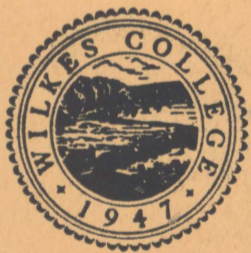


WILKES  
COLLEGE  
*Bulletin*

1956 — 1957



WILKES-BARRE

PENNSYLVANIA

# WILKES COLLEGE *Bulletin*

1956-1957

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FALL AND SPRING  
SEMESTERS — 1956-57

Vol. V

For Changes in Tuition and  
Dormitory Fees  
See Page 148a (*bottom*)

*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, 1956

Mon., June 11 to Sat., June 16.. Summer School registration  
 Mon., June 18..... Classes begin  
 Wed., July 4..... Independence Day observance  
 Fri., August 10..... Summer School ends

## FALL, 1956

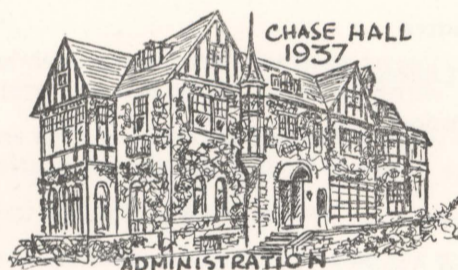
Tues., Sept. 11 to Sun., Sept. 16.. Freshmen orientation  
 Wed., Sept. 12..... Freshmen registration  
 Thurs., Sept. 13..... Upperclassmen registration  
 Mon., Sept. 17..... Classes begin at 8:00 A.M.  
 Sat., Oct. 13..... Homecoming—Ursinus  
 Sun., Oct. 14..... Reception—parents of Freshmen  
 Sat., Oct. 27..... Final date to remove incompletes  
 Wed., Oct. 31..... Mid-Semester report  
 Mon., Nov. 5 to Fri., Nov. 9... Registration  
 Wed., Nov. 21..... Thanksgiving recess begins at noon  
 Mon., Nov. 26..... Thanksgiving recess ends at 8:00 A.M.  
 Wed., Dec. 19..... Christmas recess begins at 5:00 P.M.  
 Thurs., Jan. 3..... Christmas recess ends at 8:00 A.M.  
 Sat., Jan. 12..... Classes end  
 Mon., Jan. 14 to Tues., Jan. 22.. Examination period

## SPRING, 1957

Thurs., Jan. 24..... Winter Carnival  
 Fri., Jan. 25..... All-college registration  
 Mon., Jan. 28..... Classes begin at 8:00 A.M.  
 Sat., Mar. 9..... Final date to remove incompletes  
 Wed., Mar. 13..... Mid-Semester report  
 Mon., Mar. 18 to Fri., Mar. 22.. Registration  
 Tues., Apr. 16..... Easter recess begins at 5:00 P.M.  
 Tues., Apr. 23..... Easter recess ends at 8:00 A.M.  
 Sun., May 12..... Parents Day  
 Sat., May 18..... Classes end  
 Mon., May 20 to Tues., May 28.. Examination period  
 Sun., June 2..... Baccalaureate  
 Mon., June 3..... Commencement

## SUMMER, 1957

Mon., June 10 to Sat., June 15.. Summer School registration  
 Mon., June 17..... Classes begin  
 Thurs., July 4..... Independence Day observance  
 Fri., August 2..... Summer School ends



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B.S. (Washington and Lee)

†On leave of absence 1955-1956

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1955-1956

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THOMAS R. RICHARDS  
HAROLD W. THATCHER  
NADA VUJICA  
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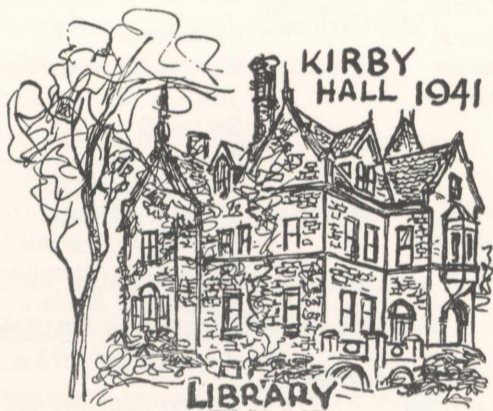
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## A History of the College

**T**O 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.

Generous monetary gifts have enabled Wilkes to adapt its acquisitions and equip them completely. In the fourteen years following the promise of autonomy by Bucknell University, assets have been increased by more than \$2,600,000.

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### General Information

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## CURRICULA

The College offers courses 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 courses 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.

## GRADES

Grades will be given to students in the middle and at the end of each term. The mid-term grade is given to show student and faculty the quality of work being done; the final grade indicates the accomplishment of the student in the whole course.

The grading system is as follows:

- A—Excellent
- B—Above average
- C—Average
- D—Below average, but passing
- F—Failure

Inc—Incomplete—*work must be made up by the end of the sixth week of the following semester or the grade will automatically become an F.*

WP—Withdrew Passing — given to students who, at the time of withdrawal, are passing the course.

WF—Withdrew Failing — given to students who, at the time of withdrawal, are failing the course.

The student's academic standing is determined by the quantity and quality of his work. The quantity is shown by the number of *credit hours* of work performed during the term. The number of credit hours applicable to each course is printed in italics following the title of the course in the catalogue. The quality of work is shown by the student's *point average*, which is determined in the following manner:

The letter grades are given numerical values, called *point values*, as follows: A, 3 points; B, 2 points; C, 1 point; D and F, no points. A student with a certain grade earns the point value of the grade for *each credit hour of the course*. Thus, if his grade is "A" in a three-hour course, he will gain 9 points; if "B" in a four-hour course, he

will gain 8 points. His *point average* will be computed by dividing the total number of points gained in all his courses by the total number of credit hours. The following sample record will illustrate more fully the method:

Subject	Credit Hours	Grade in Course	Number of Points
English .....	3	C	3
History .....	3	A	9
Mathematics .....	5	B	10
Philosophy .....	3	D	0
Chemistry .....	4	C	4
Total .....	18		26

*Point Average* — 26 divided by 18 — 1.4

For advancement from class to class and for graduation, there are minimum requirements as to quantity and quality of work. These requirements are shown in the following table:

#### REQUIREMENTS FOR ADVANCEMENT AND GRADUATION

At the End of the	Number of Credit Hours	Number of Points	Point Average
Freshman Year .....	30	15	.5
Sophomore Year .....	60	42	.7
Junior Year .....	90	81	.9
Senior Year .....	As specified		1.0

NOTE: This system of credit hours and grades does not apply to courses in physical education. In such courses there will be only two grades, P for passing and F for failure.

#### DEAN'S LIST

The Dean's List published at the end of each term carries the name of every student whose point average is 2.25 or higher.

#### HONORS

The distribution of honors at commencement is based upon the record made by the student during his last two years at the College. Requirements for honors are as follows: for *cum laude*, a point average of 2.35; *magna cum laude*, 2.60; *summa cum laude*, 2.80.

#### 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 single course during the first two weeks without penalty. A student who withdraws from one or more courses after the first two weeks but who continues to attend other courses will receive an "F" unless the administrative council, upon recommendation of the Dean and faculty adviser, allows "WP" or "WF."

A student who withdraws from college after the first two weeks will receive a "WF" or "WP" for each course he has taken, together with a notation from each instructor explaining the reason for his mark.

#### REQUIREMENTS FOR GRADUATION

A candidate for graduation must meet all course requirements as to both quantity and quality of work and must comply with all regulations of the College.

#### 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 \$5.00.

The maximum registration recommended for each course and covered by the tuition charge of \$250 a semester is indicated in the program of courses. No student may carry an overload without the approval of his adviser and the Dean. Any student taking an overload must have earned at least a "B" average during the preceding term. Each hour of work beyond that listed in the catalogue must be paid for at the hourly rate.

#### 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 32,000 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 \$250.00 a semester for tuition, provided the normal load of semester hours as stated in the catalogue for each semester is not exceeded. An additional charge of \$17.00 will be made for each semester hour in excess of the normal load.

The tuition of \$250.00 includes a charge for maintaining student activities.

#### SCHEDULE OF RATES

Charges per semester for students taking a normal load of semester hours as specified in the catalogue for the particular semester and course selected:

Tuition .....	\$250.00
Laboratory fee for biology, chemistry, engineering, physics .....	15.00
Laboratory fee for Secretarial Studies 99, 101, 102, 107, 108, 109, 110, 115, 116.....	10.00
Chemistry Breakage Deposit (any balance refunded).....	10.00
Student Teaching fee.....	20.00

#### 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 voice with Mrs. Hawkins .....	35.00
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.....	34.00
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, students in two-year courses, and for semester hours beyond the normal load prescribed in regular courses:	
Semester hour of study.....	17.00
Laboratory fees (see above).....	10.00, 15.00 & 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.....	17.00
Charges for Summer School (eight weeks)	
Semester hour of study.....	17.00
Laboratory fees (see above).....	10.00, 15.00 & 20.00
Dormitory charges	
Board and Room Per Semester.....	300.00
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 .....	5.00
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 which will be forwarded during the first ten days of the semester.

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, and with as little faculty participation as possible, 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.

Students who are over the age of twenty-two or who have attended another college for at least one term may be excused from the six-week orientation course and from freshman regulations.

#### 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.

**Blue Cross.** A student of the College may avail himself of Blue Cross hospitalization coverage in the Wilkes College Student Group Plan at the special rate of \$1.40 a month (subject to adjustment). An application for this service may be filed with the Comptroller at the time of registration.

**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. Its meeting room is located on the third floor of Hollenback Hall.

### 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.

#### 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, and softball.

#### 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.

## Scholarships and Awards

Scholarships are awarded each year to entering students of outstanding ability and to students of high achievement who require assistance that they may complete their college work.

To retain their scholarships, winners must remain in good scholastic standing, must carry a full schedule of studies, and must conduct themselves in a manner creditable to themselves and to the College.

Scholarships may not be used as an initial payment, but they are accepted for the final balance of each term. A scholarship student who withdraws during the term cancels his scholarship arrangements with the College.

#### 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* are offered to young men and women who have combined leadership in student activities with high scholastic achievement. Students seeking these scholarships must apply for admission a week before the scholarship examinations which are offered by the College on the last Saturday in April.

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

#### *Special Scholarships*

**Amnicola Scholarships.** Each year the editor-in-chief of the yearbook is offered a full-tuition scholarship valued at \$480. Tuition scholarships of \$100 are awarded to the business manager, assistant editor, and picture editor of the publication.

**Beacon Scholarships.** The editor-in-chief of the College newspaper is awarded an annual full-tuition scholarship worth \$480. The business manager, the news editor, and the feature editor are awarded tuition grants of \$100 each.

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

#### SPECIAL SCHOLARSHIPS

**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.

#### 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.



## 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*, *Ammicola*, 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.

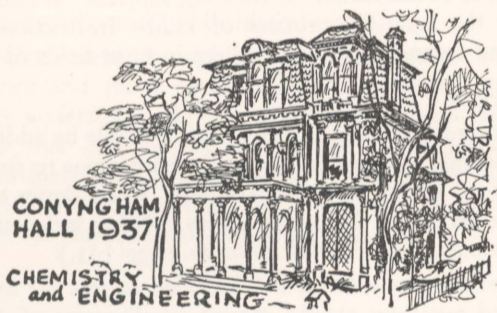
Certification for public-school teaching is usually based on the following requirements: the college degree, specialized courses in education, and a measure of specialization in teaching subjects. Wilkes College is authorized by the State Department of Public Instruction to prepare elementary- and secondary-school 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 141.)

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





## Degree Courses

The basic requirements for degree courses 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 course 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, mathematics or music choose their major when they enter the College.

A major may be taken in any subject listed in the divisions except biology, 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 SEMESTER HOURS  
FOR  
LIBERAL ARTS MAJORS

## HUMANITIES

<i>Major Subject</i>	<i>Major</i>	<i>Humanities</i>	<i>Social Sciences</i>	<i>Sciences</i>	<i>Free Elective</i>
Art .....	36	32	15	6	30
English .....	37	37	15	6	24
Foreign Language ....	24	31	15	6	45
Mathematics .....	29	34	15	14	30
Music .....	47	45	15	6	14
Philosophy-Religion ...	24	37	15	6	38

## SOCIAL SCIENCES

<i>Major Subject</i>	<i>Major</i>	<i>Humanities</i>	<i>Social Sciences</i>	<i>Sciences</i>	<i>Free Elective</i>
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

## SCIENCES

<i>Major Subject</i>	<i>Major</i>	<i>Humanities</i>	<i>Social Sciences</i>	<i>Sciences</i>	<i>Free Elective</i>
Biology .....	31	32	15	31	15
Psychology .....	24	37	15	6	38

## 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 <sup>1</sup>	Bio 100	3	Composition	Eng 102	3
Composition	Eng 101	3	Fundamentals of Speech	Eng 131	2
Foreign Language <sup>2</sup>	101 or 103	3	Foreign Language <sup>2</sup>	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 <sup>1</sup>	Phys 100	
Phys. Ed. and Hygiene	P.E. 101	1	Phys. Ed. and Hygiene	P.E. 102	1
Pers. Hyg.	P.E. 105	1	Pers. Hyg.	P.E. 106	1
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 <sup>2</sup>	103 or 200	3	Foreign Language <sup>2</sup>	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 <sup>3</sup>	Phil 101		Intro. to Philosophy <sup>3</sup>	Phil 101	
Alternates: <sup>4</sup>			Alternates: <sup>4</sup>		
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	American Federal Govt.	P.S. 101	6
General Psychology	Psy 100		General Psychology	Psy 100	
Intro. to Sociology	Soc 100	1	Elective		1
Elective			Physical Education	P.E. 104	
Physical Education	P.E. 103	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	

<sup>1</sup> Students may substitute a laboratory course in science for Bio. 100 or Phys. 100.

<sup>2</sup> The level of the course will depend upon the achievement of the student.

<sup>3</sup> Philosophy is required in either the third or fourth semester.

<sup>4</sup> 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. and Hygiene	P.E. 101	1	Phys. Ed. and Hygiene	P.E. 102	1
Pers. Hyg.	P.E. 105	1	Pers. Hyg.	P.E. 106	1
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 <sup>1</sup>	103 or 200	3	Foreign Language <sup>1</sup>	104 or 200	3
Electives in Humanities		3	Electives in Humanities		3
Social Science or Psy.		3	Social Science or Psy.		3
Physical Education	P.E. 103	1	Physical Education	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		Advertising Design or	Art 212	
Fine Art	Art 215		Fine Art	Art 216	
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		2			
18			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		Adv. Advanced Design or	Art 214	
Fine Art	Art 217		Fine Art	Art 218	
Electives		9	Electives		9
Studio III		3	Studio IV		3
15			15		

<sup>1</sup> 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 Qualitative Anal.	Chem 102	6
Composition	Eng 101	3	Composition	Eng 102	3
College Algebra	Math 107	3	Trigonometry	Math 109	3
Phys. Ed. and Hygiene	P.E. 101	1	Phys. Ed. and Hygiene	P.E. 102	1
Pers. Hyg.	P.E. 105	1	Pers. Hyg.	P.E. 106	1
17			18		

## SOPHOMORE YEAR

Third Semester			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.
Comparative Anatomy of the Vertebrates	Bio 201	4	Embryology	Bio 202	4
Inorganic Quantitative Anal.	Chem 121	4	Organic Chem.	Chem 230	4
World Literature	Eng 151	4	World Literature	Eng 152	4
Hist. of W. Civilization	Hist 101	3	Hist. of W. Civilization	Hist 102	3
Physical Education	P.E. 103	1	Physical Education	P.E. 104	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 <sup>1</sup>	102 or 104	3
Foreign Language <sup>1</sup>	101 or 103	3	Introductory Physics	Phys 112	4
Introductory Physics	Phys 111	4	American Government	P.S. 100	3
			Intro. to Sociology	Soc 100	3
15			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 242	1
Introduction to Economics	Ec 100	3	Foreign Language <sup>1</sup>	104 or 200	3
Foreign Language <sup>1</sup>	103 or 200	3	Electives <sup>2</sup>		9-10
Electives <sup>2</sup>		6-7			
16-17			16-17		

<sup>1</sup> The level of the course will depend upon the achievement of the student.

<sup>2</sup> One elective is to be selected from the humanities or social sciences. Botany or Bacteriology electives may be chosen in senior year.

## BACHELOR OF ARTS

## Major in Mathematics

## FRESHMAN YEAR

First Semester			Second Semester		
Title	Number	Cr.	Title	Number	Cr.
Biological Science	Bio 100	3	Composition	Eng 102	3
Composition	Eng 101	3	Fundamentals of Speech	Eng 131	2
Foreign Language <sup>1</sup>	101 or 103	3	Foreign Language <sup>1</sup>	102 or 104	3
Algebra and Trig.	Math 105	5	Analytic Geometry	Math 122	4
Phys. Ed. and Hygiene	P.E. 101	1	Elective		3
Pers. Hyg.	P.E. 105	1	Phys. Ed. and Hygiene	P.E. 102	1
			Pers. Hyg.	P.E. 106	1
16			17		

## SOPHOMORE YEAR

Third Semester			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.
Intro. to Economics	Ec 100	3	World Literature	Eng 152	4
Principles of Economics	Ec 101	3	Foreign Language <sup>1</sup>	104 or 200	3
World Literature	Eng 151	4	Calculus II	Math 126	4
Foreign Language <sup>1</sup>	103 or 200	3	General Physics (I)	Phys 150	4
Calculus I	Math 125	4	Physical Education	P.E. 104	1
General Psychology	Psy 100	3			
Physical Education	P.E. 103	1			
18			16		

## JUNIOR YEAR

Fifth Semester			Sixth Semester		
Title	Number	Cr.	Title	Number	Cr.
History of W. Civilization	Hist 101	3	History of W. Civilization	Hist 102	3
Mathematics Elective <sup>2</sup>		3	Mathematics Elective		3
General Physics (II)	Phys 151	4	Intro. to Philosophy	Phil 101	3
Intro. to Sociology	Soc 100	3	Amer. Federal Govt.	P.S. 101	3
Elective		3-6	Elective		3-4
16-19			15-16		

## SENIOR YEAR

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

<sup>1</sup> The level of the course will depend upon the achievement of the student.

<sup>2</sup> Mathematics 100, 101, 102, 115, 118 will not count toward a major.

## BACHELOR OF ARTS

## Major in Music

## FRESHMAN YEAR

First Semester			Second Semester		
Title	Number	Cr.	Title	Number	Cr.
Biological Science.....	Bio 100	3	Composition.....	Eng 102	3
Composition.....	Eng 101	3	Foreign Language.....		3
Foreign Language.....		3	Music Theory.....	Mus 102	5
Music Theory.....	Mus 101	5	Applied Music <sup>1</sup> .....		1
Applied Music <sup>1</sup> .....		1	Physical Science.....	Phys 100	3
Phys. Ed. and Hygiene.....	P.E. 101	1	Phys. Ed. and Hygiene.....	P.E. 102	1
Pers. Hyg.....	P.E. 105	1	Pers. Hyg.....	P.E. 106	1
		17			17

## 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 <sup>1</sup> .....		1	Applied Music <sup>1</sup> .....		1
Electives in Humanities, Soc. Science or Psych.....		6	Electives in Humanities, Soc. Science or Psych.....		6
Physical Education.....	P.E. 103	1	Physical Education.....	P.E. 104	1
		16			16

## JUNIOR YEAR

Fifth Semester			Sixth Semester		
Title	Number	Cr.	Title	Number	Cr.
Fundamentals of Speech.....	Eng 131	2	World Literature.....	Eng 152	4
World Literature.....	Eng 151	4	Hist. of W. Civilization.....	Hist 102	3
Hist. of W. Civilization.....	Hist 101	3	History of Music.....	Mus 110	3
History of Music.....	Mus 109	3	Applied Music.....		2
Applied Music <sup>1</sup> .....		2	Electives in Humanities, Soc. Science or Psych.....		3
Electives in Humanities, Soc. Science or Psych.....		3			15
		17			15

## SENIOR YEAR

Seventh Semester			Eighth Semester		
Title	Number	Cr.	Title	Number	Cr.
Applied Music <sup>1</sup> .....		2	Applied Music <sup>1</sup> .....		2
Instrumentation.....	Mus 215	2	Orchestration.....	Mus 216	2
Analysis.....	Mus 217	2	Counterpoint.....	Mus 218	3
Electives.....		9	Electives.....		9
		15			16

<sup>1</sup> 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.

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
Basic Drawing.....	Engi 101	2	Analytic Geometry.....	Math 122	4
Algebra and Trig.....	Math 105	5	General Physics (I).....	Phys 150	4
Basic Physical Problems.....	Phys 101	1	Phys. Ed. and Hygiene.....	P.E. 102	1
Phys. Ed. and Hygiene.....	P.E. 101	1	Pers. Hyg.....	P.E. 106	1
Pers. Hyg.....	P.E. 105	1			19
		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
Differential Calculus.....	Math 125	4	Integral Calculus.....	Math 126	4
General Physics (II).....	Phys 151	4	General Physics (III).....	Phys 152	4
Physical Education.....	P.E. 103	1	Elective (optional).....		0-3
		16	Physical Education.....	P.E. 104	1
		16			16-19

Fifth Semester			Sixth Semester		
Title	Number	Cr.	Title	Number	Cr.
Organic Chemistry.....	Chem 231	5	Inor. Quantitative Analysis.....	Chem 122	5
Physical Chemistry.....	Chem 241	4	Physical Chemistry.....	Chem 242	4
Foreign Language <sup>1</sup> .....	101 or 103	3	Foreign Language <sup>1</sup> .....	102 or 104	3
Elec. Measurements.....	Phys 251	3	Stoichiometry.....	Chem 106	3
Elective.....		3	Elective.....		3
		18			18

Seventh Semester			Eighth Semester		
Title	Number	Cr.	Title	Number	Cr.
Qualitative Organ. Anal.....	Chem 233	3	Chemical Literature.....	Chem 262	1
History of Chemistry.....	Chem 261	1	Foreign Language <sup>1</sup> .....		3
Foreign Language <sup>1</sup> .....		3	Chemistry Elective.....		3
Electives.....		11	Electives.....		11
		18			18

<sup>1</sup> 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: English 131, 151, 152; Philosophy 101, 102; Music 100; Religion 101; Mathematics 240. *Social Sciences and Psychology*: Nine to fifteen credits are to be chosen from the following: Sociology 100, 107, 205; Political Science 100, 101, 203; Economics 101, 102; History 107, 108; Education 101, 201, 207; Psychology 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 was greatly emphasized by the many new problems which needed solution during the recent conflict. 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.

FRESHMAN YEAR

First Semester			Second Semester		
Title	Number	Cr.	Title	Number	Cr.
General Inorganic Chem.....	Chem 101	4	General Inorganic Chem.....	Chem 104	6
Engineering Problems.....	Engi 100	2	Elementary German <sup>1</sup> .....	Ger 102	3
Composition.....	Eng 101	3	Analytic Geometry.....	Math 122	4
Elementary German <sup>1</sup> .....	Ger 101	3	General Physics.....	Phys 150	4
Algebra and Trig.....	Math 105	5	Phys. Ed. and Hygiene.....	P.E. 102	1
Phys. Ed. and Hygiene.....	P.E. 101	1	Pers. Hyg.....	P.E. 106	1
Pers. Hyg.....	P.E. 105	1			
		19			19

SOPHOMORE YEAR

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	Calculus II.....	Math 126	4
Calculus I.....	Math 125	4	Mechanics I, Statics.....	M.E. 211	3-6
General Physics.....	Phys 151	4	Mechanics II, Dynamics.....	M.E. 212	4
Physical Education.....	P.E. 101	1	General Physics.....	Phys 152	4
		18	Physical Education.....	P.E. 104	1
					17-20

<sup>1</sup> Intermediate or scientific German may be substituted when the student is qualified.

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, Retail Merchandising; Group IV, Secretarial Studies.

GROUP REQUIREMENTS

Subjects	Group I	Group II	Group III	Group IV
	Accounting	Business Administration	Retail Merchandising	Secretarial Studies
	Cr.	Cr.	Cr.	Cr.
Major .....	30	24-39	24	23
Commerce and Finance <sup>1</sup> .....	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 ..	4	4	4	4
Total .....	131	131	131	129-130

<sup>1</sup> Does not include major courses.

BACHELOR OF SCIENCE IN COMMERCE AND FINANCE

Major in Accounting<sup>1</sup>

FRESHMAN YEAR<sup>2</sup>

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	Amer. Federal Govt.....P.S.	101	3
Hist. of W. Civilization.....Hist	101	3	Physical Science.....Phys	100	3
Phys. Ed. and Hygiene.....P.E.	101	1	Phys. Ed. and Hygiene.....P.E.	102	1
Pers. Hyg.....P.E.	105	1	Pers. Hyg.....P.E.	106	1
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
Physical Education.....P.E.	103	1	Mathematics of Finance.....Math	115	3
			Physical Education.....P.E.	104	1
17			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
Fundamentals of Speech.....Eng	131	2	Alternates:		
Intro. to Sociology.....Soc	100	3	Theory of Money.....Ec	202	3
			Public Finance.....Ec	236	3
			Economic Geography.....Ec	226	3
			Economic Statistics.....Ec	232	3
17			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	Intro. to Music.....Mus	100	3
Bus. Cor. and Reports.....B.A.	209	3	Intro. to Philosophy.....Phil	101	3
Corporation Finance.....B.A.	225	3	History of Religions.....Rel	101	3
Free Elective <sup>3</sup> .....		3	Free Electives <sup>3</sup> .....		6
15			15		

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

<sup>2</sup> It is suggested that all students take Personal Use Typewriting (S.S. 99) during one semester of the freshman year.

<sup>3</sup> 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 YEAR<sup>1</sup>

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	Amer. Federal Govt.....P.S.	101	3
Hist. of W. Civilization.....Hist	101	3	Physical Science.....Phys	100	3
Phys. Ed. and Hygiene.....P.E.	101	1	Phys. Ed. and Hygiene.....P.E.	102	1
Pers. Hyg.....P.E.	105	1	Pers. Hyg.....P.E.	106	1
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
Physical Education.....P.E.	103	1	Mathematics of Finance.....Math	115	3
			Intro. to Statistics.....Math	118	3
			Intro. to Music.....Mus	100	3
			Physical Education.....P.E.	104	1
16			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.....		3
Free Electives.....		6	Economic Statistics.....Ec	232	3
			Alternates:		
			Intro. to Philosophy.....Phil	101	3
			History of Religions.....Rel	101	3
			Bus. Adm. or Ec. Elective <sup>2</sup> ...		3
			Free Elective.....		3
18			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 <sup>2</sup> ..		12
Bus. Adm. and Ec. Electives..		12	Free Elective.....		3
Free Elective.....		3			
18			15		

<sup>1</sup> See note 2, page 58.

<sup>2</sup> See page 60.

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

BANKING AND FINANCE<sup>1</sup>

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		

ECONOMICS<sup>1</sup>

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 RELATIONS<sup>1</sup>

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		
Office Management.....	B.A. 238		
Sales Management.....	B.A. 239		
Property Insurance.....	B.A. 240		

MARKETING<sup>1</sup>

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.....	R.M. 101

<sup>1</sup> At least six courses in this group are required of students concentrating in this field.

## BACHELOR OF SCIENCE IN COMMERCE AND FINANCE

## Major in Retail Merchandising

FRESHMAN YEAR<sup>1</sup>

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	Amer. Federal Govt.....	P.S. 101	3
Pers. Hyg.....	P.E. 105	1	Phys. Ed. and Hygiene.....	P.E. 102	1
Phys. Ed. and Hygiene.....	P.E. 101	1	Pers. Hyg.....	P.E. 106	1
		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 Retail Merchandising.....		3	Elective in Retail Merchandising.....		3
Physical Education.....	P.E. 103	1	Physical Education.....	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 R.M. or Com. & Fin.....		9	History of Religions.....	Rel 101	
		17	Electives in R.M. or Com. & Fin.....		9
			Free Elective.....		3
					18

## SENIOR YEAR

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

<sup>1</sup> See note 2, page 58.



## 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. or W. Civilization.....	Hist 101	3	Hist. of W. Civilization.....	Hist 102	3
Fundamentals of Math.....	Math 101	3	Fundamentals of Math.....	Math 102	3
Shorthand and Typewriting.....	S.S. 101	4	Shorthand and Typewriting.....	S.S. 102	4
Phys. Ed. and Hygiene.....	P.E. 101	1	Phys. Ed. and Hygiene.....	P.E. 102	1
Pers. Hyg.....	P.E. 105	1	Pers. Hyg.....	P.E. 106	1
		18			18

## SOPHOMORE YEAR

Third Semester			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.
Elementary Accounting.....	Acct 101	3	Principles of Accounting.....	Acct 102	3
Advanced Exposition.....	Eng 105	3	American Government.....	P.S. 100	3
Fundamentals of Speech.....	Eng 131	2	Physical Science.....	Phys 100	3
Intro. to Music.....	Mus 100	3	Advanced Stenography.....	S.S. 110	4
Advanced Stenography.....	S.S. 109	4	Free Elective.....		3
Physical Education.....	P.E. 103	1	Physical Education.....	P.E. 104	1
		16			17

## JUNIOR YEAR

Fifth Semester			Sixth Semester		
Title	Number	Cr.	Title	Number	Cr.
Principles of Economics.....	Ec 101	3	Principles of Economics.....	Ec 102	3
World Literature.....	Eng 151	4	World Literature.....	Eng 152	4
Alternates:			Free Electives.....		9
Medical Stenography.....	S.S. 210	3			
Speech Reporting.....	S.S. 203				
Electives.....		6			
		16			16

## 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. & Office Mach.....	S.S. 205	4	Free Electives.....		12
Free Electives.....		8-9			
		15-16			15

## BACHELOR OF SCIENCE IN SECONDARY EDUCATION

The program outlined below is designed to prepare students for certification in most states. Students are expected to familiarize themselves with specific state requirements.

## REQUIREMENTS FOR CERTIFICATION IN PENNSYLVANIA

## General

The four courses listed below are required of all prospective teachers:  
 Introduction to Education..... 3 semester hours  
 Educational Psychology..... 3 semester hours  
 Student Teaching..... 8 semester hours  
 United States and Pennsylvania History

## FRESHMAN YEAR

First Semester			Second Semester		
Title	Number	Cr.	Title	Number	Cr.
Composition.....	Eng 101	3	Composition.....	Eng 102	3
Science Elective <sup>1</sup> .....	3-5		Science <sup>1</sup> .....		3-6
Mathematics Elective <sup>1</sup> .....	3-5		Intro. to Sociology.....	Soc 100	3
American Government.....	P.S. 101	3	Elective <sup>1</sup> .....		3-6
Elective <sup>1</sup> .....	0-3		Phys. Ed. and Hygiene.....	P.E. 102	1
Phys. Ed. and Hygiene.....	P.E. 101	1	Pers. Hyg.....	P.E. 106	1
Pers. Hyg.....	P.E. 105	1			
		16-19			14-20

## SOPHOMORE YEAR

Third Semester			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.
Intro. to Education.....	Ed 101	3	Intro. to Economics.....	Ec 100	3
Fundamentals of Speech.....	Eng 131	2	World Literature.....	Eng 152	4
World Literature.....	Eng 151	4	General Psychology.....	Psy 100	3
Electives.....		6	Electives.....		5-6
Physical Education.....	P.E. 103	1	Physical Education.....	P.E. 104	1
		16			16-17

## 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.-Pa. History to 1865.....	Hist 107	3	Child Psychology.....	Psy 207	3
Electives.....		9	Electives.....		9
		15			15

## SENIOR YEAR

Seventh Semester			Eighth Semester		
Title	Number	Cr.	Title	Number	Cr.
Intro. to Philosophy.....	Phil 101	3	Principles & Methods of		
Electives.....		12	Sec. Ed.....	Ed 204	3
			Sec. School Curriculum.....	Ed 205	3
			Practice Teaching.....	Ed 207	8
			Visual Education.....	Ed 212	1
		15			15

<sup>1</sup> Electives shall be selected or omitted so that the total number of hours shall not exceed the maximum number of credits allowed for each term.

BACHELOR OF SCIENCE IN ELEMENTARY EDUCATION

First Semester			FRESHMAN YEAR			Second Semester		
Title	Number	Cr.	Title	Number	Cr.	Title	Number	Cr.
Composition.....	Eng	101	3	Biological Science.....	Bio	100	3	
Hist. of W. Civilization.....	Hist	101	3	Composition.....	Eng	102	3	
Physical Science.....	Phy	100	3	Hist. of W. Civilization.....	Hist	102	3	
American Government.....	P.S.	101	3	Intro. to Sociology.....	Soc	100	3	
Elective.....			3	Elective.....			3	
Phys. Ed. and Hygiene.....	P.E.	101	1	Phys. Ed. and Hygiene.....	P.E.	102	1	
Pers. Hyg.....	P.E.	105	1	Pers. Hyg.....	P.E.	106	1	
			17				17	

Third Semester			SOPHOMORE YEAR			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.	Title	Number	Cr.
Intro. to Economics.....	Ec	100	3	World Literature.....	Eng	152	4	
Intro. to Education.....	Ed	101	3	Intro. to Music.....	Mus	100	3	
Fundamentals of Speech.....	Eng	131	2	Intro. to Philosophy.....	Phil	101	3	
World Literature.....	Eng	151	4	General Psychology.....	Psy	100	3	
Elective.....			3	Elective.....			2-3	
Physical Education.....	P.E.	103	1	Physical Education.....	P.E.	104	1	
			16				16-17	

Fifth Semester			JUNIOR YEAR			Sixth Semester		
Title	Number	Cr.	Title	Number	Cr.	Title	Number	Cr.
Educational Psychology.....	Ed	201	3	U.S. History since 1865.....	Hist	108	3	
U.S.-Pa. History to 1865.....	Hist	107	3	Child Psychology.....	Psy	207	3	
Electives.....			9	Electives.....			9	
			15				15	

Seventh Semester			SENIOR YEAR			Eighth Semester		
Title	Number	Cr.	Title	Number	Cr.	Title	Number	Cr.
Practice Teaching.....	Ed	208	6	Practice Teaching.....	Ed	208	6	
Elementary Curriculum.....	Ed	238	3	Visual Education.....	Ed	212	1	
Art in the Elem. Sch.....	Ed	241	2	Teaching of Arith.....	Ed	232	2	
Music in the Elem. Sch.....	Ed	242	2	Teaching of Lang. Arts.....	Ed	234	2	
Health and P.E. in the E.S.....	Ed	243	2	Principles of Elem. Ed.....	Ed	237	2	
			15	Teaching of El. Sch. Sci.....	Ed	239	2	
							15	

REQUIREMENTS FOR CERTIFICATION IN PENNSYLVANIA

Elementary

In addition to the general requirements, a minimum of twenty-two semester hours in elementary education is required to prepare teachers in the following fields of instruction:

- |                       |  |
|-----------------------|--|
| English               | Humane Treatment of Birds and Animals    |
| Spelling              | Safety Education                         |
| Reading               | Health-Physical Education and Physiology |
| Writing               | Music                                    |
| Arithmetic            | Art                                      |
| Geography             |  |
| U. S. and Pa. History |  |
| Civics                |  |

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 course 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.

First Semester			FRESHMAN YEAR			Second Semester		
Title	Number	Cr.	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	or				
Hist. of W. Civilization.....	Hist	101	3	Basic Art.....	Art	101	3	
Phys. Ed. and Hygiene.....	P.E.	101	1	Physical Science.....	Phys	100	3	
Pers. Hyg.....	P.E.	105	1	Intro. to Sociology.....	Soc	100	3	
			17	or				
				American Government.....	P.S.	100	3	
				Phys. Ed. and Hygiene.....	P.E.	102	1	
				Pers. Hyg.....	P.E.	106	1	
							17	

Third Semester			SOPHOMORE YEAR			Fourth Semester		
Title	Number	Cr.	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	
U.S.-Pa. History to 1865.....	Hist	107	3	Intro. to Education.....	Educ	101	3	
General Psychology.....	Psy	100	3	U. S. Hist. since 1865.....	Hist	108	3	
Shorthand and Typewriting.....	S.S.	101	4	Shorthand and Typewriting.....	S.S.	102	4	
or Elective				or Elective				
Physical Education.....	P.E.	103	1	Physical Education.....	P.E.	104	1	
			17				17	

Fifth Semester			JUNIOR YEAR			Sixth Semester		
Title	Number	Cr.	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.....	Educ	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	Education . . . . .	Educ 212	1
Bus. Education and Methods of Instruction in S.S. . . . .	S.S. 243	3	Sec. School Curriculum . . . . .	Educ 205	3
Intro. to Philosophy . . . . .	Phil 101	3	Student Teaching . . . . .	Educ 207	8
Office Procedures and Machines . . . . .	S.S. 205	4	Elective . . . . .		2
or Elective					
Elective . . . . .		3			
		<u>16</u>			<u>14</u>

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	5
Music Theory . . . . .	Mus 101	5	Clarinet Class and Band	Mus	2
Clarinet Class and Band	Mus	2	Methods or . . . . .	Ed 102	
Methods or . . . . .	Ed 101		Brass Class and Band	Mus	2
Brass Class and Band	Mus	Methods . . . . .	Ed 104		
Methods . . . . .	Ed 103				
	App		Major Instrument . . . . .	Mus	1
Major Instrument . . . . .	Mus	1	Band, Orchestra, Chorus . . . . .		1/2
Band, Orchestra, Chorus . . . . .		1/2	Physical Science . . . . .	Phys 100	3
Elective . . . . .		3	Elective . . . . .		3
Phys. Ed. and Hygiene . . . . .	P.E. 101	1	Phys. Ed. and Hygiene . . . . .	P.E. 102	1
Pers. Hyg. . . . .	P.E. 105	1	Pers. Hyg. . . . .	P.E.	1
		<u>18 1/2</u>			<u>19 1/2</u>

SOPHOMORE YEAR

Third Semester			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.
World Literature . . . . .	Eng 151	4	Intro. to Education . . . . .	Ed 101	3
Music Theory . . . . .	Mus 103	5	World Literature . . . . .	Eng 152	4
Music History . . . . .	Mus 109	3	Music Theory . . . . .	Mus 104	5
	App		Music History . . . . .	Mus 110	3
Major Instrument . . . . .	Mus	1			
Band, Orchestra, Chorus . . . . .		1/2	Major Instrument . . . . .	Mus	1
General Psychology . . . . .	Psy 100	3	Band, Orchestra, Chorus . . . . .		1/2
Physical Education . . . . .	P.E. 103	1	Physical Education . . . . .	P.E. 104	1
		<u>17 1/2</u>			<u>17 1/2</u>

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		Brass Class Methods . . . . .	Ed 106	2
Woodwind Class Methods . . . . .	Ed 105	2			
	Mus		Conducting (Choral) . . . . .	Ed 110	2
Conducting (Instrumental) . . . . .	Ed 109	2			
	Mus		Violin Class and Methods . . . . .	Ed 112	2
Violin Class and Methods . . . . .	Ed 111	2			
	App		Major Instrument . . . . .	Mus	1
Major Instrument . . . . .	Mus	1	Band, Orchestra, Chorus . . . . .		1/2
Band, Orchestra, Chorus . . . . .		1/2	Elective . . . . .		6
Elective . . . . .		3			
		<u>16 1/2</u>			<u>16 1/2</u>

## SENIOR YEAR

Seventh Semester			Eighth Semester		
Title	Number	Cr.	Title	Number	Cr.
Principles of Secondary Education or Principles of Elementary Education	Ed 204	3	Visual Education	Ed 212	1
Instrumentation	Mus 215		Orchestration	Mus 216	2
Voice Class and Methods	Mus 107		String Instrument Class and Methods	Mus 108	2
String Instrument Class and Methods	Ed 113	2	Observation and Practice Teaching	Mus 204	4
Observation and Practice Teaching	Mus 203	4	Major Instrument Band, Orchestra, Chorus	Mus	1
Major Instrument Band, Orchestra, Chorus	App 1	1/2	Elective		3
		14 1/2			15 1/2

## BACHELOR OF SCIENCE IN NURSING EDUCATION

The course 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.<sup>1</sup> 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.

## 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.

## JUNIOR YEAR

First Semester			Second Semester		
Title	Number	Cr.	Title	Number	Cr.
Composition	Eng 101	3	Biological Science	Bio 100	3
Amer. and Penna. History to 1865	Hist 107	3	Educational Psychology	Ed 201	3
Foundations of Nursing	N.E. 101	2	Composition	Eng 102	3
Physical Science	Phys 100	3	American History since 1865	Hist 108	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

<sup>1</sup> For exception see page 44.

## 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 <sup>2</sup>	6-7		Electives <sup>2</sup>		5-6
	15-16			15-16	

## 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.

<sup>2</sup> Electives may be selected from academic subjects (Economics, Political Science, Psychology, Sociology) or Nursing Education courses with approval of the adviser.

FRESHMAN YEAR  
(COMMON TO ALL ENGINEERING COURSES)

First Semester			Second Semester		
Title	Number	Cr.	Title	Number	Cr.
General Inorganic Chem.....	Chem 101	4	Alternates: <sup>1</sup>		
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
Algebra and Trig.....	Math 105	5	Composition.....	Eng 102	3
Phys. Ed. and Hygiene.....	P.E. 101	1	Analytic Geometry.....	Math 122	4
Pers. Hyg.....	P.E. 105	1	General Physics (Mech.).....	Phys 150	4
			Phys. Ed. and Hygiene.....	P.E. 102	1
			Pers. Hyg.....	P.E. 106	1
		19			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 YEAR<sup>2</sup>

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	Calculus II.....	Math 126	4
Fundamentals of Speech.....	Eng 134	3	Mechanics I, Statics.....	M.E. 211	3
Calculus I.....	Math 125	4	Mechanics II, Dynamics.....	M.E. 212	3
General Physics.....	Phys 151	4	General Physics.....	Phys 152	4
Physical Education.....	P.E. 103	1	Physical Education.....	P.E. 104	1
		19			18

<sup>1</sup> Chemical engineers will register for Chemistry 102 (six hours). All other engineering students will register for Chemistry 104 (four hours).

<sup>2</sup> 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 YEAR<sup>1</sup>

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	Calculus II.....	Math 126	4
Fundamentals of Speech.....	Eng 134	3	Mechanics I, Statics.....	M.E. 211	3
Calculus I.....	Math 125	4	Mechanics II, Dynamics.....	M.E. 212	3
General Physics.....	Phys 151	4	General Physics.....	Phys 152	4
Physical Education.....	P.E. 103	1	Physical Education.....	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 YEAR<sup>1</sup>

Third Semester			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.
Plane Surveying.....	C.E. 103	3	Calculus II.....	Math 126	4
Intro. to Economics.....	Ec 100	3	Kinematics.....	M.E. 206	4
Fundamentals of Speech.....	Eng 134	3	Mechanics I, Statics.....	M.E. 211	3
Calculus I.....	Math 125	4	Mechanics II, Dynamics.....	M.E. 212	3
General Physics.....	Phys 151	4	General Physics.....	Phys 152	4
Physical Education.....	P.E. 103	1	Physical Education.....	P.E. 104	1
		18			18

<sup>1</sup> For freshman year see page 70.

## 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 YEAR<sup>1</sup>

Third Semester			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.
Principles of Economics.....Ec	101	3	Principles of Economics.....Ec	102	3
Fundamentals of Speech.....Eng	134	3	Calculus II.....Math	126	4
Calculus I.....Math	125	4	Mechanics I, Statics.....M.E.	211	3
General Physics.....Phys	151	4	Mechanics II, Dynamics.....M.E.	212	3
General Psychology.....Psy	100	3	General Physics.....Phys	152	4
Physical Education.....P.E.	103	1	Physical Education.....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 YEAR<sup>1</sup>

Third Semester			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.
Plane Surveying.....C.E.	103	3	Calculus II.....Math	126	4
Intro. to Economics.....Ec	100	3	Kinematics.....M.E.	206	4
Fundamentals of Speech.....Eng	134	3	Mechanics I, Statics.....M.E.	211	3
Calculus I.....Math	125	4	Mechanics II, Dynamics.....M.E.	212	3
General Physics.....Phys	151	4	General Physics.....Phys	152	4
Physical Education.....P.E.	103	1	Physical Education.....P.E.	104	1
		18			18

<sup>1</sup> For freshman year see page 70.

## Terminal Courses

## LABORATORY AND MEDICAL TECHNOLOGY

The following requirements for laboratory technicians or medical technologists are those set forth by the Registry of Medical Technologists of the American Society of Clinical Pathologists. Students who complete this terminal curriculum are eligible to apply for registration.

## MINIMUM REQUIREMENTS

*Biology:*

Twelve semester hours, of which ten hours must be in zoology. Additional courses which may be taken to fulfill this requirement are histology, embryology, comparative anatomy, physiology, bacteriology, and hygiene.

*Chemistry:*

Twelve hours of general inorganic chemistry, including laboratory work.  
Four hours of quantitative analysis, including laboratory work.

*Electives:*

Sufficient to give a minimum of sixty semester hours of college credit. The following courses are recommended, but not required: physics, organic chemistry, histology, embryology, physiology, and comparative anatomy.

## 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 Anal.	Chem 102	6
Composition	Eng 101	3	Elective		3
College Algebra	Math 107	3	Composition	Eng 102	3
Phys. Ed. and Hygiene	P.E. 101	1	Phys. Ed. and Hygiene	P.E. 102	1
Pers. Hyg.	P.E. 105	1	Pers. Hyg.	P.E. 106	1
		17			18

## SOPHOMORE YEAR

Third Semester			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.
Bacteriology	Bio 211	4	Bacteriology	Bio 212	4
Inorganic Quantitative Anal.	Chem 121	4	Organic Chem.	Chem 230	4
Electives		7-8	Electives		7-8
Physical Education	P.E. 103	1	Physical Education	P.E. 104	1
		16-17			16-17

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

## MUSIC

A two-year course in music is offered for those who wish to extend their musical training without devoting four years to a college program. Ordinarily such a restricted course should be followed by more advanced study and instruction. It is possible, however, during two years of concentrated study, to establish a sound foundation in the fundamentals of music.

## FRESHMAN YEAR

First Semester			Second Semester		
Title	Number	Cr.	Title	Number	Cr.
Composition	Eng 101	3	Composition	Eng 102	3
Foreign Language <sup>1</sup>	101 or 103	3	Foreign Language <sup>1</sup>	102 or 104	3
Music, Applied		1	Music, Applied		1
Music, Theory	Mus 101	5	Intro. to Music	Mus 100	3
Elective		3	Music, Theory	Mus 102	5
Phys. Ed. and Hygiene	P.E. 101	1	Phys. Ed. and Hygiene	P.E. 102	1
Pers. Hyg.	P.E. 105	1	Pers. Hyg.	P.E. 106	1
		17			17

## SOPHOMORE YEAR

Third Semester			Fourth Semester		
Title	Number	Cr.	Title	Number	Cr.
Hist. of W. Civilization	Hist 101	3	Hist. of W. Civilization	Hist 102	3
Foreign Language <sup>1</sup>	103 or 200	3	Foreign Language <sup>1</sup>	104 or 200	3
Music, Applied		1	Music, Applied		1
Music, Theory	Mus 103	5	Music, Theory	Mus 104	5
Music, History	Mus 109	3	Music, History	Mus 110	3
Physical Education	P.E. 103	1	Physical Education	P.E. 104	1
		16			16

<sup>1</sup> The level of the course taken by the student will depend upon his achievement.

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. and Hygiene.....	P.E. 101	1	Trigonometry.....	Math 109	3
Pers. Hyg.....	P.E. 105	1	Phys. Ed. and Hygiene.....	P.E. 102	1
			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
General Physics.....	Phys 111	4	General 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
Physical Education.....	P.E. 103	1	Physical Education.....	P.E. 104	1
		15-16			15-16

PRE-DENTAL  
(Three years)

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. and Hygiene.....	P.E. 101	1	Trigonometry.....	Math 109	3
Pers. Hyg.....	P.E. 105	1	Phys. Ed. and Hygiene.....	P.E. 102	1
			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>
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
Physical Education.....	P.E. 103	1	Physical Education.....	P.E. 104	1
		16			16

JUNIOR YEAR

<i>Fifth Semester</i>			<i>Sixth 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
Histology.....	Bio 241	3	Histology.....	Bio 242	3
Organic Chemistry.....	Chem 231	5	Chemistry Elective.....	Chem	3
General Physics.....	Phys 111	4	General 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 curriculum 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

<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>
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. and Hygiene.....	P.E. 101	1	Shorthand and Typewriting.....	S.S. 102	4
Pers. Hyg.....	P.E. 105	1	Phys. Ed. and Hygiene.....	P.E. 102	1
			Pers. Hyg.....	P.E. 106	1
		15			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>
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
Physical Education.....	P.E. 103	1	Physical Education.....	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.

## MEDICAL STENOGRAPHY

Medical secretaries require special training so that they may have an intelligent understanding of their part in the work of a medical office. To provide the essential background, the secretarial courses are supplemented by biology and laboratory courses in chemistry and physiology. The courses in secretarial accounting and office procedures are adapted to the needs of the students preparing for work in the offices of physicians.

## 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>
Business Mathematics.....	B.A. 107	3	General Inorganic Chem.....	Chem 101	4
Biological Science.....	Bio 100	3	Composition.....	Eng 102	3
Composition.....	Eng 101	3	Shorthand and Typewriting.....	S.S. 102	4
Shorthand and Typewriting.....	S.S. 101	4	Secretarial Accounting.....	S.S. 120	3
Phys. Ed. and Hygiene.....	P.E. 101	1	Phys. Ed. and Hygiene.....	P.E. 102	1
Pers. Hyg.....	P.E. 105	1	Pers. Hyg.....	P.E. 106	1
		15			16

## 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>
Physiology.....	Bio 251	4	Office Management.....	B.A. 238	3
Hist. of W. Civilization.....	Hist 101	3	Physiology.....	Bio 252	4
Advanced Stenography.....	S.S. 109	4	Hist. of W. Civilization.....	Hist 102	3
Office Pro. and Machines.....	S.S. 205	3	Medical Stenography.....	S.S. 200	3
Elective.....		3	Elective.....		3
Physical Education.....	P.E. 103	1	Physical Education.....	P.E. 104	1
		18			17

A candidate for a degree with a major in medical stenography should consult with his adviser before planning his program of study. A student who completes the two-year program and then decides to continue work toward a degree should carefully plan the last two years with his adviser.



## Description of Courses

## ACCOUNTING

Professor Rosenberg, chairman; Instructors Curtis, T. C. Richards, Slamon, Werner.

ACCT. 101. ELEMENTARY ACCOUNTING—*Three hours* 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 hours* 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: Accounting 101.

ACCT. 111. INTERMEDIATE ACCOUNTING—*Three hours* 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: Accounting 102.

ACCT. 112. ADVANCED ACCOUNTING—*Three hours* 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: Accounting 111.

ACCT. 201. COST ACCOUNTING—*Three hours* 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: Accounting 112 or approval of instructor.

ACCT. 202. ADVANCED COST ACCOUNTING—*Three hours* 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: Accounting 201 or approval of instructor.

ACCT. 220. ACCOUNTING SYSTEMS—*Three hours* 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: Accounting 112, 201.

ACCT. 221. TAXES I—*Three hours* 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: Accounting 112, 202 or approval of instructor.

ACCT. 222. TAXES II—*Three hours* 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 hours* 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: Accounting 202.

ACCT. 232. AUDITING PRACTICE—*Three hours* 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: Accounting 231.

ACCT. 242. ADVANCED PROBLEMS—*Three hours* 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 Lorusso.

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.

ART 101-102. BASIC ART—*Three hours 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 hours 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 hours each semester* MR. LORUSSO

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 hours each semester* MR. LORUSSO

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 hours* 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 hours* 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 201-202. ILLUSTRATION—*Three hours 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 hours 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 hours 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 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, 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 hours 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 hours 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 hours 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 hours 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.

## BIOLOGY

Professor Reif, chairman; Instructors Namisniak and Gallia.

BIO. 100. BIOLOGICAL SCIENCE—*Three hours* THE STAFF

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 hours* 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.

BIO. 111-112. GENERAL BOTANY—*Three hours 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.

BIO. 113. BOTANICAL TAXONOMY—*Four hours* 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.

BIO. 201. COMPARATIVE ANATOMY OF THE VERTEBRATES—*Four hours* MISS GALLIA

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. Prerequisite: Biology 102.

BIO. 202. EMBRYOLOGY—*Four hours* STAFF

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. Prerequisite: Biology 201, or permission of instructor.

BIO. 211-212. BACTERIOLOGY—*Four hours each semester* MRS. NAMISNIAK

Biology 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. Prerequisite: Biology 102.

Biology 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. Prerequisite: Biology 211.

BIO. 223. ENTOMOLOGY—*Four hours* 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. Prerequisite: Biology 101, or permission of instructor.

BIO. 241-242. HISTOLOGY AND ORGANOLGY—*Three hours each semester* MISS GALLIA

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 Biology 202, or permission of instructor.

BIO. 251-252. PHYSIOLOGY—*Three hours each semester* MRS. NAMISNIAK

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. Prerequisite: through Biology 242, Chemistry 230, and Physics 112, or permission of instructor.

Prerequisite: for Biology 252 is Biology 251.

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

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 Elliot, Farrar, Instructors Bunn, Casper, Connor, Livingstone, Slamon, Werner, Young, Mackson, Kohn, Puhak, Wood, Johns, Lu, Bloomburg.

B.A. 99. BASIC BUSINESS ENGLISH—*No credit* THE STAFF

A course designed to aid in the writing of business letters, with stress on the fundamentals of business correspondence. Class three hours a week.

B.A. 100. SURVEY OF BUSINESS<sup>1</sup>—*Three hours* 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.

B.A. 107. BUSINESS MATHEMATICS—*Three hours* 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. SALESMANSHIP—*Three hours* MR. YOUNG

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.

B.A. 209. BUSINESS CORRESPONDENCE AND REPORTS—*Three hours* THE STAFF

Fundamental principles of business writing with emphasis on letters and reports.

Prerequisite: English 102.

B.A. 216. ADVERTISING—*Three hours* MR. BUNN, 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 hours* MR. ROSENBERG

Problems and policies of railroads, buses, inland waterways, and air and ocean transportation; economic importance of transportation; significance of transportation to society.

Prerequisite: Economics 102.

<sup>1</sup> Credit for this course will be granted only to students who take it prior to taking Economics 101 and 102.

B.A. 218. CREDIT AND COLLECTIONS—*Three hours* 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: Economics 102, Accounting 102.

B.A. 220. REAL ESTATE—*Three hours* 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: Economics 102.

B.A. 222. MARKETING—*Three hours* MR. ELLIOT

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: Economics 102.

B.A. 225. CORPORATION FINANCE—*Three hours* MR. SLAMON

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: Economics 102.

B.A. 226. INVESTMENTS—*Three hours* MR. SLAMON

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: Business Administration 225.

B.A. 231. BUSINESS LAW—CONTRACTS—*Three hours*  
MR. CASPER, MR. MACKSON

The foundation for all subjects in the field of business law. Examination of the essential elements of a valid contract and the application to typical business transactions. These essential elements are: the agreement; the subject matter (what the contract is about); the consideration (that value which is given by each party for his interest in the subject

matter); the form (written or oral); the competency of parties; and the genuineness of assent (legal or illegal inducement to agree).

Prerequisite: Economics 102 or approval of instructor.

B.A. 232. BUSINESS LAW—SALES, AGENCY, BAILMENT—*Three hours*  
MR. CASPER, MR. MACKSON

A general study of the Law of Sales, the Law of Agency, and the Law of Bailment. Legal problems arising out of the sale of merchandise by manufacturers, distributors and dealers; out of the financing, processing, shipment, and warehousing of merchandise; and out of government regulations thereof.

Prerequisite: Business Administration 231.

B.A. 233. BUSINESS LAW—PARTNERSHIPS AND CORPORATIONS  
*Three hours* MR. WERNER, MR. PUHAK

Principles of law governing partnerships and corporations, in their formation, operation, internal relationships, and dissolution, with particular reference to their dependency upon the law of agency. Legal aspects of the insurance contract with respect to the insured, insurer, and beneficiary, and the interest necessary to create an insurance contract.

Prerequisite: Business Administration 231, 232, Accounting 102.

B.A. 234. BUSINESS LAW—PROPERTY—*Three hours*  
MR. WERNER, MR. PUHAK

Law of property; the mortgagor-mortgagee relationships; the landlord-tenant relationship; business crimes (crimes against the person, property, business transactions); bankruptcy; and trusts (security of person, property, business relations, and business transactions).

Prerequisite: Business Administration 231, 232, Accounting 102.

B.A. 235. INDUSTRIAL MANAGEMENT—*Three hours* MR. YOUNG

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: Business Administration 225.

B.A. 236. PERSONNEL MANAGEMENT—*Three hours* MR. YOUNG

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

Prerequisite: Economics 223 or approval of instructor.

B.A. 237. PRODUCTION MANAGEMENT—*Three hours* MR. YOUNG

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

Prerequisite: Economics 223 or approval of instructor.

B.A. 238. OFFICE MANAGEMENT—*Three hours* MR. YOUNG

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 hours* MR. YOUNG

The relation of the sales department to all other departments; types of sales organizations; selection, training, compensation, and management of the sales force; sales research and market analysis; determination of price and brand policies; preparation of sales budgets; costs of distribution.

Prerequisite: Business Administration 114 or equivalent.

B.A. 240. PROPERTY INSURANCE—*Three hours* MR. CONNOR

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 hours* MR. CONNOR

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 hours* THE STAFF

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 hours* 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, and Worstall

### 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 hours*

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.

CHEM. 102. INORGANIC CHEMISTRY AND QUALITATIVE ANALYSIS  
*Six hours*

MISS BONE

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.

Prerequisite: Chemistry 101.

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

MISS BONE, MR. WORSTALL

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.

Prerequisite: Chemistry 101.

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

MR. SALLEY

Theory and practice of typical analyses. Class, two hours a week; laboratory, six hours a week. Breakage deposit required.

Prerequisite: Chemistry 102.



- CHEM. 122. INORGANIC QUANTITATIVE ANALYSIS—*Five hours*  
MR. SALLEY  
A continuation of Chemistry 121. Class, two hours a week; laboratory, nine hours a week. Breakage deposit required.  
Prerequisite: Chemistry 121.
- CHEM. 230. ORGANIC CHEMISTRY—*Four hours* 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.  
Prerequisite: Chemistry 121.
- CHEM. 231. ORGANIC CHEMISTRY—*Five hours* 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.  
Prerequisite: Chemistry 230.
- CHEM. 233. QUALITATIVE ORGANIC ANALYSIS—*Three hours*  
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.  
Prerequisite: Chemistry 231.
- CHEM. 234. TOPICS IN ORGANIC CHEMISTRY—*Three hours*  
MR. BASTRESS  
Special topics in organic chemistry, including theories of organic reactions. Class, three hours.  
Prerequisite: Chemistry 231.
- CHEM. 241-242. PHYSICAL CHEMISTRY—*Four hours 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.  
Prerequisite: Chemistry 121, Mathematics 126, Physics 202.
- CHEM. 243. TOPICS IN PHYSICAL CHEMISTRY—*Three hours*  
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: Chemistry 242.

- CHEM. 244. TOPICS IN INORGANIC CHEMISTRY—*Three hours*  
MR. SALLEY  
A course designed to introduce the student to the modern theories of inorganic chemistry. Class, three hours.  
Prerequisite: Chemistry 121.
- CHEM. 251-252. BIOLOGICAL CHEMISTRY—*Three hours 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.  
Prerequisite: Chemistry 121 and 230.
- CHEM. 261. HISTORY OF CHEMISTRY—*One hour* 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 hour* MR. BASTRESS  
An orientation course in foreign and domestic chemical literature.  
Prerequisite: completion of twenty chemistry credits.
- CHEM. 271. RESEARCH PROJECT—*One to three hours each semester*  
CHEM. 272. THE STAFF

## ECONOMICS

Professor Rosenberg, chairman; Assistant Professors Elliot; Instructors Young and Lu.

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

- EC. 100. INTRODUCTION TO ECONOMICS—*Three hours* 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 hours* 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 hours* THE STAFF

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

Prerequisite: Economics 101.

EC. 201. MONEY AND BANKING—*Three hours*

MR. ROSENBERG, MR. ELLIOT

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: Economics 102.

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

MR. ROSENBERG, MR. ELLIOT

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: Economics 201.

EC. 204. CONSUMER CREDIT—*Two hours*

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 hours* 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: Political Science 101, Economics 102.

EC. 223. COLLECTIVE BARGAINING—*Three hours* MR. YOUNG

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: Economics 102.

EC. 225. INTERNATIONAL TRADE—*Three hours* MR. ELLIOT

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: Economics 102.

EC. 226. ECONOMIC GEOGRAPHY—*Three hours* 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: Economics 102.

EC. 227. ECONOMIC GEOGRAPHY—NORTH AMERICA—*Three hours*

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: Economics 102.

EC. 229. COMPARATIVE ECONOMIC SYSTEMS—*Three hours*

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 hours*

MR. LU

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 hours*

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 hours* 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: Economics 231.

EC. 236. PUBLIC FINANCE—*Three hours* MR. ROSENBERG

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: Economics 102, Political Science 101.

EC. 238. ECONOMIC HISTORY—*Three hours* MR. ELLIOT, MR. LU

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: Economics 102.

EC. 241. ECONOMIC ANALYSIS—*Three hours* MR. LU

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: Economics 102.

EC. 245. CONSUMER ECONOMICS—*Three hours* MR. LU

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: Economics 102.

EC. 246. ECONOMICS INVESTIGATION—*Three hours* MR. ELLIOT

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; Assistant Professor Karr; Instructor R. Moran.

ED. 100. AMERICAN PUBLIC EDUCATION—*One hour* 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 hours* MR. HAMMER

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.

ED. 201. EDUCATIONAL PSYCHOLOGY—*Three hours* 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: Psychology 100 and Education 101.

ED. 202. EDUCATIONAL MEASUREMENTS FOR THE SECONDARY SCHOOL

ED. 203. EDUCATIONAL MEASUREMENTS FOR THE ELEMENTARY SCHOOL  
*Two hours* MR. HAMMER

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: Education 101, 201.

ED. 204. PRINCIPLES AND METHODS OF SECONDARY EDUCATION—  
*Three hours* 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: Education 101, 201.

ED. 205. SECONDARY CURRICULUM—*Three hours* 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: Education 101, 201.

ED. 207. STUDENT TEACHING IN THE SECONDARY SCHOOL—*Eight hours*

ED. 208. STUDENT TEACHING IN THE ELEMENTARY SCHOOL—*Six to twelve hours* MR. HAMMER, MR. KARR

Students are assigned to the guidance of competent, experienced teachers. They observe several teachers. Gradually they assume classroom responsibility and teach under supervision. They plan lesson units and complete curriculum units. Conferences with the teachers-in-charge and professors-in-charge aid in discussion of principles and problems.

Prerequisite: approval of Department Chairman.

ED. 211. EXTRACURRICULAR ACTIVITIES—*Three hours* 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: Education 101, 201.

ED. 212. VISUAL EDUCATION—*One hour* 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: Education 101, 201.

ED. 214. GUIDANCE—*Two hours* MR. HAMMER

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: Education 101, 201.

ED. 231. THE TEACHING OF READING—*Three hours* MR. KARR

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: Education 101, 201.

ED. 232. THE TEACHING OF ARITHMETIC—*Two hours* MR. KARR

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: Education 101, 201.

ED. 234. THE TEACHING OF LANGUAGE ARTS—*Two hours*

MR. KARR

Study of the principles and practices of education in the field of elementary English; methods, aims, and objectives; methods and techniques for developing units of work; attention given to handwriting, spelling, and the utilization of the library.

Prerequisite: Education 101, 201.

ED. 235. CHILDREN'S LITERATURE AND STORY TELLING

*Three hours*

MR. KARR

Designed to provide familiarity with classic and modern literature for children of elementary school age. Techniques and practices in story telling will be stressed, and particular emphasis will be placed on the use of dramatization and graphic materials.

Prerequisite: Education 101, 201.

ED. 236. TEACHING THE ELEMENTARY SOCIAL STUDIES—*Three hours*

MR. KARR

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: Education 101, 201.

ED. 237. PRINCIPLES OF ELEMENTARY EDUCATION—*Two hours*

MR. KARR

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: Education 101, 201.

## ED. 238. THE CURRICULUM OF THE ELEMENTARY SCHOOL

*Three hours*

MR. KARR

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: Education 101, 201.

ED. 239. TEACHING OF ELEMENTARY SCHOOL SCIENCE—*Two hours*

MR. HAMMER

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: Education 101, 201.

ED. 241. ART IN THE ELEMENTARY SCHOOL—*Two hours* THE STAFF

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: Education 101, 201.

ED. 242. MUSIC IN THE ELEMENTARY SCHOOL—*Two hours*

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: Education 101, 201.

## ED. 243. HEALTH AND PHYSICAL EDUCATION IN THE ELEMENTARY

SCHOOL—*Two hours*

THE STAFF

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: Education 101, 201.

ED. 290. WORKSHOP IN ELEMENTARY EDUCATION—*Three hours*

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.

## ENGINEERING

Associate Professor Hall, chairman; Assistant Professors Heltzel and Worstall; Instructor Thomas.

ENGI. 100. ENGINEERING PROBLEMS—*Two hours*

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.

ENGI. 101. BASIC DRAWING—*Two hours*

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.

## ENGI. 105. ENGINEERING DRAWING AND DESCRIPTIVE GEOMETRY I.—

*Three hours*

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.

ENGI. 106. ENGINEERING DRAWING AND DESCRIPTIVE GEOMETRY II.  
—*Two hours* 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 hours* MR. WORSTALL

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: Chemistry 121; Physics 151.  
Co-requisite: Physics 152.

*Civil Engineering*

C.E. 103. PLANE SURVEYING—*Three hours* 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.

Prerequisite: Engineering 105, Mathematics 105 or 107 and 109.

C.E. 104. ROUTE SURVEYING—*Four hours* 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.

Prerequisite: C.E. 103.

*Mechanical Engineering*

M.E. 206. KINEMATICS—*Three hours* 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: Engineering 106, Mathematics 122, Physics 150

M.E. 211. MECHANICS I. STATICS—*Three hours* 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: Physics 150, Mathematics 125.  
Co-requisite: Mathematics 126.

M.E. 212. MECHANICS II. DYNAMICS—*Three hours* 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 Craig, chairman; Associate Professors Davies and Raddin; Assistant Professors Donnelly and Kruger; Instructors Cappellini, Groh, Lord, Moran, and Tyburski.

Students who major in English are required to complete twenty-four hours of work beyond the prescribed courses of the freshman and sophomore years. The twenty-four hours shall include an advanced course in composition or journalism, Shakespeare, and three hours of work in linguistics, the History of the Languages or Chaucer and a minimum of fifteen hours in literature.

It is strongly recommended that all majors in English take six hours in a foreign language beyond the minimum requirement of twelve hours. All students who wish to take graduate work in the field of English should take at least twenty-four hours in two foreign languages.

Majors who wish to teach in secondary schools are advised to elect English 275. The credit for this course may be counted toward either the major or the satisfaction of requirements for certification in education. In planning his program with his faculty adviser, the student

should make an early decision regarding the field in which credit for this course is desired.

All entering freshmen are required to take a placement test in English. Those who are exempted from taking English 101 as a result of the test will take English 102 and 105. Those students who show a deficiency are required to take an extra hour of drill to supplement their work in English 101.

#### Composition

ENG. 99. REMEDIAL ENGLISH—*No credit* THE STAFF

A remedial course for students whose work in English is unsatisfactory.

ENG. 101. COMPOSITION—*Three hours* THE STAFF

Principles of exposition; collateral reading; writing of themes.

ENG. 102. COMPOSITION—*Three hours* THE STAFF

Principles of exposition continued; collateral reading; writing of themes; research paper.

Prerequisite: English 101.

ENG. 105. ADVANCED EXPOSITION—*Three hours* THE STAFF

A study of the various expository types. Readings. Intensive practice in the writing of informative articles.

Prerequisite: English 101 and 102. In exceptional cases this requirement may be waived.

ENG. 106. SHORT STORY—*Three hours* MR. KRUGER

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

Prerequisite: English 102.

#### Journalism

ENG. 121. JOURNALISTIC WRITING—*Three hours* 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: English 102.

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

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

Prerequisite: English 102.

ENG. 124. FEATURE WRITING—*Three hours* 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: English 102.

#### Language and Literature

ENG. 151. WESTERN WORLD LITERATURE—*Four Hours*

MR. DAVIES, MR. DONNELLY, MR. RADDIN

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

Prerequisite: English 102, or substitute in composition.

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

MR. DAVIES, MR. DONNELLY, MR. RADDIN

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

Prerequisite: English 151.

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

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

Prerequisite: English 102.

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

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

Prerequisite: English 102.

ENG. 155 AND 156. CONTEMPORARY LITERATURE—*Three hours each semester* MR. DONNELLY, MR. KRUGER

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

Prerequisite: English 102.

ENG. 201. HISTORY OF THE ENGLISH LANGUAGE—*Three hours* MR. DONNELLY

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

Prerequisite: English 152.

ENG. 205. CHAUCER—*Three hours* MISS CRAIG

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

Prerequisite: English 152.

ENG. 211. EARLY ENGLISH DRAMA—*Three hours* MR. DAVIES

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: English 152.

ENG. 212. LATER ENGLISH DRAMA—*Three hours* MR. DAVIES

Study of the drama in England from 1660 to the end of the Victorian period; reading of representative plays.

Prerequisite: English 152.

ENG. 215. SHAKESPEARE—*Three hours* MISS CRAIG

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

Prerequisite: English 152.

ENG. 216. MILTON—*Three hours* MISS CRAIG

Study of the poetical works of John Milton; lectures, discussions, written reports.

Prerequisite: English 152.

ENG. 221. AGE OF POPE—*Three hours* MISS CRAIG

A study of the poetry and non-fictional prose of this period, including the work of leading essayists, biographers, diarists, and letter writers.

Prerequisite: English 152.

ENG. 222. AGE OF JOHNSON—*Three hours* MISS CRAIG

A study of the poetry and non-fictional prose of 1740-1798, including the work of leading essayists, biographers, diarists, and letter writers.

Prerequisite: English 152.

ENG. 237. EARLY ENGLISH NOVEL—*Three hours* MISS CRAIG

English prose fiction of the sixteenth and seventeenth centuries; rise of the novel to the close of the eighteenth century.

Prerequisite: English 152.

ENG. 238. LATER ENGLISH NOVEL—*Three hours* MISS CRAIG

The major novelists of the nineteenth and early twentieth centuries.

Prerequisite: English 152.

ENG. 241. THE ROMANTIC MOVEMENT—*Three hours* MR. DONNELLY

Study of the works of Wordsworth, Coleridge, Scott, and the prose writers contemporary with them.

Prerequisite: English 152.

ENG. 242. THE ROMANTIC MOVEMENT—*Three hours* MR. DONNELLY, MR. RADDIN

Study of the works of Byron, Shelley, Keats and the prose writers contemporary with them.

Prerequisite: English 152.

ENG. 259. TENNYSON AND BROWNING—*Three hours* MR. DAVIES

Study of the poetry of Alfred Tennyson and Robert Browning and its relations to other literature of the nineteenth century.

Prerequisite: English 152.

ENG. 260. VICTORIAN PROSE—*Three hours* 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: English 152.

ENG. 275. TEACHING OF ENGLISH IN SECONDARY SCHOOLS  
*Three hours* THE STAFF

Analysis and discussion of those methods of instruction which have been used most effectively in the teaching of English literature and composition. Study of the principal phenomena in the development of the English language and grammar. Intended for juniors and seniors.



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

*Speech*

- ENG. 131. FUNDAMENTALS OF SPEECH—*Two hours* MR. KRUGER, MR. GROH

The physical, mental, and social equipment requisite for effective speaking. Classroom projects, which include oral reading, gesture exercise, pantomime, and various extemporaneous speeches, are designed to improve the student's physical behavior on the platform, to train his voice, to develop vocal variety, and to build habits of clear thinking. Critical analysis of speech technique and content, the purpose being to produce not only better speakers but also better critics of speech.

- ENG. 132. EXTEMPORANEOUS SPEAKING—*Two hours* MR. KRUGER

Continuation of English 131. Projects include speeches for various occasions, group discussions, and symposiums, with emphasis on the principles of persuasion, types of evidence, and methods of reasoning. Continued critical analysis of speech technique and content; constant practice in speaking and thinking to a definite end.

Prerequisite: English 131.

- ENG. 133. ARGUMENTATION AND DEBATE—*Two hours* MR. KRUGER

The commoner forms and methods of argumentation, both written and oral, are studied and practiced, with emphasis on briefing and debate; contemporary problems and current debate questions are discussed. Required of all students participating in intercollegiate debate.

Prerequisite: English 131, or consent of the instructor.

- ENG. 134. FUNDAMENTALS OF SPEECH FOR TECHNICAL STUDENTS  
*Three hours* MR. KRUGER, MR. GROH

Similar to English 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 McAniff.

*French*

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

- FR. 101. ELEMENTARY FRENCH—*Three hours* THE STAFF  
Introduction to French grammar; practice in reading, writing, and speaking the language.
- FR. 102. ELEMENTARY FRENCH—*Three hours* THE STAFF  
Continuation of French 101.  
Prerequisite: French 101 or the equivalent.
- FR. 103. INTERMEDIATE FRENCH—*Three hours* THE STAFF  
Review of grammar; practice in oral and written French; selected reading of modern French prose.  
Prerequisite: French 102 or the equivalent.
- FR. 104. INTERMEDIATE FRENCH—*Three hours* THE STAFF  
Introduction to French civilization; practice in oral and written French.  
Prerequisite: French 103 or the equivalent.
- FR. 105. TECHNICAL FRENCH—*Three hours* 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: French 103 or the equivalent.
- FR. 106. FRENCH CONVERSATION—*Three hours* 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: French 104 or the equivalent.
- FR. 107. FRENCH COMPOSITION—*Three hours* MISS DWORSKI  
Study of grammar and idiomatic usage in modern French, applied to composition exercises and free composition.  
Prerequisite: French 104 or the equivalent.
- FR. 201-202. SURVEY OF FRENCH LITERATURE—*Three hours 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: French 104 or the equivalent.

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

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

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

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

### German

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

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

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

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

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

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

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

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

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

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

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

GER. 205. NINETEENTH CENTURY GERMAN DRAMA—*Three hours* 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: German 201-202 or equivalent.

GER. 206. MODERN GERMAN SHORT STORY—*Three hours*

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: German 201-202 or equivalent.

*Spanish*

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

SP. 101. ELEMENTARY SPANISH—*Three hours*

THE STAFF

Introduction to Spanish grammar; practice in reading, writing, and speaking the language.

SP. 102. ELEMENTARY SPANISH—*Three hours*

THE STAFF

Continuation of Spanish 101.

Prerequisite: Spanish 101 or equivalent.

SP. 103. INTERMEDIATE SPANISH—*Three hours*

THE STAFF

Review of grammar; practice in oral and written Spanish; selected reading of modern Spanish prose.

Prerequisite: Spanish 102 or equivalent.

SP. 104. INTERMEDIATE SPANISH—*Three hours*

THE STAFF

Introduction to Spanish civilization; practice in oral and written Spanish.

Prerequisite: Spanish 103 or equivalent.

SP. 105. COMMERCIAL SPANISH—*Three hours*

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: Spanish 103 or equivalent.

SP. 106. SPANISH CONVERSATION—*Three hours*

MISS DWORSKI

Intensive practice in the spoken language, with emphasis on idiomatic usage. Use of records and the microphone to acquire fluency in speaking Spanish.

Prerequisite: Spanish 104 or equivalent.

SP. 107. SPANISH COMPOSITION—*Three hours*

MISS DWORSKI

Study of grammar and idiomatic usage in modern Spanish, applied to composition exercises and free composition.

Prerequisite: Spanish 104 or equivalent.

SP. 108. SPANISH AMERICAN CULTURE—*Three hours* MISS DWORSKI

The cultural, economic, and political development of the Spanish American countries.

Prerequisite: Spanish 103 or equivalent.

## SP. 201-202. SURVEY OF SPANISH LITERATURE

*Three hours 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: Spanish 104 or equivalent.

SP. 203. THE GOLDEN AGE OF SPANISH LITERATURE—*Three hours*

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: Spanish 201-202 or equivalent.

SP. 204. NINETEENTH CENTURY SPANISH DRAMA—*Three hours*

MISS DWORSKI

Study of representative works of nineteenth century Spanish drama.

Prerequisite: Spanish 201-202 or equivalent.

SP. 205. NINETEENTH CENTURY SPANISH NOVEL—*Three hours*

MISS DWORSKI

The development of the Spanish novel in the nineteenth century.

Prerequisite: Spanish 201-202 or equivalent.

## GENERAL SCIENCE

BIO. 100. See page 86.

GEOL. 100. GENERAL GEOLOGY—*Two hours*

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 130.

## HISTORY

Professor Thatcher, chairman; Associate Professor Mui; Instructor Kaslas, Instructor Ritchie.

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 History 101, 102, 107, and 108; History 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 hours 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 MR. THATCHER  
*Three hours*

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 hours* MR. THATCHER

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

HIST. 206. THE UNITED STATES IN THE TWENTIETH CENTURY MR. THATCHER  
*Three hours*

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: History 107 and 108.

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

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: History 107, 108, and Political Science 101. Restricted to juniors and seniors. History 223 is a prerequisite for History 224.

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

A study of the westward movement in American history.

Prerequisite: History 107 and 108.

HIST. 228. HISTORY OF THE FOREIGN POLICY OF THE UNITED STATES MR. THATCHER  
*Three hours*

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

Prerequisite: History 107, 108, and Political Science 101. Restricted to juniors and seniors.

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

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

Prerequisite: History 101 and 102.

HIST. 242. ENGLISH HISTORY FROM THE REIGN OF ELIZABETH MR. MUI  
*Three hours*

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: History 101 and 102.

HIST. 253. THE HISTORY OF EUROPE FROM 1500 TO THE FRENCH REVOLUTION—*Three hours*

A study of the political, social, economic, and intellectual life of Europe from the time of its expansion in 1500 to the outbreak of the French Revolution.

Prerequisite: History 101 and 102 or consent of instructor.

HIST. 254. THE FRENCH REVOLUTION AND NAPOLEON MR. MUI  
*Three hours*

A study of the origin, events, and consequences of the French Revolution. The Revolution will be considered as an intellectual and social as well as a political movement in the history of France as a national state and of Europe as a civilization.

Prerequisite: History 101 and 102.

HIST. 255. EUROPE IN THE NINETEENTH CENTURY—*Three hours*  
MR. MUI  
A study of the political, social, and cultural development of Europe from the Congress of Vienna to World War I.  
Prerequisite: History 101 and 102.

HIST. 256. EUROPE IN THE TWENTIETH CENTURY—*Three hours*  
MR. MUI  
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: History 101 and 102.

### MATHEMATICS

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

The major in mathematics is outlined on page 53.

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 130.

MATH. 101. FUNDAMENTALS OF MATHEMATICS—*Three hours* THE STAFF  
A course designed for those who want a general background in mathematical concepts without specialization in techniques. Students taking Mathematics 105, 107, or 109 will not be granted credit for Mathematics 101 or 102.

MATH. 102. FUNDAMENTALS OF MATHEMATICS—*Three hours* THE STAFF  
A continuation of Mathematics 101.

MATH. 105. COLLEGE ALGEBRA AND TRIGONOMETRY—*Five hours* THE STAFF  
A combination of Mathematics 107 and 109.  
Prerequisite: Mathematics 99 or its equivalent.

MATH. 107. COLLEGE ALGEBRA—*Three hours* THE STAFF  
Proportion, progressions, inequalities, mathematical induction, binomial theorem, complex numbers, roots of equations, permutations and combinations, probability, determinants, partial fractions.  
Prerequisite: Mathematics 99 or its equivalent.

MATH. 109. PLANE TRIGONOMETRY—*Three hours* THE STAFF  
Trigonometric functions, solutions of triangles, trigonometric identities, inverse functions, trigonometric equations.  
Prerequisite: Mathematics 99 or its equivalent.

MATH. 115. MATHEMATICS OF FINANCE I—*Three hours* THE STAFF  
Progressions, binomial theorem, logarithms, simple interest, compound interest, equations of value, annuities, sinking funds, amortization, depreciation, capitalized cost.  
Prerequisite: Mathematics 99 or its equivalent.

MATH. 118. INTRODUCTION TO STATISTICS—*Three hours* 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: Mathematics 99 or its equivalent.

MATH. 122. ANALYTIC GEOMETRY—*Four hours* 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: Mathematics 105, or both Mathematics 107 and Mathematics 109.

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

MATH. 126. CALCULUS II—*Four hours* THE STAFF  
Differentiation and integration of transcendental functions, applications, improper integrals, indeterminate forms, infinite series, partial derivatives, multiple integrals, and introduction to differential equations.  
Prerequisite: Mathematics 125.

MATH 127. TEACHING OF MATHEMATICS IN SECONDARY SCHOOLS  
*Three hours* MR. WASILESKI

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: Mathematics 125.

MATH. 208. HISTORY OF MATHEMATICS—*Three hours* MR. RICHARDS

Beginnings in Babylon and Egypt, the Greeks, the Hindus and Moslems, awakenings in Europe, Fermat and Descartes, Newton's importance in the seventeenth century, the great expansion of the eighteenth century, the strengthening of the foundations in the nineteenth century, the trend to abstraction in this century.

Prerequisite: Mathematics 126.

MATH. 213. HIGHER ALGEBRA—*Three hours* MR. WASILESKI

Real and complex numbers, groups, rings, integral domains, fields, matrices, determinants.

Prerequisite: Mathematics 125.

MATH. 218. MATHEMATICS OF FINANCE II—*Three hours*  
MR. WASILESKI

*A priori* probability, empirical probability, mortality tables, annuities certain, pure endowment, life annuities, whole life insurance, premiums, premium formulas, reserves, reserve systems, gross premiums.

Prerequisite: Mathematics 115, or permission of instructor.

MATH. 221. ADVANCED EUCLIDEAN GEOMETRY—*Three hours*  
MR. WASILESKI

The notable lines, points, and circles associated with the triangle; circles and systems of circles.

Prerequisite: plane geometry.

MATH. 222. SYNTHETIC PROJECTIVE GEOMETRY—*Three hours*  
MR. WASILESKI

An introduction to projective methods and their application to the point, line, and plane.

Prerequisite: plane geometry.

MATH. 228. STATISTICAL METHODS—*Three hours* MR. RICHARDS

Frequency distributions of one variable, moments as statistical constants, discrete frequency distributions, theoretical distributions for testing hypotheses, frequency distributions of more than one variable, random sampling, linear regression and correlation, introduction to multiple and partial correlation.

Prerequisite: Mathematics 126.

MATH. 240. DIFFERENTIAL EQUATIONS—*Three hours* THE STAFF

Solution of ordinary differential equations, applications.

Prerequisite: Mathematics 126.

MATH. 251. ADVANCED CALCULUS—*Three hours* MR. RICHARDS

An elaboration of the theory and applications of calculus.

Prerequisite: Mathematics 126.

### MUSIC

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

Liberal Arts students wishing to major in music will follow the program outlined on page 54. A two-year terminal program is outlined on page 75.

### APPLIED MUSIC<sup>1</sup>

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

<sup>1</sup> For fees see page 27.

MUS. 101-102-103-104. THEORY OF MUSIC—*Five hours 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 hours* 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 hours* 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 credit hours 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 credit hours 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: Music 112.

MUS. 121-122-123-124. BAND—*One-half hour 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 hour 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 hour 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 hours*  
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: Music 102 or the approval of the Chairman of the Department.

MUSIC 216. ORCHESTRA AND BAND ARRANGING—*Two hours*  
MR. DETROY AND MR. MORAN

Scoring for the large orchestra or the modern symphonic band. The student may select his field of concentration.

Prerequisite: Music 215.

MUS. 217. ANALYSIS—*Two hours* MR. DETROY

The technique of composition as disclosed by melodic, harmonic, and structural analysis of music in varied styles and from diverse periods.

Prerequisite: Music 102 or equivalent as demonstrated by an examination.

MUS. 218. COUNTERPOINT—*Three hours* MR. DETROY

A study of the sixteenth century art of contrapuntal writing as found in the styles of Palestrina, di Lasso, and Ingegneri.

Prerequisite: Music 102.

*Music Education*

MUS. ED. 101-102. CLARINET CLASS AND BAND METHODS—*Two credit hours 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 BAND METHODS—*Two credit hours 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 credit hours 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 credit hours* 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 credit hours 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 credit hours 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 credit hours 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 credit hours 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 credit hours* 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 credit hours* 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 credit hours per semester* THE STAFF

A course in the observation and practice teaching of vocal or instrumental music in the elementary or high schools.

## NURSING EDUCATION

Assistant Professor Jessee, chairman; Instructors M. Riley, Decker, Hoffman, Janjigian, Klein, Seeherman and Yench.

Enrollment in all of the following courses, with the exceptions of Nursing Education 101 and 102, is limited to graduate nurses.

N.E. 101. FOUNDATIONS OF NURSING—*Three hours* 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—*Three hours*  
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 NURSING—*Two hours* THE STAFF

A survey of the functions and activities of community agencies and organizations contributing to the maintenance of health, prevention of disease, care of the ill, and rehabilitation of the handicapped.

N.E. 106. SUPERVISION AND ADMINISTRATION—*Two hours*  
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 hours* 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 hours* MISS JESSEE

Supervised observation and practice in a hospital.  
Prerequisite: Approval of advisor.

N.E. 113 & 114. MEDICAL AND SURGICAL NURSING—*Two hours each*  
*each semester* MISS YENCHA

Advanced study of nursing principles and techniques as applied to the expert nursing care of medical-surgical patients. Offered in two semesters.

N.E. 115. OBSTETRIC NURSING—*Two hours* MRS. SEEHERMAN

Advanced study of nursing principles and procedures as applied to expert care of the obstetric patient.

N.E. 116. PEDIATRIC NURSING—*Two hours* THE STAFF

Advanced study of nursing principles and procedures as they apply to the effective care of children.

N.E. 117. PSYCHIATRIC NURSING—*Two hours* 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 hours* MISS HOFFMAN

An introduction to the field of public health nursing, including historical development, organization, functions, and trends.

N.E. 119. PUBLIC SCHOOL NURSING—*Two hours* MISS DECKER

A study of the public school health program and the functions of the nurse as an integral part of the health team.

### PHILOSOPHY—RELIGION

Associate Professor Vujica, chairman; Instructor 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. Sociology 208 is also acceptable.

#### *Philosophy*

PHIL. 101. INTRODUCTION TO PHILOSOPHY—*Three hours* 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 hours* 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 hours* 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 hours* 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 hours* 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 hours* 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 hours* 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 hours* 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 hours* 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 hours* 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 hours* 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 hours* 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 Religion 201.

REL. 204. THE LITERATURE OF THE NEW TESTAMENT—*Three hours* 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 Partridge, chairman; Instructor Shoemaker.

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 EDUCATION<sup>1</sup> *One hour 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.

<sup>1</sup> Class instruction in personal hygiene is required of all students, even those excused by physicians from taking physical education.

P.E. 103-104. PHYSICAL EDUCATION—*One hour each semester*  
THE STAFF  
This course is a continuation of Physical Education 101 and 102.

P.E. 105-106. PERSONAL HYGIENE—*One hour each semester*  
THE STAFF  
A study of present day health problems. The course undertakes to help students enjoy maximum health and happiness through better understanding of nutrition, infection, disease, nervous and mental disorders, and problems of parenthood. One hour each week.

### PHYSICS

Associate Professor Hall, chairman; Assistant Professors Heltzel and Worstall; Instructor Thomas.

PHYS. 100. PHYSICAL SCIENCE—*Three hours* MR. WORSTALL  
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 hour* 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 hours* MR. WORSTALL  
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.

Prerequisite: Math. 105, or Math. 107, 109, or permission of instructor.

PHYS. 119. METEOROLOGY—*Three hours*

A treatment of the fundamentals of meteorology, such as the earth's atmosphere, composition and movement. Atmospheric conditions ac-

companying weather changes. Weather predictions, air-mass analysis and the evaluation of weather and climate as related to agriculture, architecture, aviation, public utilities, transportation, business, industry, health, and recreation. Class three hours a week.

PHYS. 150. GENERAL PHYSICS (I)—*Four hours* 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.  
Prerequisite: Mathematics 105, or Math. 107, 109.

PHYS. 151. GENERAL PHYSICS (II)—*Four hours*  
MR. HALL AND STAFF  
Continuation of Physics 150. Sound, heat, and light. Class three hours a week and laboratory three hours a week.  
Prerequisite: Physics 150.

PHYS. 152. GENERAL PHYSICS (III)—*Four hours*  
MR. HALL AND STAFF  
Continuation of Physics 150 and 151. Electricity and Modern Physics. Class three hours a week and laboratory three hours a week.  
Prerequisite: Physics 150.

PHYS. 251. ELECTRICAL MEASUREMENTS—*Three hours* 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.  
Prerequisite: Physics 152, Math. 126.

### POLITICAL SCIENCE

Professor Mailey, chairman; Instructors Hibbard, Kaslas, and O'Karma.

A major in political science consists of twenty-four hours. All courses except Political Science 100 and 101 are acceptable toward the major.

P.S. 100. AMERICAN GOVERNMENT—*Three hours* MR. MAILEY  
This course includes a treatment of government in the United States at all levels: national, state, and local.

The course is offered to students in biology, chemistry, physics, and elementary education only. Arts and commerce and finance students may take the course only with the permission of the instructor.

P.S. 101. AMERICAN FEDERAL GOVERNMENT—*Three hours*  
THE STAFF

A study of the national government and the institutions related to it. Particular emphasis is placed on the Constitutional bases of the American system, the processes by which policy is enacted into law, and the methods by which those same policies are administered. The impact of the citizen on the government and of the government on the citizen is repeatedly emphasized.

P.S. 201-202. CONSTITUTIONAL LAW—*Three hours each semester*  
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: Political Science 101.

P.S. 203. POLITICS AND POLITICAL PARTIES—*Three hours* MR. MAILEY

A course intended to analyze the movements of political parties, elections, and the various methods used to gain control.

Prerequisite: Political Science 101.

P.S. 204. PUBLIC OPINION AND PROPAGANDA—*Three hours*  
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: Political Science 101 and Sociology 100.

P.S. 205. STATE GOVERNMENT—*Three hours* 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: Political Science 101.

P.S. 206. MUNICIPAL GOVERNMENT—*Three hours* 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: Political Science 101.

P.S. 207. PUBLIC ADMINISTRATION—*Three hours* MR. MAILEY

A study of the organization, activity, problems, and the recruitment policy of the public service.

Prerequisite: Political Science 101.

P.S. 208. LABOR LEGISLATION—*Three hours* 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: Political Science 101.

P.S. 209. SOCIAL LEGISLATION—*Three hours* 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: Political Science 101.

P.S. 221. INTERNATIONAL LAW—*Three hours* 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: Political Science 101.

Desideratum: United States and European history.

P.S. 222. INTERNATIONAL POLITICS—*Three hours* MR. KASLAS

A broad, general course which aims to present many of the factors that condition the foreign policies of nations.

Prerequisite: Political Science 101.

Desideratum: Some knowledge of history, governments, and geography.

P.S. 223. EUROPEAN GOVERNMENTS—*Three hours* MR. KASLAS

A study of two European governments representing two diametrically opposed ideologies, the English and the Russian. Since political institutions in the American system are traceable to the English, the first half of the course is devoted to the English government; the second half is a consideration of Russian political institutions. Comparisons between the two are continually made.

Prerequisite: Political Science 101.

## PSYCHOLOGY

Instructor R. Riley, chairman; Assistant Professor Dominguez; Instructor Kanner.

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 hours* 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. Not open to freshmen.

PSY. 201. ADVANCED GENERAL PSYCHOLOGY—*Three hours* 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: Psychology 100.

PSY. 203-204. EXPERIMENTAL PSYCHOLOGY—*Three hours 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: Psychology 100.

PSY. 206. APPLIED PSYCHOLOGY—*Three hours* 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: Psychology 100.

PSY. 207. CHILD PSYCHOLOGY—*Three hours* 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: Psychology 100.

PSY. 208. HUMAN BEHAVIOR—*Three hours* MISS DOMINGUEZ

Human adjustment and maladjustment to life situations with emphasis on motivation, emotional control, personality formation, and the treatment of the lesser personality disorders.

Prerequisite: Psychology 100.

PSY. 212. HISTORY AND DEVELOPMENT OF PSYCHOMETRIC METHODS  
*Three hours* THE STAFF

A study of the theory of psychological testing. The principles underlying test selection, standardization, and evaluation are stressed. This course is a prerequisite for the following courses: Psychology 251, 252, and 255.

Prerequisite: Psychology 100.

PSY. 251. INDUSTRIAL PSYCHOLOGY—*Three hours*

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: Psychology 212.

PSY. 252. PERSONNEL PSYCHOLOGY—*Three hours*

An introduction to the study of psychological factors underlying personnel procedures in business, industry, and education. Discussion of case studies in the settlement of personnel problems in the business world. The administration of the personnel program is analyzed from the point of view of the psychological effects it may have on the employee.

Prerequisite: Psychology 251 or permission of instructor.

PSY. 254. SYSTEMATIC PSYCHOLOGY—*Three hours* THE STAFF

A historical introduction to the conflicting 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: Psychology 100 and two other courses in psychology.

PSY. 255-256. CLINICAL PSYCHOLOGY—*Three hours each semester*

MISS DOMINGUEZ

A detailed study of the administration and interpretation of some of the individual tests. The student is given the opportunity for actual experience in testing in the Wilkes-Barre Public Schools. The interpretation, by the clinical method, of normal and abnormal behavior of children and adults. Historical sketch; outline of method, including examinations, classification, prognosis, and remedial measures. (Offered in alternate years.)

Prerequisite: Psychology 207 and 212 and permission of head of department.

PSY. 257. ABNORMAL PSYCHOLOGY—*Three hours* MISS DOMINGUEZ

A general survey of the principal forms of mental abnormalities, with emphasis on causes, symptoms, course, and treatment. (Offered in alternate years.)

Prerequisite: Psychology 208 and permission of head of department.

PSY. 260. CLINICAL PRACTICUM—*One to three hours a semester*

MISS DOMINGUEZ

Supervision of psychological testing is offered to individuals working toward certification as psychological examiners or school psychologists in the State of Pennsylvania. Forty-five hours of testing is required for one semester hour of credit. Open to graduates who are seeking certification as psychological examiners.

Prerequisite: Psychology 255-256 or equivalent.

PSY. 271-272. RESEARCH IN PSYCHOLOGY—*Three hours* THE STAFF

An opportunity to conduct individual research projects under supervision. (*Open to psychology majors only.*)

Prerequisite: permission of head of department.

## RETAIL MERCHANDISING

Professor Rosenberg, chairman; Instructors Bunn, Green, Berg, Morgan, Montz, Touey.

R.M. 101. PRINCIPLES OF RETAILING—*Three hours*

Policies and practices of the various retail institutions; types of retail institutions and types of merchandise handled; store location and layout; sales and service policies; employment, training, and welfare.

## R.M. 102. RETAIL STORE ORGANIZATION AND MANAGEMENT

*Three hours*

MR. BUNN

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.

R.M. 201. COLOR AND DESIGN—*Two hours*

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.

R.M. 205. RETAIL ADVERTISING AND SALES PROMOTION—*Three hours*

MR. BUNN, MR. GREEN

Study of basic principles of retail advertising and sales promotion. Organization and procedure of advertising department in retail stores; types of retail advertising; copy, headline, layout, type, advertising media, display; research.

R.M. 207. RETAIL SELLING—*Three hours*

MR. BUNN

Fundamentals of retail selling; constructive attitude; knowledge of merchandise and the store; knowledge of the customer; selling techniques; building permanent business. Laboratory observation; actual selling.

R.M. 210. ELEMENTS OF MERCHANDISE—*Three hours*

MR. BERG, 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.

Natural, industrial, and synthetic materials; properties, technologies, imitations; plastics, woods, wood construction, leather and leather goods, glass, pottery, china.

R.M. 212. PURCHASES AND MERCHANDISE CONTROL—*Three hours*

MR. BUNN

Importance of purchases; principles and methods; forms of procedure, handling, storing, and warehousing methods; inventories and their control; types and limitation of stock control systems; application of systems.

Prerequisite: approval of instructor.

R.M. 214. RETAIL BUYING—*Three hours*

MR. MONTZ

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.

R.M. 217. FUNDAMENTALS OF FASHION—*Three hours* 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.

R.M. 219. RETAIL PERSONNEL RELATIONS—*Three hours* MR. BUNN

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.

## R.M. 220. ORGANIZATION AND OPERATION OF THE SMALL STORE

*Two hours*

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.

R.M. 222. RETAIL CREDITS AND COLLECTIONS—*Two hours* THE STAFF

Organization of credit department; charge accounts; passing on application for credit; retail credit bureau; mercantile agencies; salescheck procedure; collection procedure and correspondence; personal financing; contracts; installment credit; legal aspects of retail credit.

## R.M. 224. RECENT TRENDS AND DEVELOPMENTS IN RETAILING

*Three hours*

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; Assistant Professor Verry; Instructors Curtis, Davies, 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.

## S.S. 101-102. SHORTHAND AND TYPEWRITING

*Two hours shorthand, two hours typewriting each semester*

MR. VERRY

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.

S.S. 105. SHORTHAND<sup>1</sup>—*Two hours*

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.

<sup>1</sup> Credit will be given only to students who have not previously taken Secretarial Studies 101-102.

S.S. 106. SHORTHAND<sup>1</sup>—*Two hours* 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: Secretarial Studies 105 or equivalent.

S.S. 107-108. TYPEWRITING<sup>1</sup>—*Two hours each semester* MR. DAVIES  
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.

S.S. 109-110. ADVANCED STENOGRAPHY  
*Three hours shorthand, one hour typewriting each semester* MR. VERRY

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.

Prerequisite: Secretarial Studies 102.

S.S. 113-114. ADVANCED SHORTHAND<sup>2</sup>—*Two hours 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: Secretarial Studies 106.

S.S. 115. ADVANCED TYPEWRITING<sup>2</sup>—*Two hours* MR. DAVIES  
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

<sup>1</sup> Credit will be given only to students who have not previously taken Secretarial Studies 101-102.

<sup>2</sup> Credit will be given only to students who have not previously taken Secretarial Studies 109-110.

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.

Prerequisite: Secretarial Studies 108.

S.S. 120. SECRETARIAL ACCOUNTING—*Three hours* MR. CURTIS  
Fundamental principles of accounting and their application to the keeping of books and records in business and professional offices.

S.S. 200. MEDICAL STENOGRAPHY—*Three hours* MR. VERRY  
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; practice in filling out forms for insurance companies, for Veterans Administration, and for Workmen's Compensation. Five hours each week. One hour lecture, four hours laboratory.

Prerequisite: approval of instructor.

S.S. 203. SPEECH REPORTING—*Two hours* MR. VERRY  
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 hours* MR. VERRY

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.

Prerequisite: approval of instructor.

S.S. 243. BUSINESS EDUCATION AND METHODS OF INSTRUCTION IN SECRETARIAL STUDIES—*Three hours* MR. VERRY

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

Assistant Professor Symonolewicz, chairman; Instructors Bloomburg, Chwalek, Connolly, Yarnal, and Young.

A major in sociology consists of twenty-four hours. Although Sociology 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: Sociology 255, 265, and 280. With the approval of the Department Chairman, however, other courses may in some instances be substituted.

The courses given by the Department of Sociology and Anthropology are divided into five groups:

#### I Sociological Theory

SOC. 100. INTRODUCTION TO SOCIOLOGY—*Three hours* 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. 280. HISTORY OF SOCIOLOGICAL THEORIES—*Three hours*  
MR. SYMONOLEWICZ

A historical study of the development of sociology as a science, traced through its principal leaders. 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: Sociology 100 and two other courses in sociology or permission of the instructor.

#### II Social Organization

SOC. 200. MARRIAGE AND THE FAMILY—*Three hours*  
MR. SYMONOLEWICZ

The development of marriage and the family in ethnological and historical perspective. Family disorganization and problems of adjustment to modern conditions. Practical aspects of marriage. Factors responsible for marital success or failure.

Prerequisite: Sociology 100 or permission of the instructor.

SOC. 204. EDUCATIONAL SOCIOLOGY—*Three hours* MR. SYMONOLEWICZ

A study of the structure and function of formal education as a key institution in our society. Interrelationships between education and other basic institutions—family, church, economics, and government. The pattern of human relations within the school and the relation between the school and community. The interaction of the formal and informal educational agencies. Contemporary educational problems and their sociological backgrounds.

Prerequisite: Sociology 100.

SOC. 208. SOCIOLOGY OF RELIGION—*Three hours* MR. SYMONOLEWICZ

Comparative study of religious behavior and institutions. Social factors and conditions underlying religious movements. The evolution of religious groups and types of religious leadership. Religion and other major social institutions. Function and role of the church in society.

Prerequisite: Sociology 100 and Religion 101, or permission of the instructor.

SOC. 212. SOCIOLOGY OF INDUSTRY—*Three hours* MR. YOUNG

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: Sociology 100 and Economics 100, or permission of the instructor.

#### III Social Change and Social Problems

SOC. 215. URBAN SOCIOLOGY—*Three hours* THE STAFF

The development of modern cities; effects of urban life upon social organization and personality patterns; major social problems of the cities.

Prerequisite: Sociology 100.

SOC. 230. SOCIAL PROBLEMS—*Three hours* MR. SYMONOLEWICZ

A survey of most pressing contemporary social problems and an examination of current theories of social disorganization.

Prerequisite: Sociology 100.

SOC. 235. CRIMINOLOGY—*Three hours*

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: Sociology 230, or permission of the instructor.

SOC. 245. FIELDS OF SOCIAL WORK—*Three hours* 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: Sociology 100 and Psychology 100.

*IV Social Psychology*

SOC. 255. SOCIAL PSYCHOLOGY—*Three hours* MR. SYMONOLEWICZ

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: Sociology 100 and Psychology 100.

SOC. 260. CULTURE AND PERSONALITY—*Three hours*

MR. SYMONOLEWICZ

A comparative study of the development and functioning of human personality in various cultures from the point of view of social psychology and social anthropology.

Prerequisite: Sociology 255, or Sociology 265, or permission of the instructor.

*V Anthropology*

SOC. 265. GENERAL ANTHROPOLOGY—*Three hours*

MR. SYMONOLEWICZ

A general survey of the field of anthropology stressing its cultural aspects. Fossil man and prehistoric cultures; modern races and the problem of their classification; nature, characteristics and elements of culture.

Prerequisite: Sociology 100.

SOC. 270. PEOPLES OF THE WORLD—*Three hours* MR. SYMONOLEWICZ

A rapid survey of the peoples and cultures of the world in their historical relations. Distribution of races, languages, nationalities and cultures and ideological and socio-economic factors responsible for contemporary social unrest in various parts of the world, particularly among the native peoples of Asia and Africa.

Prerequisite: Sociology 100.

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 hours*

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 hours*

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 hours*

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 hours*

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 hours*

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 hours*

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.

### 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.

### 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.

### REVISED FEES – TUITION, DORMITORY

The following rates will become effective in the Fall Semester, 1956.

Tuition .....	\$275.00 per semester
Room and Board (Dormitories).....	325.00 per semester

(This rate scale supersedes that appearing on page 27, which was printed in advance of a necessary increase. For further information contact Finance Office, Chase Hall, Wilkes College.)

## BACHELOR OF SCIENCE IN ART EDUCATION

## 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
		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
Amer. Fed. Gov.....	P.S. 101	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 Secondary Ed.....	Ed 204	3	Visual Ed.....	Ed 212	1
Fund. of Speech.....	Eng 131	2	Teaching of Art.....	Ed 221	3
Intro. to Philosophy.....	Phil 101	3	Elective*.....		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.

HUMANITIES	SOCIAL SCIENCES	SCIENCES	FREE ELECTIVES
English.....16	Economics.....3	Biology.....3	Nine hours.....9
Art.....33	Education.....21	Physics.....3	
Mathematics.....6	History.....12	Psychology.....6	
Music.....3	Political Science...3		
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## ART COURSES

## ART 101-102. BASIC ART—Three hours each semester.

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 hours each semester.

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, etc. Color mediums: pastels, water colors, colored inks, colored pencils, etc. Class, two hours; studio, two hours.

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

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

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

History of art from the Renaissance to the present day.

## ART 215-216. FINE ART—Three or four hours each semester.

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.

## ART 217-218. ADVANCED FINE ART—Four hours 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 creations of space, study of two-dimensional and three-dimensional design. Study of tensions of lines, forms, lights and darks, colors and textures.

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

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

ART 243. ARTS OF PRESENTATION—*Three hours.*

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.

EDUCATION 210. STUDENT TEACHING IN ART—*Eight hours*

Students are assigned to work with experienced public school teachers and art specialists. Integrating conferences with other staff members will be arranged. Students will observe and instruct in both elementary and secondary school class-rooms. Opportunities will be provided for them to participate in school-wide activities. Prerequisite: Approval of the Department Chairman.

EDUCATION 221. THE TEACHING OF ART—*Three hours.*

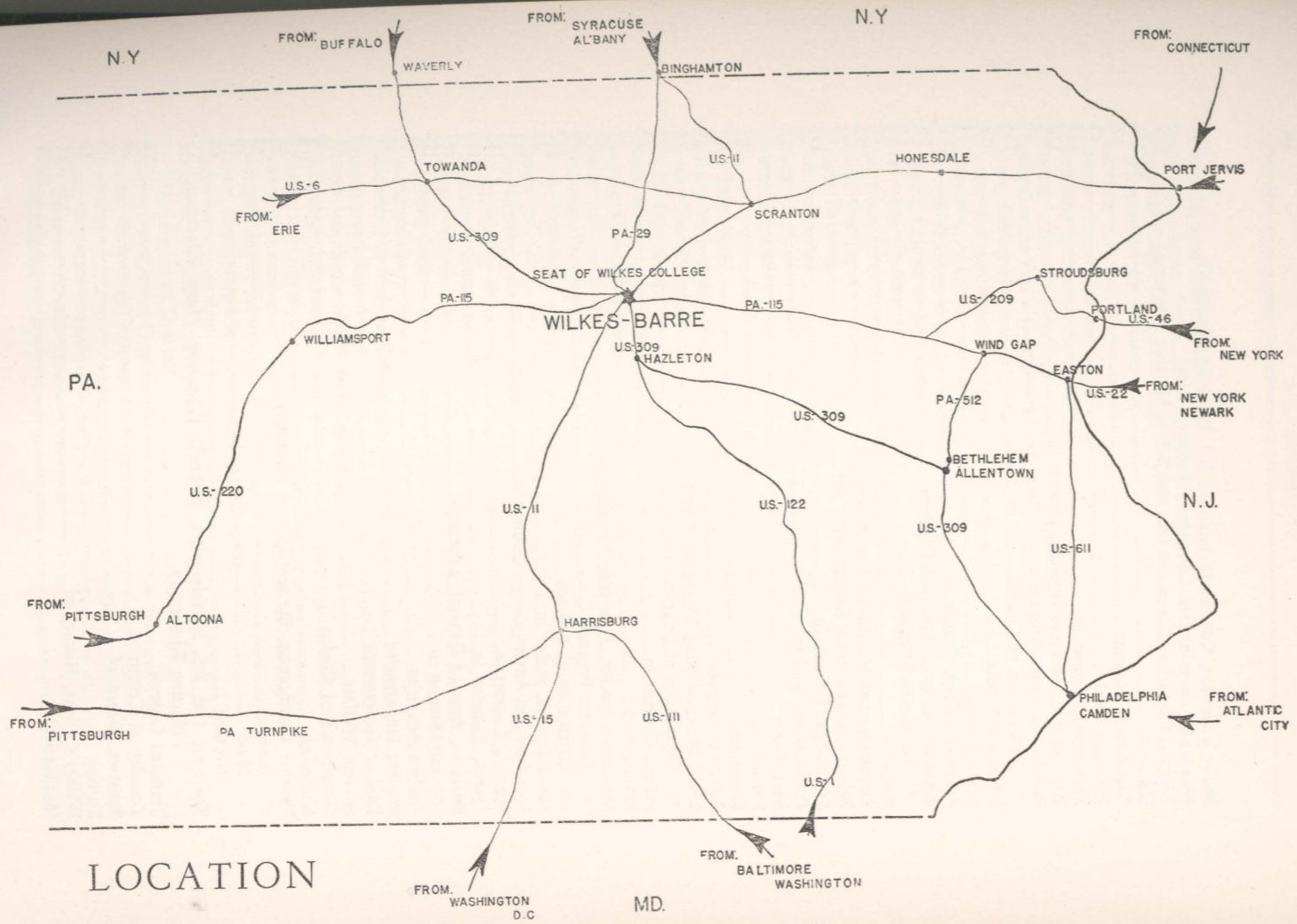
Study of contemporary practices in the teaching of art in elementary and secondary schools; study of the psychology of the creative process; adaption of various art media to the school curriculum; study of the organization of the art curricula.

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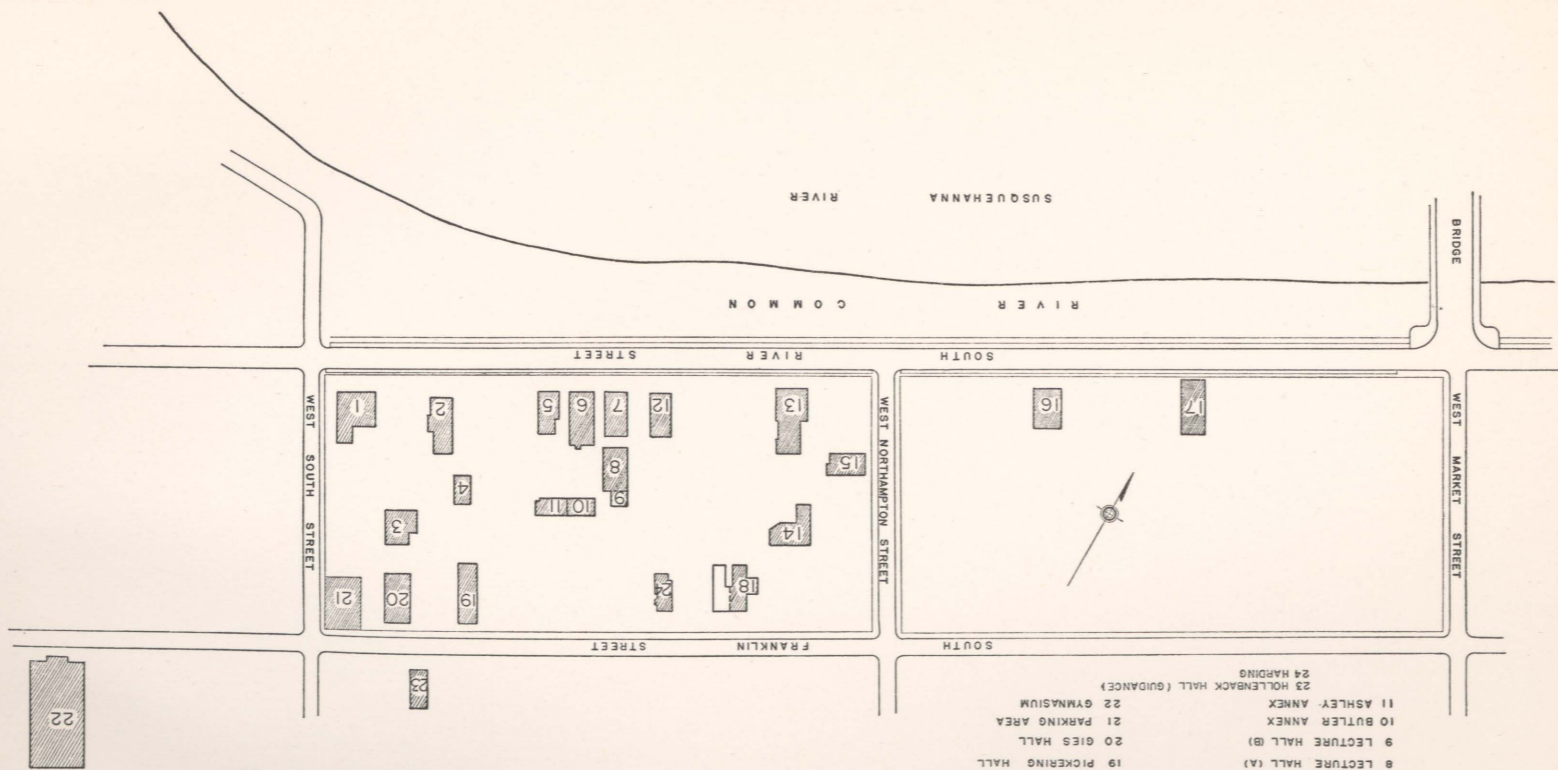
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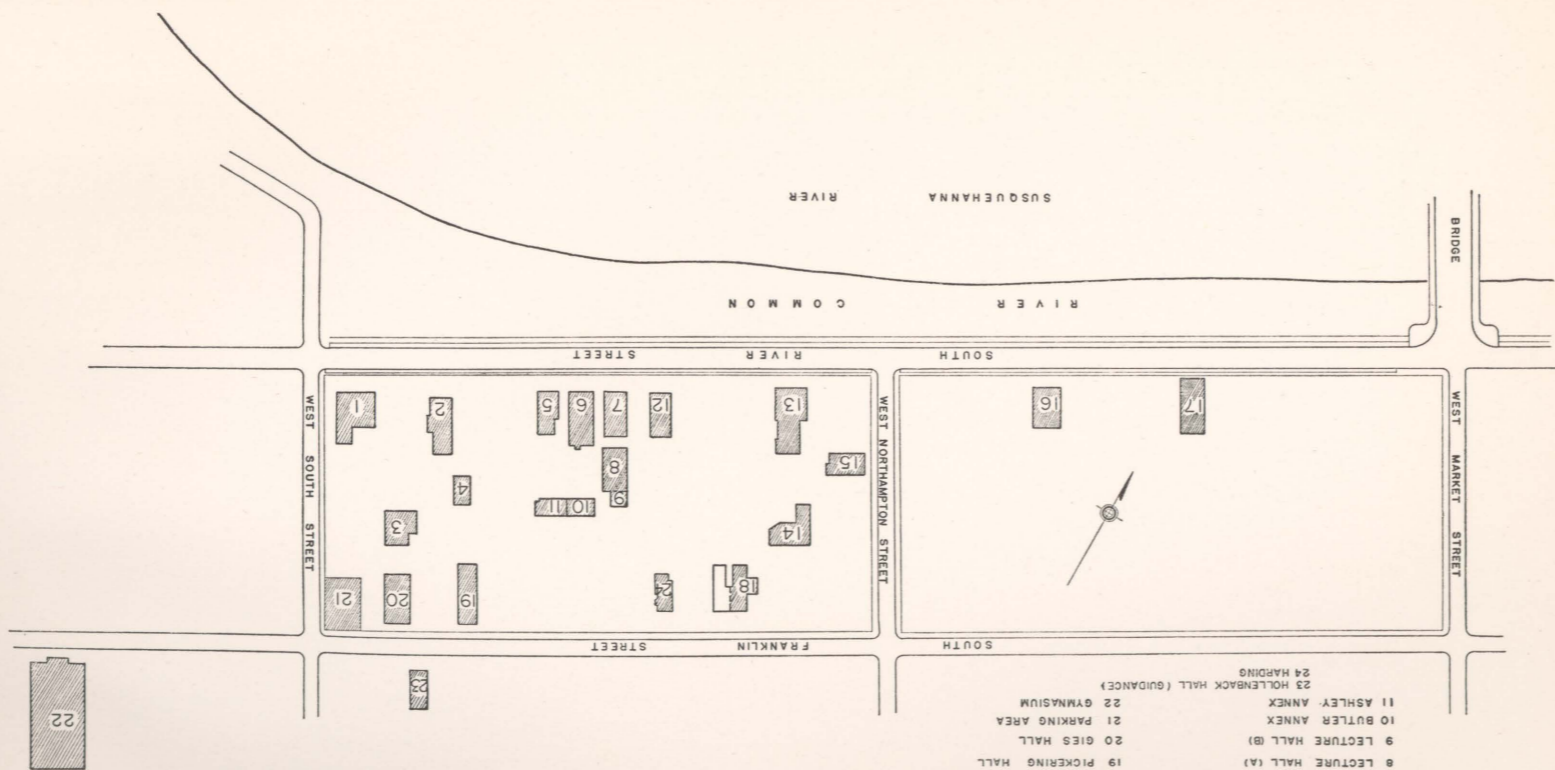
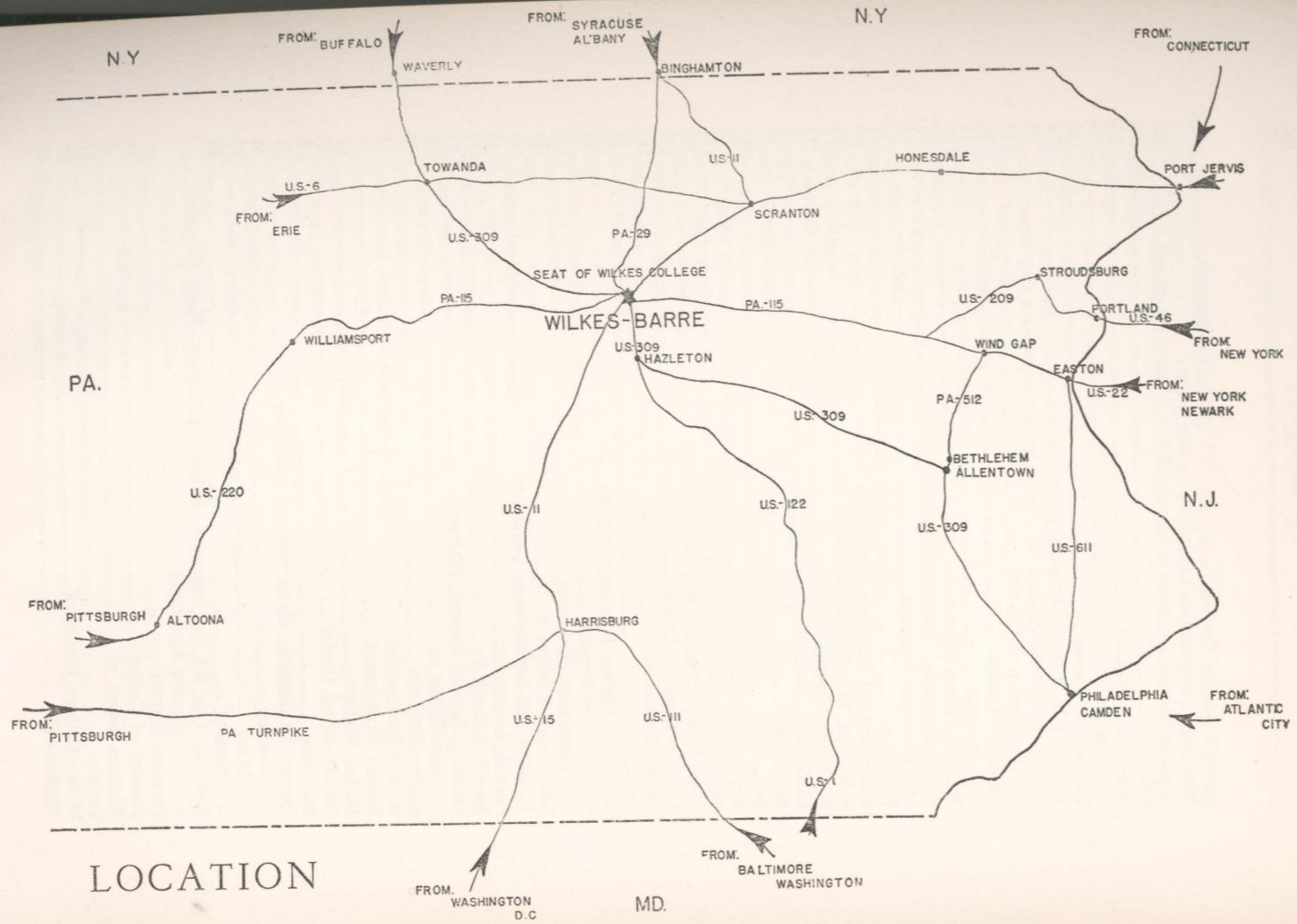
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