperative program whereby nurses working in the vicinity of Annville and Lebanon may earn a degree in Nursing Education from Wilkes College by taking their academic credits on the campus at Lebanon Valley College and their professional credits at Wilkes, either in extension at the Hospital or in residence at Wilkes-Barre.

The usual residence requirements for a degree in Nursing Education may be satisfied by taking one-half the work on the campus at Lebanon Valley College and the other one-half at Wilkes College.

Enrollment in all of the following courses, with the exceptions of N.E. 101 and 104 is limited to graduate nurses.

N.E. 101. FOUNDATIONS OF NURSING—*Two credits* MISS JESSEE

A general survey of the history of nursing with emphasis upon the religious, social and educational factors that have stimulated its development.

N.E. 102. TRENDS IN NURSING EDUCATION—*Two credits* MISS JESSEE

A discussion of present problems in nursing and trends or patterns that emerge in the efforts to solve these problems.

N.E. 104. COMMUNITY RESOURCES—*Two credits* MISS JESSEE

A survey of the functions and activities of agencies and organizations contributing to the health, and social welfare of the citizens of the community.

N.E. 106. SUPERVISION AND ADMINISTRATION—*Two credits*
MISS JESSEE

A discussion of the basic principles of supervision and administration with emphasis upon democratic leadership and the development of constructive interpersonal and interdepartmental relationships.

N.E. 107. PRINCIPLES AND METHODS IN NURSING EDUCATION
Two credits MISS JESSEE

This course deals with the selection and organization of teaching materials and learning experiences. It includes the appraisal of effective methods of teaching and the evaluation of student progress and achievement.

N.E. 112. FIELD EXPERIENCE IN SUPERVISION OR TEACHING
Four credits MISS JESSEE

Supervised observation and practice in a hospital.

Prerequisite: Approval of advisor.

N.E. 113 & 114. MEDICAL AND SURGICAL NURSING—*Two credits each semester* MISS YENCH

Advanced study of nursing principles and techniques as applied to the expert nursing care of medical and surgical patients. Offered in two semesters.

N.E. 115. OBSTETRIC NURSING—*Two credits* MRS. SEEHERMAN

Advanced study of nursing principles and procedures as applied to expert care of the obstetric patient.

N.E. 116. PEDIATRIC NURSING—*Two credits* DR. KLEIN

Advanced study of nursing principles and procedures as they apply to the effective care of children.

N.E. 117. PSYCHIATRIC NURSING—*Two credits* DR. JANJIGIAN

Advanced study of nursing principles and procedures as utilized in providing expert care for psychiatric patients.

N.E. 118. PUBLIC HEALTH NURSING—*Two credits* MISS JACKSON

An introduction to the field of public health nursing, including historical development, organization, functions, and trends.

N.E. 119. PUBLIC SCHOOL NURSING—*Two credits* MISS JACKSON

A study of the public school health program and the functions of the nurse as an integral part of the health team.

N. E. 120. PROBLEMS OF SCHOOL NURSING—*Two credits*
MISS JACKSON

The identification and discussion of the problems involved in the administration of school health programs.

PHILOSOPHY—RELIGION

Professor Vujica, chairman; Instructor Friedlander and Schindler.

A major in the combined fields of philosophy and religion consists of twenty-four hours in philosophy and religion. The courses may be selected from these two fields as desired by the student.

Philosophy

PHIL. 101. INTRODUCTION TO PHILOSOPHY—*Three credits* MR. VUJICA

An introduction to the main problems of philosophy: the nature of the universe; the origin of life; the nature of mind and soul; the freedom of the will; the sources, nature and validity of knowledge. The main types of philosophy, such as Materialism, Idealism, Realism, Pragmatism are also discussed.

PHIL. 102. LOGIC—*Three credits* MR. VUJICA

The objective of the course is to familiarize the student with the elementary principles of clear and effective thinking by the study of the nature and rules of both deductive and inductive reasoning as well as the principles of scientific methodology.

PHIL. 203. INDIVIDUAL AND SOCIAL ETHICS—*Three credits* MR. VUJICA

A critical study of standards for judging the rightness or wrongness of conduct. Formalism, Utilitarianism, Self-realizationism and other great ethical systems are discussed. The application of moral principles to social, economic and political life.

PHIL. 204. PHILOSOPHY OF RELIGION—*Three credits* MR. VUJICA

A philosophic scrutiny of the phenomenon religion. The nature and forms of religious experience; the relation of faith and reason; examination of arguments for God's existence; the interpretation of good and evil in the world; the argument for immortality.

PHIL. 205. AESTHETICS—*Three credits* THE STAFF

Analysis of the nature, standards and criteria of beauty in arts; the meaning of beauty judgments and the processes of appreciation. An investigation of the objective qualities of those things which are found to be beautiful.

PHIL. 206. SOCIAL AND POLITICAL PHILOSOPHIES—*Three credits* MR. VUJICA

A discussion of fundamental principles underlying social and political institutions. The theories of Plato, Aristotle, Hobbes, Locke, Rousseau,

Hume, Burke, Hegel, Bentham, Mill and others will be examined. Special attention to the contemporary scene.

PHIL. 207. PHILOSOPHIES OF HISTORY—*Three credits* MR. VUJICA

An examination of the principal interpretations of history. The views of Augustine, Rousseau, Nietzsche, Hegel, Marx, Comte, Wundt, Spengler, Toynbee, Schweitzer, Sorokin, Niebuhr and others on the meaning and purpose of historical events.

PHIL. 212. HISTORY OF MODERN PHILOSOPHY—*Three credits*

MR. VUJICA

The most important systems of philosophy from the renaissance through the end of the nineteenth century. Seventeenth century rationalism (Descartes, Spinoza, Leibnitz). Eighteenth century empiricism (Locke, Berkeley, Hume). Kant's criticism and Hegel's idealism. Post-Kantian and post-Hegelian philosophies. The impact of modern science on philosophical speculation.

PHIL. 213. RECENT AND CONTEMPORARY THOUGHT—*Three credits*

MR. VUJICA

The principal trends in twentieth century philosophies. The contributions of Bergson, James, Dewey, Santayana, Croce, Russell, Whitehead, Heidegger, Maritain and other recent and contemporary philosophers to the problems and ideas characteristic of the age.

Religion

REL. 101. MAN'S RELIGIONS—*Three credits* MR. VUJICA

Nature and origin of religion. Significant founders and leaders of the great historical and living religions. Sacred literatures, beliefs, and rituals. A comparison of the most important features of the great religions. The contributions of religion to the development and preservation of cultural values.

REL. 201. THE LITERATURE OF THE OLD TESTAMENT—*Three credits*

THE STAFF

A study of the religious thought and practice of the early Hebrews. Codes and critical analysis of the writings of the Old Testament. Comparative studies are made of the Douay, King James, and Jewish translations of the Old Testament.

REL. 202. THE TEACHINGS OF THE GREAT HEBREW PROPHETS

Three credits

THE STAFF

A study of the Prophetic and Wisdom literature. Emphasis is placed upon the Prophetic and Post-Exilic periods of Hebrew history. The

gradual rise of moral ideas is investigated. The course is a continuation of Rel. 201.

REL. 204. THE LITERATURE OF THE NEW TESTAMENT—*Three credits*
Mr. VUJICA

A study of the types of literature found in the New Testament. Problems of language and authorship. The religious teachings of Jesus and the Apostolic Church are studied against the background of their own time and examined in their significance for contemporary life.

PHYSICAL EDUCATION AND HYGIENE

Instructor Reese, chairman; Instructor Bubeck.

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 during the freshman and sophomore years.

The College men at the beginning of each year are given a medical and a physical examination. The work in physical education includes soccer, football, basketball, baseball, volley ball, and other competitive games.

The College women also are given a thorough medical and physical examination before entering upon the program of physical education. The work for women consists of such activities as dancing, basketball, and natural gymnastics.

P.E. 101-102. PHYSICAL EDUCATION¹
One credit each semester THE STAFF

This course is designed to promote physical coordination and good health habits and to encourage participation in activities that will provide relaxation and exercise throughout life. Two hours each week.

P.E. 103-104. PHYSICAL EDUCATION—*One credit each semester*
THE STAFF

This course is a continuation of P.E. 101 and 102.

P.E. 105-106. PERSONAL HYGIENE—*One credit each semester*
THE STAFF

A study of present day health problems. The course undertakes to help students enjoy maximum health and happiness through better

¹Class instruction in personal hygiene is required of all students, even those excused by physicians from taking physical education.

understanding of nutrition, infection, disease, nervous and mental disorders, and problems of parenthood. One hour each week.

PHYSICS

Professor Hall, chairman; Assistant Professors Heltzel, Thomas; Instructors Ditoro and May.

PHYS. 100. PHYSICAL SCIENCE—*Three credits* MR. THOMAS

A course for the non-science student to enable him to understand and appreciate 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 three hours a week.

PHYS. 101. BASIC PHYSICAL PROBLEMS—*One credit* THE STAFF

An introduction to the proper procedure for problem solution, both mathematical and graphical. Slide rule practice, graphs, and lettering. Practicum 3 hours a week.

PHYS. 111-112. INTRODUCTORY PHYSICS—*Four credits* THE STAFF

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. Three class hours and one three-hour laboratory. Fee: \$15 each semester.

Prerequisite: Math. 105, or Math. 107, 109, or permission of instructor.

PHYS. 150. GENERAL PHYSICS I—*Four credits* MR. HALL AND STAFF

A thorough grounding in the physical laws of nature. Mechanics. Instruction by demonstration lecture, recitation, and experimental work. Class three hours a week and laboratory three hours a week. Fee: \$15.

Prerequisite: Math. 105, or Math. 107, 109.

PHYS. 151. GENERAL PHYSICS II—*Four credits* MR. HALL AND STAFF

Continuation of Phys. 150. Sound, heat, and light. Class three hours a week and laboratory three hours a week. Fee: \$15.

Prerequisite: Phys. 150.

PHYS. 152. GENERAL PHYSICS III—*Four credits* MR. HALL AND STAFF
Continuation of Phys. 150 and 151. Electricity and modern physics. Class three hours a week and laboratory three hours a week. Fee: \$15.
Prerequisite: Phys. 150.

PHYS. 251. ELECTRICAL MEASUREMENTS—*Three credits* MR. THOMAS
Precision measurement of electrical quantities and their application to the field of chemistry; includes thermal electromotive force, resistance thermometers, photo electromotive force, elementary electronic circuits and their application. Class two hours a week and laboratory three hours a week. Fee: \$15.
Prerequisite: Phys. 152, Math. 126.

POLITICAL SCIENCE

Professor Mailey, chairman; Instructor Hibbard.

A major in political science consists of twenty-four hours. All courses except P.S. 100 are acceptable toward the major.

P.S. 100. INTRODUCTION TO POLITICAL SCIENCE—*Three credits*
THE STAFF

This course is a broad, comprehensive introduction to political science. It will serve both as a starting point for more advanced study in political science and also as a source of basic political information for the student who will only take one course in this field. All the subdivisions of political science are presented simply and clearly and the interrelationships of these subdivisions are shown. These commonly recognized fields of political science are covered: Political theory, American government, comparative governments, public administration, political parties, pressure groups, public opinion, propaganda, international politics, international law, legal systems.

P.S. 200. AMERICAN NATIONAL GOVERNMENT—*Three credits*
THE STAFF

A study of the National Government of the United States emphasizing the constitutional and legal foundations, the structure and agencies of the government, the consequent growth of public administration and the scope and diversity of national government programs and functions.

Prerequisite: P.S. 100.

P.S. 201-202. CONSTITUTIONAL LAW—*Three credits each semester*
MR. MAILEY AND MR. HIBBARD

A course intended to show the growth of our Constitution by the case study method. The underlying principles of federalism and the

changing constitutional position of the states are particularly emphasized.

Prerequisite: P.S. 101.

P.S. 203. POLITICS AND POLITICAL PARTIES—*Three credits* MR. MAILEY
A course intended to analyze the movements of political parties, elections, and the various methods used to gain control.

Prerequisite: P.S. 101.

P.S. 204. PUBLIC OPINION AND PROPAGANDA—*Three credits*

MR. MAILEY

A study in the behavior of governance, including the factors which determine attitude, the formation and expression of public opinion, and propaganda as used by pressure groups.

Prerequisite: P.S. 101 and Soc. 100.

P.S. 205. STATE GOVERNMENT—*Three credits* MR. HIBBARD

A broad, general course covering the structure, powers, and function of state governments in the United States. Special emphasis is placed on the Pennsylvania State Government.

Prerequisite: P.S. 101.

P.S. 206. MUNICIPAL GOVERNMENT—*Three credits* MR. HIBBARD

A course undertaking the study of the organization, work, and administration of local government. Since the national government has assumed a new significance today, special attention is given to the relationship between local and national government.

Prerequisite: P.S. 101.

P.S. 207. PUBLIC ADMINISTRATION—*Three credits* MR. MAILEY

A study of the organization, activity, problems, and the recruitment policy of the public service.

Prerequisite: P.S. 101.

P.S. 208. LABOR LEGISLATION—*Three credits* MR. MAILEY

A course dealing with the role of government in the field of labor relations and with the laws affecting the conditions of employment and employee-employer relations. The course stresses the increasing importance of government in a field heretofore free of any regulation.

Prerequisite: P.S. 101.

P.S. 209. SOCIAL LEGISLATION—*Three credits* MR. MAILEY

A course dealing with the broad, humanitarian, social legislation of recent years which is generally labeled social insurance: unemployment compensation, workmen's compensation, and social security.

Prerequisite: P.S. 101.

P.S. 221. INTERNATIONAL LAW—*Three credits* MR. KASLAS

A study of the development of the body of customs and rules which states have developed to govern their relations, with particular consideration for the responsibility of states for their enforcement.

Prerequisite: P.S. 101.

Desideratum: United States and European history.

P.S. 222. INTERNATIONAL POLITICS—*Three credits* MR. KASLAS

A broad, general course which aims to present many of the factors that condition the foreign policies of nations.

Prerequisite: P.S. 101.

Desideratum: Some knowledge of history, governments, and geography.

P.S. 223. CABINET SYSTEMS OF GOVERNMENT—*Three credits*

MR. KASLAS

A study of the European versions of democratic government beginning with Great Britain and considering the variations from the British system of government found on the continent.

Prerequisite: P.S. 100.

P.S. 224. SOVIET SYSTEM OF GOVERNMENT—*Three credits*

MR. KASLAS

A course dealing with the structure and functions of the Soviet Government emphasizing the contrasts and similarities in form with governments of the West.

Prerequisite: P.S. 223.

PSYCHOLOGY

Assistant Professor R. Riley, chairman; Instructors Kanner and Krasno.

A major in psychology consists of twenty-four hours. Psychology 100 is *not accepted* toward a major; Sociology 255 is accepted.

The Department requires that psychology majors take one year of a laboratory science; they may elect biology, chemistry, or physics and substitute this for either Biology 100 or Physics 100. Students planning to take graduate work in psychology should study either French or German in order to meet graduate school requirements.

The major in psychology is designed for students who plan to continue the study of psychology on the graduate level, as well as for those whose interests lie in the teaching of psychology in colleges or in the

application of the study to such fields as advertising, clinical work, business, education, and industrial personnel work. Students are cautioned that an undergraduate major in psychology *does not* qualify them for professional psychological work. No student can qualify as a psychologist without advanced graduate study; in a great many fields today, moreover, professional psychologists must hold the degree of Doctor of Philosophy.

Students who desire certification by the Pennsylvania Department of Public Instruction as psychological examiners or public school psychologists should carefully plan their programs under the direction of their faculty advisers to preclude the possibility of omitting necessary courses.

PSY. 100. GENERAL PSYCHOLOGY—*Three credits* THE STAFF

An introduction to the study of human behavior. The emphasis is on the study of the individual and his reactions to other individuals and to his environment. An attempt is made to equip the student with certain general psychological principles and to encourage the acquisition of a technical vocabulary.

PSY. 201. ADVANCED GENERAL PSYCHOLOGY—*Three credits* THE STAFF

A more detailed study of some of the topics treated only superficially in the introductory course. More attention is given to such subjects as learning, perception, emotions, etc. Required of prospective majors. (Offered in alternate years.)

Prerequisite: Psy. 100.

PSY. 203-204. EXPERIMENTAL PSYCHOLOGY—*Three credits each semester* THE STAFF

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. (Offered in alternate years.)

Prerequisite: Psy. 100.

PSY. 206. APPLIED PSYCHOLOGY—*Three credits* THE STAFF

A survey of significant contributions to individual differences. Methods of evaluating and measuring these differences; their significance to the individual, the home, the school, and to vocational and community life.

Prerequisite: Psy. 100.

PSY. 207. CHILD PSYCHOLOGY—*Three credits* THE STAFF

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. 100.

PSY. 208. HUMAN BEHAVIOR—*Three credits* THE STAFF

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. 100.

PSY. 212. PSYCHOLOGICAL TESTS—*Three credits* THE STAFF

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. 251 and Psy. 255.

Prerequisite: Psy. 100.

PSY. 251. INDUSTRIAL PSYCHOLOGY—*Three credits* THE STAFF

An introduction to the industrial application of psychology in the selection, classification, and training of employees; reduction of monotony and fatigue; the maladjusted worker; accident prevention; work conditions; and employee motivation and morale.

Prerequisite: Psy. 212.

PSY. 254. SYSTEMATIC PSYCHOLOGY—*Three credits* THE STAFF

A historical introduction to the various points of view in recent psychology, followed by a study of the theories of such leaders in the field as Watson, Freud, McDougall, Thorndike, and Kohler. (Offered in alternate years.)

Prerequisite: Psy. 100 and one other course in psychology.

PSY. 255. CLINICAL PSYCHOLOGY—*Three credits* THE STAFF

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. (Offered in alternate years.)

Prerequisite: Psy. 212.

PSY. 257. ABNORMAL PSYCHOLOGY—*Three credits* THE STAFF

A general survey of the principal forms of mental abnormalities, with emphasis on causes, symptoms, course, and treatment. (Offered in alternate years.)

Prerequisite: Psy. 207, 208 and permission of head of department.

PSY. 271-272. RESEARCH IN PSYCHOLOGY—*Three credits* THE STAFF

An opportunity to conduct individual research projects under supervision. (*Open to psychology majors only.*)

Prerequisite: permission of head of department.

RETAILING

Professor Rosenberg, chairman; Instructors Michman, Morgan, Rubin.

A major in Retailing consists of 24 credits in retailing courses which include Ret. 101, 102, 207, 212, 214, 224.

RET. 101. PRINCIPLES OF RETAILING—*Three credits* MR. MICHMAN

A basic course that discusses the opportunities in retailing; types of retail institutions; problems of store policy, store location, store organization, and personnel practices. The relationship of the retailer to the manufacturer, to the consumer, to the government, to the community, and to competitors is analyzed.

RET. 102. RETAIL STORE ORGANIZATION AND MANAGEMENT
Three credits THE STAFF

Basic principles of successful retail store organization; study of the organizational structure of department stores; organization and functions of operating divisions; planned observation in employment, training, receiving, marking, delivery, wrapping, phone, mail order and adjustment departments. Field trips to retail stores.

RET. 201. COLOR AND DESIGN—*Two credits* MR. O'TOOLE

Ages of civilization and development of industrial age. Periods, style symbols, classicism, modern design. Components of composition; problems of function; proportion, balance, rhythm, color, light, texture. Fundamentals of interior decoration. Color and design in apparel. Studio, four hours each week.

RET. 205. RETAIL ADVERTISING AND SALES PROMOTION—
Three credits MR. MICHMAN

Study of basic principles of retail advertising and sales promotion. Special emphasis is placed on the preparation of copy for various types of retail establishments as well as on the analyses of current advertisements. Elements of the advertisement: headline, copy, layout, type, illustrations, and selection of media are analyzed.

RET. 207. RETAIL SELLING—*Three credits* MR. MICHMAN

Techniques of retail selling including practical sales demonstrations. Analysis of the needs of customers; the handling of difficult situations; the techniques of increase sales; and building permanent business.

RET. 210. ELEMENTS OF MERCHANDISE—*Three credits* MR. MORGAN

Merchandise information; fibers and fabrics; history, rise, production, manufacturing process from fiber to finished fabric; textile terminology, trade names. Identification, testing of fibers; care of fabrics; new developments. Study of natural, industrial and synthetic materials.

RET. 212. PURCHASES AND MERCHANDISING CONTROL—*Three credits*

The principles, techniques, and problems encountered in merchandising; purchase planning, markup, markdown, inventories and their control, turnover, retail method of inventory, and the types and limitation of stock control systems.

Prerequisite: Approval of instructor.

RET. 214. RETAIL BUYING—*Three credits* THE STAFF

Buying as a career; types of organizations; functional bureaus as aids in buying; determination of what to buy; analysis of customer demand; where to buy; when and how to buy; brands and labeling; trade relations. Laboratory work required.

Prerequisite: approval of instructor.

RET. 217. FUNDAMENTALS OF FASHION—*Three credits* THE STAFF

Fashion as a social force. How the fashion world works. Fashions in Paris, England, United States. Apparel, millinery, shoes, accessories; fashion shows.

Prerequisite: approval of instructor.

RET. 219. RETAIL PERSONAL RELATIONS—*Three credits* THE STAFF

Retail personnel policies; job analysis; employment procedure; wage plans and incentives; employee training; employee evaluation; employee stabilization; employee participation; legislation affecting labor problems in retailing.

RET. 220. ORGANIZATION AND OPERATION OF THE SMALL STORE
Two credits THE STAFF

Importance of small business; factors in business success; justification of new businesses; financing; location; policies; management; employee relations; sales promotion; turnover; profit; records; small business and the future.

RET. 224. RECENT TRENDS AND DEVELOPMENTS IN RETAILING

Three credits

THE STAFF

Review of fundamentals; trends in retailing; study of developments in cooperation with retail store executives. Laboratory work; reports on trends and developments.

SECRETARIAL STUDIES

Professor Rosenberg, chairman; Instructors Craig, Hoover, Jenkins.

Students majoring in secretarial studies are required to take a sequence of twenty-four credits outside the Department of Secretarial Studies. It is advisable to decide upon this sequence not later than the sophomore year. The remainder of the electives may be divided between commerce and finance and liberal arts courses according to the interests and vocational objectives of each student.

S.S. 99. PERSONAL-USE TYPEWRITING—*No Credit* THE STAFF

Development of skill in typewriting; development of an understanding of good style and form in typewritten material; application of typing skill to the writing of business letters and term papers. Laboratory fee required. Four hours a week. Fee: \$10.

S.S. 101-102. SHORTHAND AND TYPEWRITING

Two credits shorthand, two credits typewriting each semester

MRS. CRAIG, MR. HOOVER

Development of reading and writing skill in Gregg Shorthand, Simplified; development of skill in typewriting, and ability to apply skill to typical office problems; training in transcription from shorthand notes, during second semester, with emphasis on punctuation and spelling. Laboratory fee required. Eight hours each week. Two hours lecture, six hours laboratory. Fee: \$10.

S.S. 105. SHORTHAND¹—*Two credits*

MR. JENKINS

Development of reading and writing skill in basic Gregg Shorthand, Simplified, and review of simple English essentials that are necessary in transcription; completion of basic theory. Four hours each week. One hour lecture, three hours laboratory.

S.S. 106. SHORTHAND¹—*Two credits*

MR. JENKINS

Review of Gregg Shorthand, Simplified, with emphasis on fluency and legibility; development of speed and accuracy in the application of shorthand; pre-transcription training; development of desirable traits and work habits. Four hours each week. One hour lecture, three hours laboratory.

Prerequisite: S.S. 105 or equivalent.

S.S. 107-108. TYPEWRITING¹—*Two credits each semester* MR. JENKINS

Development of skill in typewriting; application of skill to letter writing, envelopes and cards, tabulation problems, copying from rough draft, manuscript writing; study of form and style; transcription from shorthand notes during second semester. Laboratory fee required. Four hours laboratory each week. Fee: \$10 each course.

S.S. 109-110. ADVANCED STENOGRAPHY

Three credits shorthand, one credit typewriting each semester

MRS. CRAIG

Review of Gregg Shorthand, Simplified, with emphasis on fluency and legibility; development of speed and accuracy in shorthand, typewriting, and transcription; application of typing skill to letter writing, tabulation, rough drafts, commercial forms; preparation of telegrams, manuscripts and term papers, stencils and Ditto master copies; training in punctuation, spelling, and other English problems; study of correct form and style; development of desirable work habits, attitudes, and traits. Laboratory fee required. Eight hours each week. Two hours lecture, six hours laboratory. Fee: \$10 each course.

Prerequisite: S.S. 102.

S.S. 113-114. ADVANCED SHORTHAND²—*Two credits each semester*

MR. JENKINS

Review of Gregg Shorthand, Simplified, with emphasis on fluency and legibility; development of speed and accuracy in the application of shorthand, typewriting, and English; development of desirable work habits and attitudes. One hour lecture, three hours laboratory.

Prerequisite: S.S. 106.

S.S. 115. ADVANCED TYPEWRITING²—*Two credits* MR. JENKINS

Development of greater speed and accuracy in typewriting; review of form and style in typewritten material; application of typing skill to letter writing, tabulation, rough drafts, commercial forms; preparation of telegrams, manuscripts and term papers, stencils and Ditto master copies; transcription from shorthand notes; development of desirable work habits and attitudes. Laboratory fee required. Four hours laboratory each week. Fee: \$10.

Prerequisite: S.S. 108.

S.S. 120. SECRETARIAL ACCOUNTING—*Three credits* MR. HOOVER

Fundamental principles of accounting and their application to the keeping of books and records in business and professional offices. S.S. 120 may not be used for credit toward the accounting requirement for Business Education majors.

¹ Credit will be given only to students who have not previously taken S.S. 101-102.

² Credit will be given only to students who have not previously taken S.S. 109-110.

S.S. 200. MEDICAL STENOGRAPHY—*Three credits*

MRS. CRAIG

Study of accepted procedures in typical medical offices, clinics, and hospitals; application of stenographic skills to medical dictation; transcription of case histories taken from hospital records; specialized dictation in several branches of medicine. Five hours each week. One hour lecture, four hours laboratory.

Prerequisite: approval of instructor.

S.S. 203. SPEECH REPORTING—*Two credits* MRS. CRAIG, MR. HOOVER

Speed dictation for speech reporting. Four hours each week.

Prerequisite: satisfactory background in English; ability to take dictation at 100 words a minute and to transcribe notes rapidly and accurately. One hour lecture, three hours laboratory.

Prerequisite: approval of instructor.

S.S. 205. OFFICE PROCEDURES AND OFFICE MACHINES—*Four credits*

MRS. CRAIG, MR. HOOVER

Application of skills to integrated office problems; procedures in typical business and professional offices; study of personal and technical requirements for secretaries; understanding and use of various commercial forms; operation and use of office machines and equipment; personal and vocational guidance. Laboratory fee required. Eight hours each week. Two hours lecture, six hours laboratory. Fee: \$10.

Prerequisite: approval of instructor.

S.S. 243. BUSINESS EDUCATION AND METHODS OF INSTRUCTION IN

SECRETARIAL STUDIES—*Three credits*

MRS. CRAIG

Principles of business education; business curricula in secondary schools; psychology of skill-building as applied to shorthand and typewriting; techniques of instruction in typewriting and shorthand, standards, tests, and measurement in the secretarial studies; content, objectives, and methods of instruction in office practice.

SOCIOLOGY AND ANTHROPOLOGY

Professor Symmons, chairman; Instructors Bloomburg, Edelstein, L. Mui, Yarnal.

A major in sociology consists of twenty-four hours. Although Soc. 100 is prerequisite to all the courses in sociology, it is not accepted toward a major in sociology. P.S. 204 and Phil. 206 will be accepted toward the major in sociology.

Students who intend to major in sociology are requested to plan their work in the Department in consultation with the Chairman. A major in sociology should ordinarily include the following three courses: Soc. 255, 265, and 280. With the approval of the Department Chairman, however, other courses may in some instances be substituted.

SOC. 100. INTRODUCTION TO SOCIOLOGY—*Three credits* THE STAFF

A systematic view of sociology, providing essentials for an intelligent approach to questions about man in society and for specialized study of sociological problems.

SOC. 200. MARRIAGE AND THE FAMILY—*Three credits* MR. SYMMONS

The development of marriage and the family in ethnological and historical perspective. Family disorganization and problems of adjustment to modern conditions. Psychological aspects of marriage. Factors responsible for marital success or failure.

Prerequisite: Soc. 100 or permission of the instructor.

SOC. 204. SOCIOLOGY OF EDUCATION—*Three credits* MR. SYMMONS

A study of the structure and function of formal education as a key institution in our society. Interrelationships between education and other basic institutions. Human relations within the school. The school and the community. Contemporary educational problems and their social backgrounds.

Prerequisite: Soc. 100.

SOC. 212. SOCIOLOGY OF INDUSTRY—*Three credits* MRS. MUI

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. 100 and Ec. 100, or permission of the instructor.

SOC. 215. SOCIOLOGY OF URBAN LIFE—*Three credits* THE STAFF

The development of modern cities; effects of urban life upon social organization and personality patterns; major social problems of the cities.

Prerequisite: Soc. 100.

SOC. 230. SOCIAL PROBLEMS—*Three credits* THE STAFF

A survey of most pressing contemporary social problems and an examination of current theories of social disorganization.

Prerequisite: Soc. 100.

SOC. 235. CRIMINOLOGY—*Three credits* MRS. MUI

Crime and the criminal are considered with reference to individual and environmental factors in crime causation. An analysis of theories of crime and punishment; statistics on crime; police methods; prisons; scientific objectives of the new penology.

Prerequisite: Soc. 230, or permission of the instructor.

SOC. 245. FIELDS OF SOCIAL WORK—*Three credits* MR. YARNAL

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. 100 and Psy. 100.

SOC. 255. INTRODUCTION TO SOCIAL PSYCHOLOGY—*Three credits*

MR. SYMMONS

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. 100 and Psy. 100.

SOC. 260. CULTURE, SOCIETY, AND PERSONALITY—*Three credits*

MR. SYMMONS

A study of the influences on personality that derive from group and cultural sources. Comparative study of personality formation under different cultural conditions. Analysis of social factors related to personality disorganization and reorganization.

Prerequisite: Soc. 255 or Soc. 265.

SOC. 265. INTRODUCTION TO ANTHROPOLOGY—*Three credits*

MR. SYMMONS

A general survey of the field of anthropology stressing its cultural aspects. Fossil man and modern races; origin and development of culture.

Prerequisite: Soc. 100.

SOC. 270. PEOPLES AND CULTURES OF THE WORLD—*Three credits*

MR. SYMMONS

A survey of the non-Western cultures of the world with an emphasis on one of the following areas: The Middle East, The Far East, South-East Asia, Africa, Australasia, Latin America.

Prerequisite: Soc. 100.

SOC. 280. MODERN SOCIOLOGY AND ITS HISTORICAL BACKGROUND—

Three credits

MR. SYMMONS

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. 100 and two other courses in sociology or permission of the instructor.

SAFETY EDUCATION

Instructor Hilbert.

Courses in Safety Education are offered for teachers desirous of obtaining certification in Safety Education. Undergraduates will receive no credit for these courses unless they receive approval from the Head of the Education Department and the Dean of Men.

SAFETY 1. DRIVER EDUCATION AND TRAFFIC SAFETY IN THE SECONDARY SCHOOLS—*Three credits*

Driver and pedestrian responsibilities, sound driving practices; society's responsibilities; what makes the automobile go; driver and pedestrian attitudes; city driving; open-road driving; adjusting driving to conditions; road training; bicycle safety; practice driving; practice teaching of driving school patrols; school bus transportation; behind the wheel instruction emphasized.

SAFETY 2. MATERIAL AND METHODS OF TEACHING SAFETY IN THE ELEMENTARY SCHOOLS—*Three credits*

The approach to safety instruction in the elementary schools; integration of safety material with the social studies program; techniques of instruction; consideration of physical arrangements in school buildings and programs from the standpoint of pupil safety; materials which can be obtained or created for safety instruction with young children.

SAFETY 3. MATERIAL AND METHODS OF TEACHING SAFETY IN THE SECONDARY SCHOOLS—*Three credits*

Inspection and testing programs in the secondary schools; broadening of techniques of instruction; practical means of developing the safety attitude; a survey of current materials for use in safety programs. The course will feature a study of testing devices and standard practices in their use, and classroom demonstrations.

SAFETY 4. ORGANIZATION AND ADMINISTRATION IN SAFETY EDUCATION—*Three credits*

A discussion of the problems, procedures, principles and techniques involved in the organization, administration and supervision of accident prevention programs. Designed for college instructors, school administrators, school safety directors, and others interested in, and responsible for, organizing and conducting school and community safety programs.

SAFETY 5. THE PSYCHOLOGY OF ACCIDENT PREVENTION—*Three credits*

Treats one of the major approaches to the solution of the safety problem by means of developing better understanding of human nature and

methods of dealing with it. It may be assumed that man is interested in his own bodily safety; but it must not be assumed that that interest is always active. Ways will be discussed to arouse and develop the interest that lies dormant; or is covered up by bad habits of attention, emotion and maladjustment to life; or is not sufficient to safeguard the individual because he is of low-grade intelligence, lacks knowledge, or has not been properly trained.

SAFETY 6. VISUAL AND OTHER AIDS IN SAFETY EDUCATION—*Three credits*

Discussion and demonstration of practical values in visual and other sensory aids; standards for appraising and their relationship to the curriculum; guiding principles and techniques; minimum equipment and sources; housing and distribution.

The Evening Division

To meet the needs of ambitious men and women who, while employed, desire the help which may come from college instruction, Wilkes College has organized the Evening Division.

A wide program of courses is offered each semester from which selections may be made according to individual tastes and requirements.

The courses offered by the Evening Division are designed for their special value to the following groups:

1. Those employed in business or governmental organizations who desire and need training to fit them for advancement.
2. Men and women who wish to prepare themselves by study and training for work in a new field.
3. Teachers, nurses and those in other professions who desire additional training in one or more subjects in order to meet the professional requirements demanded of them.
4. Business executives who are interested in advanced problems and discussion courses offered in various business fields.
5. Those who wish to prepare for the profession of accounting and aspire through the study of accounting courses to qualify for certification by the Commonwealth of Pennsylvania as Certified Public Accountants.
6. Individuals wishing to broaden their knowledge or to increase their skill in certain fields for their personal satisfaction and improvement.

All students who register for evening courses are classed as special students. Upon such a student's completion of thirty semester hours, his high school transcript and his record as a special student will be evaluated at his request, and he may then be registered as a degree candidate. No student, however, may expect to count toward an undergraduate degree more than thirty credits earned as a special student.

Students who do not seek a degree are admitted to all classes which they are qualified to take by reason of their maturity, previous education, and experience. Although it is advisable, when possible, for each student registering to have first completed his high school course, the lack of part or all high school training does not debar an applicant from the advantages of the practical training of the College, provided he is qualified to follow special courses of instruction in which he wishes to register.

No student who has been advised to withdraw from the College's day school program for academic failure will be permitted to register for evening school, nor will such student receive credit for subsequent work done in evening school. Any exception to this regulation must be approved by the Deans.

Whenever a student's record of achievement indicates that he is not obtaining sufficient benefit to justify continued study, the College may request that he withdraw from the Evening Division.

MANAGEMENT TRAINING PROGRAM

To fill a need in the community, Wilkes College offers a program for the development of managerial skills among foremen and others who aspire to become part of the management group.

The needs of each company are analyzed and, in consultation with officials, foremen and others in the company, a program is arranged to meet the general and specific requirements of the personnel in the company. The program is arranged in periods of 16 weeks in which the participants meet once a week at the College during the day or evening for a two hour session.

Special Community Lecture Series

As a community college, Wilkes feels obligated to provide opportunities for adults to continue their education. It therefore offers, in the Evening Division, an introductory program in adult education, from which it believes positive good will result.

Community members who register for one of the lecture courses in the series meet one evening a week throughout the ten or fifteen weeks the course is in session. They do not receive regular college credit.

Given each semester, the lectures cost considerably less than the regular undergraduate courses at the College.

The present program includes series in current events and art for business and professional persons.

Further information concerning the program may be secured from the Director of Admissions.

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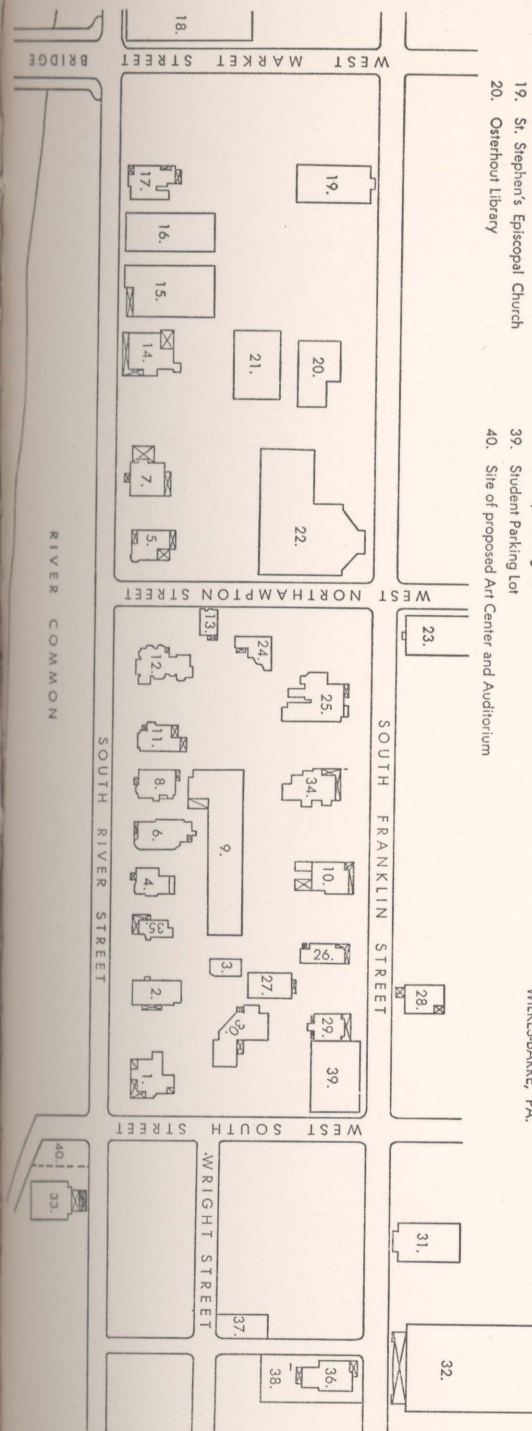
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31. Ohav Zedek
32. Gymnasium
33. Temple Israel
34. Harding Hall
35. Warner Hall
36. Obadiah Gore Hall
37. Student Parking Lot
38. Faculty Parking Lot
39. Student Parking Lot
40. Site of proposed Art Center and Auditorium

WILKES COLLEGE
AREA

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