

CATALOGUE ISSUE — 1949-1950



ANNOUNCEMENTS — 1950-1951

WILKES-BARRE PENNSYLVANIA 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 understand-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 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 physically in the progress of the progress requires intellectual vigor, moral courage, and physically in the progress of the progress of the progress and comprehends the forces that have assured to the progress and comprehends the forces that have assured to the progress and comprehends the forces that have assured to progress and comprehends the forces that have assured to progress and comprehends the forces that have assured to progress and comprehends the forces that have assured to progress and comprehends the forces that have assured to progress and comprehends the forces that have assured to progress and comprehends the forces that have assured to progress and comprehends the progress and comprehends the progress and progress are progress. 8. He is conscious of his responsibility as a citizen, and participates constructively in the social, economic, and political life of the com-

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Movember 15, Wednesday, Trial registral and to November 15

# COLLEGE CALENDAR 1950-51

# SPRING, 1950

January 30, MondayFreshman Orientation Week begins
February 6, Monday Classes begin at 8 A.M.
March 20, MondayWeek of mid-semester examinations
March 25, SaturdayRemoval of Conditions and Incompletes
April 5, WednesdayEaster vacation begins at 5 P.M.
April 11, TuesdayClasses resume at 8 A.M.
Trial Registration to April 19
May 24, Wednesday Classes end at 5 P.M. except for Mathe-
matics and Science courses
May 27, SaturdayClasses end for Mathematics and Science courses
May 30, MondayFinal examinations begin and continue through June 8
June 3, SaturdayFounders Day
June 12, MondayGraduation

# SUMMER, 1950

June 15, 16, 17
Thursday, Friday, Saturday Registration for summer school
June 19, Monday
July 4, Tuesday Independence Day; no classes
August 8, Tuesday Final examinations begin
August 12, Saturday Final examinations end at 5 P.M.

# FALL, 1950

September 11, Monday.....Freshman Orientation Week begins

September	13,	WednesdayFreshman and Transfer Students Regis- tration
September	14,	15
Thursday	y, I	Friday Registration for Upperclassmen
September	18,	MondayClasses begin at 8 A.M.
November	8,	Wednesday Mid-Semester grades due
November	11,	Saturday Armistice Day; no classes
November	15,	WednesdayTrial registration to November 29
November	18,	Saturday Incompletes must be satisfied by this date.
November	22,	WednesdayThanksgiving vacation begins at 5 P.M.
November	27,	Monday Classes resume at 8 A.M.

December 19, Tuesday
January 3, Wednesday Christmas vacation begins at 5 P.M. January 8, Monday Classes resume at 8 A.M.
January 8, Monday
January 9, Tuesday Final registration (A-M) January 19, Friday Clarent Control of the Co
January 19, Friday
January 20, Saturday Final examinations begin
January 31, Wednesday Final examinations begin
January 31, WednesdayFinal examinations begin services at 5 P.M.

# SPRING, 1951

or Kilve, 1951
February 1, 2, 3
Thursday, Friday, Saturday. Freshman Orientation period
February 7 W. J. Freshman Orientation period
February 7, Wednesday Classes begin at 8 A.M.  March 22, Thursday Fast
March 22, Thursday. Faster words
March 22, Thursday Easter vacation begins at 5 P.M.  March 26, Monday Classes begin at 8 A.M.  Classes represented to the second secon
March 26, Monday Classes resume at 8 A.M.  April 4, Wednesday Mid-Semester grades due
April 7 Samuel Mid-Semester grades due
A. I. Saturday Incompletes must !
April 7, Saturday Incompletes must be satisfied by this date.  April 16, Monday Trial registration to April 16.
April 16, Monday Trial registration to April 28
May 25, Friday
May 26, Saturday
Wednesday Decoration D
May 30, Wednesday Decoration Day; no classes  June 7, Thursday Final examinations begin
June 7, Thursday Decoration Day; no classes  June 9, Saturday
June 9, Saturday Founders Day
June 9, Saturday Graduation

# SUMMER, 1951

	SUMMER, 1951
	June 13, 14, 15
	Wednesday, Thursday,
	- iday
,	Friday
	1 Wadne-1
	sust 7 T
4	August 11, Saturday Final examinations begin  Final examinations end at 5 P.M.
	r, Saturday Final examinations begin
	and at 5 P.M.

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# A History of the College

To provide opportunities for education comparable to those offered by other communities of the nation, Bucknell University, in 1933, established a two-year center in Wilkes-Barre and named it Bucknell University Junior College. Prior to that year, Wilkes-Barre and the Wyoming Valley were 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 this 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 in Wilkes-Barre enabling students to finish their Junior and Senior years at Wilkes-Barre. At the same time, 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.

World War II deterred the growth of the College for a period of years, but the impetus to education resulting from war experiences accelerated its development in the years immediately following the cessation of hostilities. Early in the war, 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. For several years following the war, veterans were a majority, as in most colleges. Since September, 1948, however, they have been outnumbered by non-veterans, and their numbers will continue to diminish during the next two or three years.

During the years in which the College offered only two years of study, graduates transferred to more than 100 four-year colleges and universities; in two-thirds of these colleges they made records superior to

those earned at Bucknell University Junior College. At present, only two classes have been graduated, but a surprising number of graduates have entered graduate and professional schools. Present reports show that more than 37 percent of the graduates are continuing their studies beyond the baccalaureate degree.

#### 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 citizens 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. Coyngham Hall and Chase Hall, given in 1937, were dedicated by President Marts 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. Allen 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.

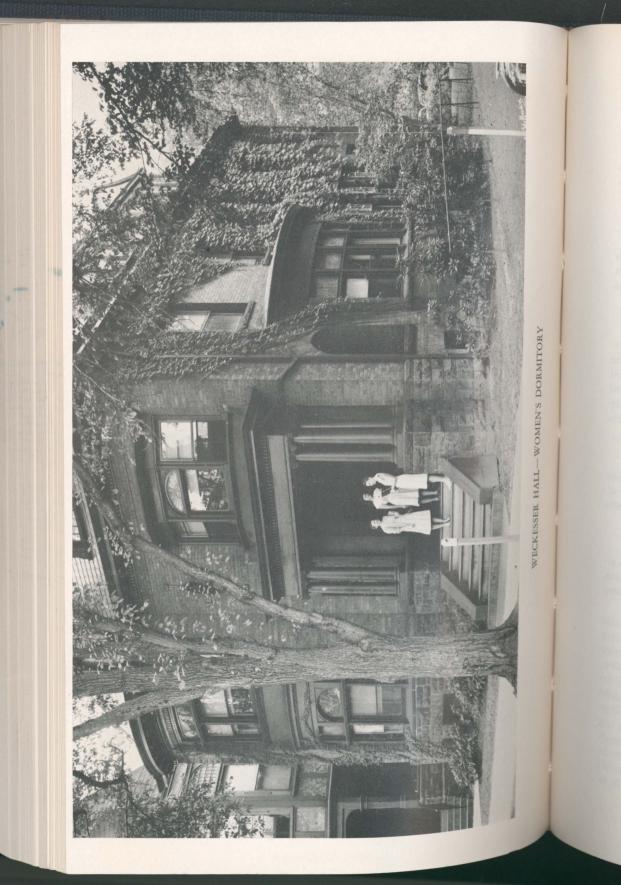
Members of the Board of Trustees gave the College three additional buildings during 1945 and 1946, which were subsequently named Isaac Barré Hall, in honor of the English statesman friendly to the cause of the American Revolution, Zebulon Butler Hall in honor of the American patriot, and Gies Hall, named in memory of Paul Gies, former 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 Roccena 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, the construction of which is planned for 1950.

In 1949, three additional properties were acquired. Timothy Pickering Hall was purchased by the Board of Trustees in the spring; and in December, 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.

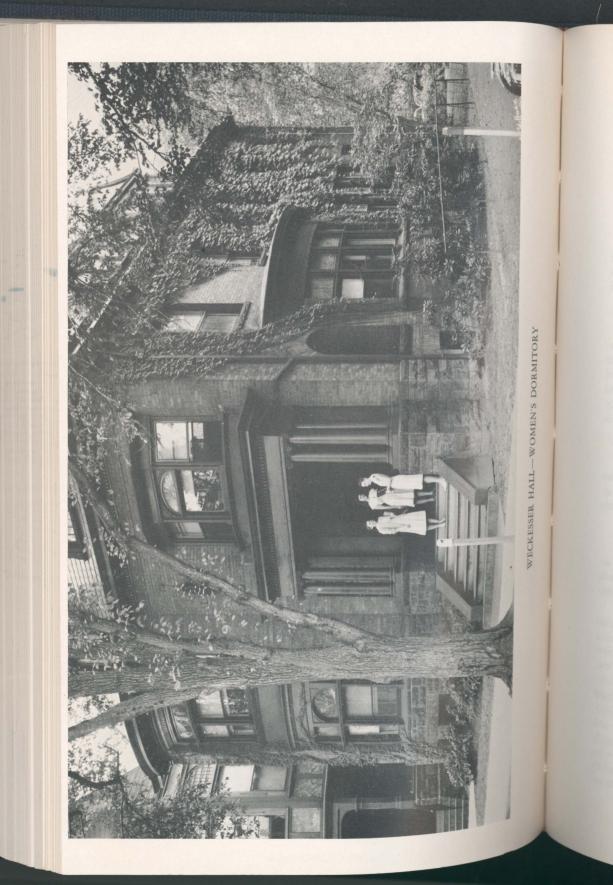
Monetary gifts paralleled these other gifts and purchases, and permitted the equipping, adaptation, and erection of new buildings. In the eleven years following the promise of autonomy by the University, assets have been increased by more than \$2,000,000.



CAMPUS LANDMARK



General Information



General Information

#### CURRICULA

The College offers courses leading to degrees in Liberal Arts, Chemistry, Biology, and Commerce and Finance. In addition, the first two years are offered in Physics and Engineering; thereafter, the student who successfully completes these courses may transfer to some other institution as a Junior.

#### TERMINAL CURRICULA

To students who desire only two years of college or who are unable to make arrangements for a four-year college course, the College offers two-year terminal courses in music, secretarial work, medical secretarial work, radio production, and laboratory-technician training.

### EXTENSION CLASSES

Extension courses from Bucknell University are offered for both undergraduate and graduate credit. Selected courses have been offered in the evening during the past ten years, and now courses are being offered through which students may obtain a special training or credit toward a degree. Persons seeking a Master's degree from Bucknell University may take six hours in Wilkes-Barre, but must take the remaining hours in residence at Lewisburg.

#### ACCREDITMENT

Wilkes College is accredited by the Department of Public Instruction of the State of Pennsylvania, and by the Middle States Association of Colleges and Secondary Schools. The Liberal Arts and Science Programs are also approved by the University of the State of New York.

Students applying for admission to the College are requested to arrange a personal interview with the Director of Admissions or the Deans, and to submit their application, accompanied by a \$5.00 fee, on forms provided by the College.

Interviews are a part of the admissions program and may be scheduled at the College. In the event the home of the student is some distance from the College, the Director of Admissions will arrange an interview at a time and place that are mutually convenient. During the interview, arrangements for taking admissions tests will ordinarily be made. However, a student who has taken "College Board Examinations" may submit these results in place of the examination ordinarily given by the College.

Following receipt of the application the Director of Admissions will obtain an official transcript from the high school or college formerly attended by the student. Upon receipt of this record the Committee on Admissions will consider the full record of the applicant and will notify the applicant as early as possible. It takes much time, however, to as-

semble all reports required by the committee and it is well to allow a minimum of two weeks for action, although in some instances slowness in the submission of transcripts may delay action for a month or more.

# ADVANCED STANDING

Students wishing to transfer from other colleges will follow the usual procedures for admission. They will request the institution last attended to forward a transcript and a letter of honorable dismissal. The committee on advanced standing will then make a tentative evaluation, and a faculty adviser will counsel the student concerning his new schedule. This schedule will be based upon the work previously completed and upon the educational objective of the student at Wilkes. Upon the completion of the first term, a final evaluation will be made and the credits

Students who are equipped to enter advanced courses in college may do so upon the passing of a placement examination. They will not receive credit for the courses that are skipped, but they will be saved the necessity of repeating work which they have already covered outside of college. A record of this procedure shall be entered on the student's transcript so that the report may be complete.

Grades will be given to students at mid-semester and at the end of

A five-point grading system is used in which letters designate the caliber of the work. The significance of each letter is given below.

B—Above Average

C-Average

D—Below Average, but passing

F—Failure

Inc-Incomplete: Work must be made up by a specified date

or the incomplete will automatically become an F. WP-Withdrew Passing: Will be given to students who withdraw from a course when their grade is D or higher.

WF-Withdrew Failing: Will be given to students who withdraw from a course when their grade is F.

To translate letter grades into numerical averages the following numerical values are given for each semester hour of credit receiving an

A B		 													3	
D				*	٠										1	
D																
					•	•							. ,	 . ,	0	

This system of grades and points is used to determine eligibility for advancement and graduation in the following manner:

A student earning an "A" in a three hour subject will gain three points for each hour for a total of nine points. A "C" in a three hour subject will gain one point for each hour or a total of three. His average would be computed by dividing the total number of points gained by the number of credits of work taken.

# REQUIREMENTS FOR CLASS ADVANCEMENT AND GRADUATION FOUR-YEAR COURSES

Class Sophomore Junior Senior Graduation	Credits 30 60 90 As specified	Point Average .5 .7 .9
Sophomore Graduation	TWO-YEAR COURSES 30 60*	.7 1.

Any student not attaining the grade necessary to advance him to the next class shall 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 shall be dropped from college.

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

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

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

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

#### REGISTRATION

Students are required to register at the beginning of each term on the dates designated for this purpose. Failure to comply with this regulation necessitates an additional charge.

The maximum registration recommended for each course and covered by the tuition charge of \$225 per semester is indicated in the program of courses. Any student taking a load beyond that which is recommended must maintain at least a "B" average and must pay for each additional hour at the usual hourly rate.

#### ATTENDANCE

Attendance at all classes is taken for granted and repeated absence is deemed a sufficient cause for failure.

Satisfaction of the requirements for attendance at assemblies is also expected. Failure to meet these requirements may lead to the withholding of all credit.

#### FACULTY

The value to be derived from a college is less dependent upon material equipment than upon the character of its teachers and the quality of their interest in the students. The faculty of the College have been carefully selected for their training, experience and personalities. They have been granted degrees by forty colleges and universities in the United States, Canada, and Europe: Alabama, Boston University, Bryn Mawr, Bucknell, Chicago, Columbia, Comenius, Cornell, Cracow, Delaware, Dickinson, Duke, Harvard, Hunter, Louisiana, Michigan, Minnesota, New England Conservatory of Music, New Rochelle, New York, North Carolina, Northwestern, Peabody Conservatory of Music, Pennsylvania, Pennsylvania State, Pittsburgh, Stanford, Syracuse, Tennessee State, Warsaw, Washington and Lee, Western Reserve, Wisconsin, Wyoming, Yale, Zagreb. A cosmopolitan group, they have taught in schools and universities throughout the United States and Europe, and their travels have taken them to all parts of the world. They bring to the College a breadth of experience and of vision that enables them to treat their subjects in large perspective, and they bring an academic preparation that fits them to give the intensive training essential to their various

# TRANSFER OF CREDITS

When the College offered only two years of study, graduates transferred to more than one hundred colleges. Now that four years of college work are offered on this campus, transfer is still possible but no longer necessary except for degrees in Physics, Engineering, and Music Education.

<sup>\*</sup> Plus Physical Education.

Approximately forty percent of the Wilkes graduates have entered graduate and professional schools. It is recommended that students wishing to extend their education beyond the Bachelor's degree take the Graduate Record Examination or another appropriate professional examination in their Senior year. These examinations are generally required by graduate and professional schools and it is best to take them at the end of the college course.

#### EXPENSES

The flat tuition rate adopted by the College enables a student to gain an education in most of the curricula outlined in the bulletin at the rate of \$225.00 per semester for tuition, provided the normal load of semester hours as stated in the bulletin for each semester is not exceeded. An additional charge of \$15.00 will be made for each semester hour in excess of the normal load.

#### SCHEDULE OF RATES

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

Tuition	\$225.00
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—Bucknell University Extension	20.00
Music—individual instruction:  One lession a week per semester of fifteen weeks in piano, organ, or wind instrument  One lesson a week per semester of fifteen weeks in violin, viola or 'cello  One lesson a week per semester of fifteen weeks in voice with Mrs. Hawkins  One lesson a week per semester of fifteen weeks in voice with Mr. Isaacs	35.00 45.00 35.00 50.00 5.00
Rental of practice room per semester  Diction Laboratory—part-time voice students	5.00

IVIUSIC-	-grou	P	insti	u	ction
	hour				

One hour lesson a week per semester of fifteen weeks in violin, viola or 'cello, each group to consist of not less than three or more than five students	
inve students	30.00

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

Student Activity fee for those taking less than 14 or more than 9 semester hours, or for any part-time student 

Charges for Summer School (eight weeks) 

Dormitory charges per semester:

Board and Room
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# Special Charges:

Application fee to accompany application for admission	
change of schedule per credit hour	5.0
Change of schedule per credit hour  Special Examination	1.0
Transcript (No charge f	5.0
Late I fial Registration	1.0
Late Final Registration	5.0
Graduation fee (fam.	5.00
convocation fee (two-year students)	15.00
Charges are subject to 1:	7.50

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

# PAYMENTS

Bills for tuition, fees, and incidentals are payable at the beginning

The tuition of \$225 includes the cost of such student activities as athletics and dramatics to which no admission is charged.

No students may take a mid-term examination until satisfactory arrangements have been made with the Comptroller for the payment of all bills. More than the comptroller for the payment of all bills. 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 men called from the College by the Selective Service Act.

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 Dean, Registrar, or President.

# Student Welfare

#### GUIDANCE CENTER

The Guidance Center of the College, which was set up in April, 1945, offers its services to veterans seeking entitlement under the Vocational Rehabilitation Act and "G. I. Bill." A staff of experienced Vocational Counselors and a Testing Department, headed by a clinical psychologist, are on hand five days a week to help veterans and students explore their backgrounds, capacities, interests, and general qualifications for the purpose of developing or forwarding a vocational plan.

#### CAREERS LIBRARY

The Careers Library has taken its place on the campus because the College recognizes its responsibility for helping a student to launch his career with maximum effectiveness. The 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 which is 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, and are 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 a feature. In the library there are some 600 catalogs and bulletins from more than 500 American colleges and universities, in addition to announcements from foreign institutions of learning, especially at the graduate or professional

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

Counseling at Wilkes College is considered to be one of the most important ways in which we are able to help in the development and growth of the student. Each student's personal, educational, and vocational objectives are considered at the time of application, so that, insofar as possible, the academic program can be planned to enable him to realize these objectives.

Upon entering the College, each student participates in a testing program, the purpose of which is to provide all of us who are concerned with his progress with information about his abilities, interests and aptitudes. Through a program of faculty advisement, each student has a continual opportunity to consult with a member of the faculty for the purpose of discussing scholastic progress and any social or personal problem with which the student needs help.

The Deans of Men and Women cooperate with faculty advisers in providing the student with information and guidance wherever possible. Students are urged to avail themselves of these opportunities for help. Realizing that the problem of choosing a career is a realistic and pressing one for most college students, the College has instituted a Careers Library, located in the Guidance Center, which makes available to the student a wealth of current information about hundreds of occupations, professional schools, and graduate schools.

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

# PHYSICAL EDUCATION

Intercollegiate sports schedules are maintained in football, basketball, wrestling, baseball, tennis, soccer, golf, and swimming. Colleges within the state and in adjacent states are met in these sports. Men may substitute an intercollegiate sport for physical education courses if they meet departmental requirements. A program of intramural sports and physical education gives every man an opportunity to participate. Basketball, boxing, handball, volley ball, bowling, swimming, and table tennis are some of the sports available. Physical Education requirements are waived for veterans.

The physical education program for women includes folk and modern dancing, bowling, swimming, tennis, field hockey, basketball, and softball.

### 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. This week also gives the new students the opportunity to become acquainted with one another and to learn about student activities.

During the first term the Freshman class is divided into small sections which meet once a week with a representative of the faculty. These groups discuss informally, and with as little faculty participation as possible, some of the problems of every day living and 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.

#### SPECIAL INTERESTS

Many students have interests and abilities that lie outside the field of studies. Activities supplementing the academic program provide opportunities for the expression and development of interests and talents in such recreational and semi-professional fields as athletics, dramatics, debating, journalism, and choral work. Special clubs include Economics, Pre-Medical, Engineering, Debating, French, German, Spanish, International Relations, Psychology, Sociology, Cue 'n' Curtain, Lettermen's, Literary, etc. All are conducted by students with the guidance of a member of the faculty, and care is taken to prevent their conflicting with the time needed for study.

#### COMMUNITY PROGRAMS

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

The character and extent of such work may be determined by means of a job analysis, thus assuring the practicability of the work. Some idea of the services that are available can 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 is 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. Also, a refresher course has been offered for chiropractors from eastern Pennsylvania to prepare 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.

### COMPETITIVE SCHOLARSHIPS

A number of scholarships are available through the interest and generosity of friends of the College. They are awarded to students who rank in the upper quarter of their high school classes and who receive the highest grades in competitive examinations.

Scholarship winners must maintain at least an average of 75 in order to retain the scholarship. The Deans will review the records of all scholarship holders at the end of the academic year.

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

All competitors must apply for admission to the College to be eligible for the Scholarship.

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

The holder of a scholarship must take the full course that is scheduled in the catalog in order to receive the funds that have been appropriated to his account.

# STUDENT EMPLOYMENT

More than one-third of the students earn some part of their College expenses. Students desiring work should apply to the Director of Placement. A number of part-time jobs are available. Requests for student help are frequently received from local business offices and referred to the placement office.

### PLACEMENT SERVICE

A placement office for students and graduates is located in the Guidance Center. All students interested in obtaining employment are requested to register in this office. Employers seeking students for parttime employment are requested to make inquiries at this office.

Graduates of the College, or those in their last year who seek immediate employment upon graduation, are invited to register.

The Seligman J. Strauss Lodge of B'nai B'rith is sponsoring this office by contributing to its maintenance.

# Preparation for Professions and Vocations

Training and skill are required in many fields, but they are not enough. The world needs men possessing broad vision as well as technical competence. The telegraph, radio, airplane, and finally the atomic bomb 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 of 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 may enroll for the Bachelor of Arts course; he may major in one of the Social Studies and choose electives in English composition, literature, and other subjects useful

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 are also adapted for those who plan to teach these subjects.

# BUSINESS ADMINISTRATION

Training applicable to most fields of business is offered in the two programs of the Commerce and Finance curriculum. The General Course is for those desiring a broad business background, and the Secretarial Course is for secretarial positions.

The Commerce and Finance curriculum covers business principles and practices; it also includes Liberal Arts electives. This diversification of program enables the student to secure a comprehensive foundation for business, secretarial, public service, or teaching career. Young men and women with this broad cultural background find themselves eligible for opportunities closed to those lacking such training.

#### CHEMISTRY

Modern industries offer many opportunities to the chemist and chemical engineer. Today, most large industries employ both chemists and chemical engineers. In the smaller industries either may be called upon to do the work of both. The chemist usually works in the laboratories, analysing, studying, and perfecting procedures and developing new processes, new methods and new uses. He meets the chemical engineer in the pilot plant where together they design and construct, on a small scale, the new manufacturing plant. The duties of the engineer may include design, construction, or operation of the chemical plant. Managers of industrial and chemical plants need technical training, as do salesmen for specialized products, buyers for manufacturing concerns, employees in many fields of government service and other activities. The chemical industries include coke, gas, dyes, gasoline, and other petroleum products, rubber, textiles, explosives, cement, metallurgy, plastics, nylon, paints, ceramics, fertilizers, solvents, leather, drugs, light and heavy chemicals and other substances. Last, this is an atomic age and to be an intelligent modern, one can scarcely gain too great an understanding of chemistry.

#### 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 if they make their plans in advance. 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.

Two years of the engineering curriculum afford a foundation for a wide range of occupations. Students desiring such technological training should consult the Registrar or the Engineering faculty when planning their programs.

#### 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

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

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

#### I.AW

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 special 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 and proficiency in typewriting is desirable.

#### MUSIC

The aim of the music curriculum is two-fold: to interest the many in music as an avocation which may lead to active participation in music organizations or to a greater pleasure in hearing the master works of music; second, to assist the few who have special talents along the road to professional careers as teachers or performers. Students who concentrate in music may commence their study of applied music at Wilkes. High quality pre-college training is very desirable, however. Although music majors must expend their greatest efforts upon music, both theoretical and applied, the schedule is so arranged that 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 various medical schools. stricted their enrollment, and most of them scrutinize closely the qualifications of applicants. Medical aspirants should determine as soon as Possible the demands they must meet.

#### MINISTRY

The various churches differ widely as to the training required of prospective ministers. The student should learn the requirements of his denomination and its divinity schools. In general, the Liberal Arts course, with major or electives in Religion and Bible, is appropriate.

#### NURSING

The demand for nurses with college training has increased with the progress of medical science and the wide adoption of highly skilled scientific techniques. A number of hospitals and universities now offer three years of training with a Bachelor of Science degree to student nurses who have completed two years of college. For those who wish to make a life work of nursing, and who aspire to administrative positions in the major hospitals, this course is recommended.

Demand for extended training has been further accelerated by the recent expansion of health services in Federal Agencies and by increased governmental support to medical programs.

#### 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 nor understood. The tools of communication, 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 employment 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, industry and personnel.

#### SOCIAL WORK

The demand for trained social workers has grown enormously in recent years. Taxpayers rebel against the wastefulness of haphazard distri-

bution 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, 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; teachers 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 some specialization in teaching subjects. Bucknell University is authorized by the State Department of Public Instruction to prepare secondary teachers in most of the usual fields of high school instruction and offers work in Wilkes-Barre for the benefit of school teachers and Wilkes College students.

# GENERAL OPPORTUNITIES

Promotion or advancement is often made possible by additional training. It is sometimes practicable for students who are employed 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.

Anyone interested in some special opening not included in this list of the major professions and vocations should consult the Director of Admissions.

# 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 developed through academic work alone. All students are 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.

#### DRAMATICS

Students of the 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 major and experimental productions.

#### COLLEGE BAND

The College band is organized for the furtherance of instrumental experience, performs at all 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 distributed to 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 three times each week for the study of choral literature covering various periods of music history. Several programs are presented each semester before the College community and the general public.

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

#### COLLEGE ORCHESTRA

All students interested in forming an orchestra should consult with the director of the School of Music. The College is eager to assist in the development of instrumental music and an orchestral society will be organized as soon as student interest and abilities are discovered on the campus.

#### PUBLICATIONS

Amnicola, an annual 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, golf, soccer, swimming 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 intra-mural sports and physical education gives every man an opportunity to participate. Basketball, boxing, handball, volleyball, bowling, swimming, and table tennis are some of the sports available.

The athletic program for women includes dancing, folk and modern; bowling; swimming; tennis; field hockey; 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 changing and current interests.

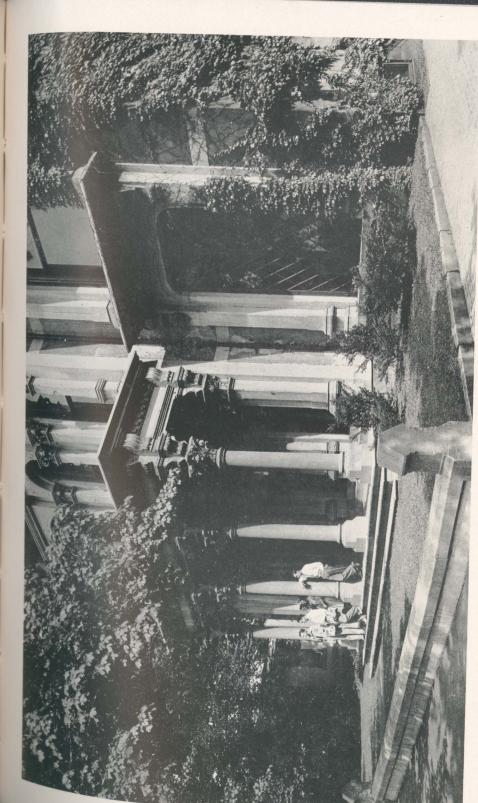
# College Curricula

The curricula include courses leading to the Bachelor of Arts and Bachelor of Science degrees, and a number of shorter programs requiring only two or three years of college training.

The degree courses include four-year programs in the Liberal Arts, Biology, Chemistry, and Commerce and Finance, and two-year programs in Physics, Engineering, and Music Education. Students completing these two-year programs satisfactorily may transfer credits for their first two years of work to selected colleges offering degrees in these three fields of study.

The two- and three-year programs lead to no degree but do give professional, semi-professional, and technical training required in a number of occupations. Among the occupations which may require two or three years of college background are dentistry, chiropractic, osteopathy, medical technology, laboratory technology, secretarial work for business and medicine, music, and radio.

Special programs may be arranged for persons wishing to select courses that will satisfy individual interests or needs.



CONYNGHAM HALL—ENGINEERING

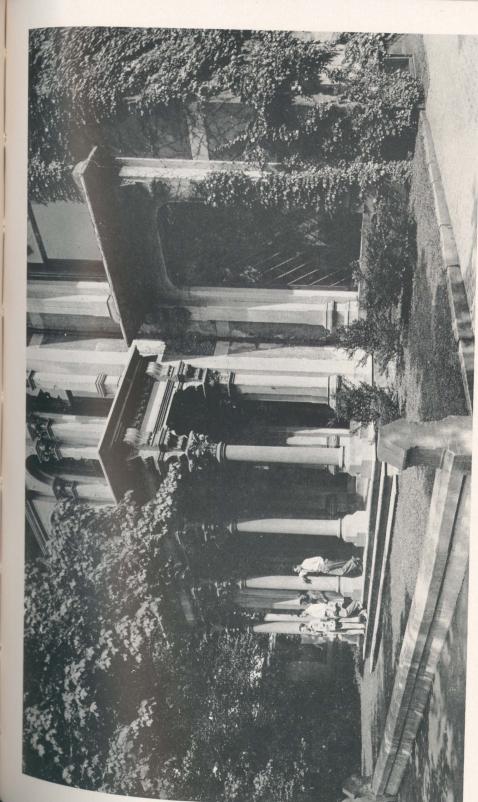
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CONYNGHAM HALL—ENGINEERING



STERLING HALL—MEN'S DORMITORY

Degree Courses



Degree Courses

#### 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. It is expected, however, that ability in expression and interpretation will be developed.

#### 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.

Philosophy

Religion

	DIVISIONS	
Humanities	Social Sciences	Sciences
English Foreign Languages Mathematics Music	Economics Education History Political Science	Biology Chemistry Physics Psychology

#### SELECTION OF A MAJOR

Sociology

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 wishing to major in Biology, Mathematics, or Music must choose their major when they enter

A major may be taken in any subject listed in the divisions except Chemistry, Education, and Physics. The requirements for each major are specified preceding the description of courses.

A major may also be taken in Social Science. The Social Science major requires a total of 36 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 resi 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 above requirements. Hence, a student preparing to teach Social Studies in the public schools will receive credit toward the 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

		110MANITIES			
Major Subject	Major	Humanities	Social Sciences	Sciences	Free Electiv
English Foreign Language Mathematics Music Philosophy-Religion	24 24 46	37 31 39 45 37	15 15 15 15 15	6 6 11 6	38 44 36 8 38
	Soc	CIAL SCIENCES	S		
Major Subject	Major	Humanities	Social Sciences	Sciences	Free Elective

Major Subject	Major	Humanities	Social Sciences	Sciences	Free Elective
Economics History Political Science Sociology Social Science	24 24 24	37 37 37 37 37 37	15 15 15 15 15	6 6 6 6	38 38 38 38 26
		SCIENCES			

Major Subject	Major	Humanities	Social Sciences	Sciences	Free Electiv
Biology	39 24	37 37	9	13	24 36

# BACHELOR OF ARTS

General requirements for all Majors other than Biology, Mathematics, and Music

#### FRESHMAN YEAR

First Semeste	r			Second Semester		
Title	Number		Cr.	Title Num	ber	Cr.
Biological Science	.Eng 10 .101 or 10	01 03 01 \	3 3 3	Nar. and Des. Writing Eng Fundamentals of Speech Eng Foreign Language <sup>1</sup> 102 or Alternates: Hist. of W. Civilization Hist Amer. Hist. since 1865 Hist Alternates:	131 104 102)	3 2 3
Introduction to Music Physical Science Phys. Ed. and Hygiene	.Phys 10	00	3 1 16	Introduction to Music. Mus Physical Science. Phys Phys. Ed. and Hygiene. P.E.	100)	3 1

#### SOPHOMORE YEAR

Third Semester			Fourth Semeste	r	
Title Nun	mber	Cr.	Title	Number	Cr.
World Literature. Eng Fofeign Language <sup>1</sup> . 103 of Alternates: Fundamentals of Math. Mat History of Religions. Rel Intro. to Philosphy <sup>2</sup> . Phil Alternates: <sup>3</sup> Intro. to Economics. Ec Intro. to Education. Ed American Federal Govt. P.S. General Psychology. Psy Intro. to Sociology. Soc Elective. Physical Education. P.E.	h 101 101 101 100 101 100 101 100 100	3 } 3 } 6	World Literature Eng Foreign Language¹ 104 of Alternates: Algebra or Trig Mat Hist. of Religions Rel Intro. to Philosophy² Phil Alternates³: Intro. to Economics Ec Intro. to Education Ed American Federal Govt. P.S. General Psychology Psy Elective Physical Education P.E.	or 200 h 107–10 101 101 100 101 101 100 101	4 3 9 3 6
		17			17

### JUNIOR YEAR

Fifth Semester Sixth Semester

Major and Electives-30 hours

#### SENIOR YEAR

Seventh Semester

Eighth Semester

Major and Electives—30 hours

1 The level of the course will depend upon the achievement of the student.
2 Philosophy is required in either the third or four semester.
3 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 Biology

# FRESHMAN YEAR

First Sem		MAN YEAR
Title Composition Fundamentals of Speech Foreign Language <sup>1</sup> Alternates: Hist. of W. Civilization Amer. Hist. to 1865 College Algebra Phys. Ed. and Hygiene	Number CrEng 101 2Eng 131 2I01 or 103 3Hist 101 3Hist 107 3	Second Semester   Title   Number   Cr
	16	78
	15	16

# SOPHOMORE YEAR

Third Semess Title General Zoology General Inorganic Chem. Advanced Exposition Foreign Language¹ Physical Education	Number Bio 101 Chem 101 Eng 105	4	Fourth Semester  Title Numb  General Zoology Bio Inor. Chem. & Qual. Anal. Chem Foreign Language 104 or General Psychology Psy Physical Education P.E.	102 102 200	5 6 3
		16			18

### JUNIOR YEAR

Fifth Semester	JOINIO	R I EAR		
1 1118	mber Cr. 201 5 151 4 101 3 3-4 15-16	Sixth Semester Title Num Histology and Organology Bio World Literature Eng Electives	mber 202 152	Cr. 5 4 6

## SENIOR YEAR

Same of a	51	ENIO	R YEAR	
Seventh Semester  Title  Genetics Num Physiology Bio Seminar in Biology Bio Electives	nber 261 251 291	Cr. 5 4 1 6	Eighth Semester Title Num Embryology Bio Physiology Bio Seminar in Biology Bio Electives.	Cr. 5 4 1
171		16	Make Make Make Make Make Make Make Make	16

The level of the course will depend upon the achievement of the student. Electives must be taken outside the fields of science.

# BACHELOR OF ARTS Major in Mathematics

# FRESHMAN YEAR

	Second Semester
First Semester           Title         Number         Cr.           Biological Science         Bio 100         3           Composition         Eng 101         3           Foreign Language <sup>1</sup> 101 or 103         3	Title Number Cr.  Nar. and Des. Writing Eng 102 3  Fundamentals of Speech Eng 131 2  Fundamentals of Language 102 or 104 3
Algebra and Trig. or Math 105 College Algebra and Math 107 Plane Trigonometry Math 109 Phys. Ed. and Hygiene P.E. 101	Analytic Geometry Math 122 4 Analytic Geometry Mus 100 3 Intro. to Music P.E. 102 1 Phys. Ed. and Hygiene P.E. 102
15-10	

# SOPHOMORE YEAR

The second secon		Fourth Semester	
Third Semester  Title Number  World Literature. Eng 151  Foreign Language <sup>1</sup> . 103 or 200  Differential Calculus Math 125  General Physics. Phys 201  Physical Education P.E. 103	4 3 4 5	Title Numbe World Literature Eng 1 Foreign Language 1004 or 2 Integral Calculus Math 1 Physical Education P.E. 1 Electives.	152 4 200 3 126 4

# JUNIOR YEAR

Fifth Semester	1 (		Sixth Semester Nun	aber Cr	
Alternates: Hist. of W. Civilization Hist Amer. Hist. to 1865. Hist Mathematics Elective. General Psychology Psy Intro. to Economics Ec Principles of Economics Ec Intro. to Sociology Soc	101 107 100 100 101 100	3 3 3 3 3	Alternates: Hist. or W. Civilization. Hist Amer. Hist. since 1865. Hist Mathematics Elective. Phil Intro. to Philosophy. Phil Amer. Federal Govt. P.S. Electives.	101	3 3 3 3 3 5 -5 -17

# SENIOR YEAR

Seventh Semester	Eighth Semester	C
	Title Mathematics Elective Electives	1

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

# BACHELOR OF ARTS Major in Music

First Semester	FRE	SHMA	N YEAR Second Semester		
	nhae	Cr.		ber	C.
				100	Cr.
Biological Science Bio		3	Nar. and Des. Writing Eng	102	3 2
CompositionEng		-	Fundamentals of SpeechEng	101	
Foreign Language <sup>1</sup> 101 ro	0 103	3	Foreign Language <sup>1</sup> 102 or	104	3
Alternates:	101)	Old -	Alternates:	102)	
Hist. of W. CivilizationHist			Hist. of W. Civilization Hist		3
Amer. Hist. to 1865Hist	107	)	Amer. Hist. since 1865 Hist	108)	
Alternates:	100		Alternates:	100)	
Intro. to MusicMus	100	3	Intro. to MusicMus	100	3
Physical SciencePhys	100	)	Physical SciencePhys	100)	
Music, Applied	101	1	Music, Applied	200	1
Phys. Ed. and HygieneP.E.	101	_1	Phys. Ed. and HygieneP.E.	102	1
		17			16
Third Semester	SOPE	номо	RE YEAR Fourth Semester		
				han	C-
		Cr.	Title Num		Cr.
Foreign Language 103 o	1 200	3	Foreign Language <sup>1</sup> 104 or	200	3
Alternates:	- 110	1	Alternates:	110	
Mathematics107, 109, 115 or	110	2	Mathematics 107, 109, 115 or		2
History of Religions Rel	101	3	History of ReligionsRel		3
Intro. to PhilosophyPhil	101	)	Intro. to PhilosophyPhil	101)	
Alternates:	100	\	Alternates:	200)	
Intro. to EconomicsEc		938 4	Intro. to EconomicsEc	100	
			Intro. to EducationEd	101	
Amer. Federal GovtP.S.			Amer. Federal GovtP.S.	101 }	3
General Psychology Psy	100	BENDER	General PsychologyPsy	100	
Intro. to Sociology Soc	100		Intro. to SociologySoc	100)	
Music, Applied		1	Music, Applied		1
Music, Theory Mus	101	5	Music, Applied	102	5
Physical Education P.E.	103	1	Physical EducationP.E.	104	1
		16		1	16
Fifth Competer	It	JNIOR	YEAR Sixth Semester		
Fifth Semester					
Title Nun	nber	Cr.	Title Nun.	aber	Cr.
Alexander Alexander Literature	151	4	World Literature Eng	152	4
THE CO.			Alternates:		
Intro. to EconomicsEc	100		Intro. to EconomicsEc	100)	
P C Pederal Govt P C	101	2	Amer. Federal GovtP.S.	101	2
Down Down	100	> 4	General PsychologyPsy	100	3
	100	1	Intro. to SociologySoc	100	
	,	2	Music, Applied	)	2
Music, Theory Mus	103	5	Music, Theory Mus	104	5
Elective	203	3	Elective	101	3
		17		-	17
	0		37		1/
Seventh Semester	SI	ENIOR	YEAR Eighth Semester		
Title Nun	nber	Cr.	Title Nun	ber	Cr.
			Music, Applied		3
Music, History	100	)	Music, HistoryMus	110)	
Music, Instantia	200	} 3	Mus		3
Music A Music Mus	215	3	Music, OrchestrationMus	216	3
Music, Analysis	217	2	Electives	210	6
Electives	21/	6	Litetives		0
				-	-
<sup>1</sup> The level of the course will dep		16			15
of the course will der	pend	upon t	he achievement of the student		
and the same of th		- Font	and the state of the state of		

# BACHELOR OF SCIENCE

The curricula leading to the degree of Bachelor of Science provide a thorough grounding in the scientific method, supplemented by a study of the Humanities and Social Sciences. The three curricula in science are intended to propose students for technical resolvenced and a science. to prepare students for technical work or advanced study.

# GROUP I—BIOLOGY

Special emphasis upon Biology is recommended in preparation for the study of medicine, osteopathy, dentistry, and allied studies; the teaching of Biology; industrial and medical technology; and graduate work in Biology.

# GROUP II—CHEMISTRY

This group is for students planning to enter graduate study in Chemistry, industrial Chemistry, or the teaching of Chemistry.

# GROUP III—PHYSICS

This group is for students interested in research, electronics, advanced study, or industrial Physics. Only the first two years of this course are offered by Wilkes College.

# 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. A student beginning either language in college must complete 12 semester hours.

## BACHELOR OF SCIENCE IN BIOLOGY

The curriculum leading to the degree Bachelor of Science in Biology is intended to give a thorough understanding of the scientific method with emphasis on the biological and chemical aspects. The prescribed curriculum includes: requirements established for entrance into the majority of medical, dental, osteopathic, and medical technologic schools; preparation for industrial biology; and bases for specific advanced zoological work in schools of graduate

study.					
	FRE	SHM	AN YEAR		
First Semester			Second Semes	ster	
Title N	umber	Cr.	Title	Number	Cr.
General Inorganic Chem. Chei Composition. Eng Hist. of W. Civilization. Hist Algebra and Trig. Mat Phys. Ed. and Hygiene. P.E.	101 101 h 105	3 3 5	Inor. Chem. & Qual. Anal Nar. and Des. Writing Hist. of W. Civilization Analytic Geometry Phys. Ed. and Hygiene	Eng 102 Hist 102 Math 122	2 3 2 3 2 4
		16			17
	SOPI	номо	DRE YEAR		
Third Semester			Fourth Semes	ster	
Title Nu	mber	Cr.	Title	Number	Cr.
General Zoology Bio Inor. Quantitative Analysis Che: World Literature Eng Foreign Language 101 Physical Education P.E.	m 121 151 or 103		General Zoology Organic Chemistry World Literature Foreign Language <sup>1</sup> Physical Education	Chem 230 Eng 152 102 or 104	0 4 2 4 4 3
		17			17
MARKET	It	JNIOF	YEAR		
Fifth Semester	,		Sixth Semest	ter	
771. 1	mber	Cr.	Title	Number	Cr.
Comp. Anatomy of the Vert. Bio Organic Chemistry Chei Foreign Language <sup>1</sup> 103 of General Physics Physics	m 231	4	General Botany Histology and Organology. Foreign Language <sup>1</sup> General Physics	Bio 202	2 5
		17			18
Eighth Lamester	SI		YEAR		10
Seventh Semester	O1	214101	Eighth Semes	ster	
Title	mber	Ce	Title	Number	Cr.
Alternates:	115001	Cr.	Alternates:	1100000	Ur.
Bacteriology Bio Genetics Bio Physiology Bio Proseminar in Biology Bio Electives	211 261 251 291	3 4	Bacteriology Embryology Physiology Proseminar in Biology Fundamentals of Speech Electives	Bio 262 Bio 252 Bio 292	2
	1	6-17		wollow	16–18
1 The 1	1	0 1/			.0 10

The level of the course will depend upon the achievements and interests of the student. The department of Biology also offers courses in the Taxonomy of Flowering Plants (Biology 113) and in Entomology (Biology 223), both of which are given in the are given in the summer.

### BACHELOR OF SCIENCE IN CHEMISTRY

The Chemistry Department offers a four-year curriculum leading to a Bachelor of Science in Chemistry. To satisfy the requirements for this degree a student must complete a total of 140 credits. These credits must include 48 in Chemistry, 33 in Physics and Mathematics, 18 to 24 in the Social Sciences

and Psychology, and 24 to 30 in Humanities.

The Chemistry curriculum is planned to provide thorough training in the fundamentals of the science and to contribute to the broad general education

Graduates in Chemistry may enter industry immediately upon graduation or may continue their studies in graduate school.

may continue their studies in gradu	iate sci	1001.		
First Semester FRI	ESHMA	N YEAR Second Seme	ester	
Title Number General Inorganic Chem. Chem 101 Engineering Problems. Engi 100 Composition. Eng 101 Hist. of W. Civilization. Hist 101 Algebra and Trig. Math 105 Phys. Ed. and Hygiene. P.E. 101	4 1 3 3 5	Title Inor. Chem. & Qual. Anal Basic Drawing. Hist. of W. Civilization Analytic Geometry Phys. Ed. and Hygiene	Engi 102 Hist 102 Math 122	3
Third Semester SOP.	номо	RE YEAR Fourth Seme	ester	
Title Number Inor. Quantitative Analysis. Chem 121 Advanced Exposition. Eng 105 Differential Calculus. Math 125 General Physics. Phys 201 Physical Education. P.E. 103	4 3 4 5	Title Stoichiometry Organic Chemistry Integral Calculus General Physics Elective Physical Education	Chem 230 Math 126 Phys 202	Cr. 2 4 4 5 2 1 18
Fifth Semester Ju	UNIOR	YEAR Sixth Semes	ter	
Title Number Organic Chemistry Chem 231 Physical Chemistry Chem 241 Elective Phys 251	Cr. 4 4 7	Title Inor. Quantitative Analysis	NumberChem 122Chem 242	Cr. 5 4 9
Seventh Semester S	ENIOR	YEAR Eighth Seme	ster	_
Title Number Qualitative Organic Anal Chem 233 History of Chemistry Chem 261 Chemistry Elective Chem Elective	1 2	Title Chemical Literature Chemistry Elective Elective	Chem	Cr. 1 4 13 18

The language requirement for the Bachelor of Science degree must be satisfied.

Electives are to be selected with the advice and consent of the faculty adviser as follows:

Humanities: Twelve 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: Eighteen to twenty-four credits are to be chosen from the following: Sociology 100, 107, 205; Political Science 100, 101, 203; Economics 101, 102; History 107, 109; Edward 202, 202, 202 101, 102; History 107, 108; Education 101, 201, 207.

# 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 Semest	er		Second Semester	
General Inorganic Chem. Engineering Problems. Composition Algebra and Trig. American Government Phys. Ed. and Hygiene.	Engi 100 Eng 101 Math 105	1 3	Title Number  General Inorganic Chem. Chem 104 Basic Drawing Engi 102 Nar. and Des. Writing Eng 102 Amer. Hist. since 1865 Hist 108 Analytic Geometry Math 122 Phys. Ed. and Hygiene P.E. 102	3 3 3
				10

# SOPHOMORE YEAR

Third Semester		T LANK	
Title Number  Fundamentals of Speech Eng 134 Advanced Exposition Eng 105 Elementary German <sup>1</sup> Ger 101 Differential Calculus Math 125 General Physics Phys 201 Physical Education P.E. 103	Cr. 3 3 4 5 1	Fourth Semester  Title  Number  Elementary German <sup>1</sup> Ger 102  Integral Calculus Math 126  Mechanics I, Statics M.E. 211  Mechanics II, Dynamics M.E. 212  General Physics Phys 202  Physical Education P.E. 104	4 3 3
	19	i sessioned to binomial of business in	10

<sup>&</sup>lt;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 Department provides training for economic and business activities combined with a well-rounded education. 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.

The Commerce and Finance Department offers four groups of study to meet the individual needs and purposes of the students. To insure a well-balanced program, faculty advisers assist each student in the choice of his elective studies.

#### GROUP I—ACCOUNTING

Special emphasis is placed on Accounting in preparation for a career in private or public Accounting. Related courses in Economics and Business Administration provide a broad business background for students in Accounting.

### GROUP II—BUSINESS ADMINISTRATION

This group is designed for students who desire a broad business background with special work in Banking and Finance, Management and Industrial Relations, or Marketing.

### GROUP III—RETAIL MERCHANDISING

A broad background of business is recommended for students interested in Retail Merchandising. Emphasis is placed on specialized courses in Retail Merchandising which are offered in cooperation with retail establishments.

#### GROUP IV—SECRETARIAL STUDIES

This group prepares students for secretarial positions. It offers training to students who desire a broad cultural and business background as well as specialization in Secretarial Studies.

Courses in all groups are arranged so that the student will devote about half of his work to Commerce and Finance courses. The remainder of his work will be in the Social Sciences, Science, and Humanities.

# REQUIREMENTS FOR GROUP MAJORS

Courses in Major	I decounting Cr 30	II Business Administration Cr. 601	III Retail Merchandising Cr. 36	IV Secretarial Studies Cr. 27
Courses in Commerce and Finance Department (outside major)	39		27	Molecular Section Control
Courses in Social Sciences, Education, History, Po- litical Science, and Sociology			2/	18
Courses in Humanities	12	15	18	9
		31	28	28
Courses in Science		6	6	6
Free Electives		15	12	
Physical Education	4	4	4	39
Total Courses	Manual Series	1	4	4
(in compate 1	2.1			
( deficated flours)	.31	131	131	131

<sup>&</sup>lt;sup>1</sup> This figure includes both major courses and other courses offered in the Commerce and Finance Department.

# MAJOR IN ACCOUNTING1

### FRESHMAN YEAR

Einst Comaster			Second Semester		
First Semester  Title Nun  Elementary Accounting Acct Survey of Business B.A. Biological Science Bio Composition Eng	100	3		102	3 3
Alternates: Hist. of W. Civilization. Hist Amer. Hist. to 1865. Hist Phys. Ed. and Hygiene. P.E.	101	)	Amer. Frist. Since 1609  Amer. Federal Govt	100	3
		16			16

### SOPHOMORE YEAR

Thind Competer			Fourth Semester	
Title Num Intermediate Accounting Acct Business Law B.A. Principles of Economics Ec World Literature Eng Alternates: Fundamentals of Math Math Mathematics of Finance I Math Physical Education P.E.	101 151 101 101 115	3 3 3 4	Title  Advanced Accounting	3 3 3 4 4 3 3
		1/		

# JUNIOR YEAR

	11	DIVION	LEIN		
Fifth Semester			Sixth Semester	nber	Cr.
	20: 20: 23: 13:	3 3 3 1 3 1 2	Advanced Cost Accounting Acct Accounting Systems Acct Business Law B.A. Alternates: Theory of Money Ec Public Finance Ec Economic Geography Ec Economic Statistics Ec	202	3 3 3

### SENIOR YEAR

Seventh Semester			Eighth Semester Num	iber Cr.
Title Num. Tax Accounting Acct Auditing Principles Acct Bus. Cor. and Reports B.A. Corporation Finance B.A. Elective	221 231 209	3	Auditing Practice	232 100 3 101

<sup>1</sup> Practical experience in Accounting is required for all students during the summer following the Junior year or during the Senior year.

# MAJOR IN BUSINESS ADMINISTRATION

### FRESHMAN YEAR

First Semester	Second Semester				
Title Nun	nber	Cr.	Title Nun	aber	Cr.
Elementary Accounting Acct		3	Principles of AccountingAcct	102	3
Survey of Business B.A. Biological Science Bio		3	Nar. and Des. WritingEng Alternates:	102	3
CompositionEng		3	Hist. of W. CivilizationHist Amer. Hist. since 1865Hist		
Hist. of W. CivilizationHist Amer. Hist. to 1865Hist	101	3	Amer. Federal Govt	101	3
Phys. Ed. and HygieneP.E.		1	Phys. Ed. and HygieneP.É.		1
		16			16

### SOPHOMORE YEAR

Third Semester				Fourth Semester		
Title N	umber	Cr		Title Num	ber	Cr
Business Law B.A Principles of Economics Ec Fundamentals of Speech Eng World Literature Eng Alternates: Fundamentals of Math Ma Mathematics of Finance I. Ma	10 g 13 g 15 ath 10	01 31 31 31 31 31 31 31 31 31 31 31 31 31	3 2 4	Business Law	102 152 102 118	}
Physical Education P.E	E. 10	)3	1	Physical Education P.E.		
		10	6			1

# JUNIOR YEAR

Fifth Semester			Sixth Semester			
	Number	Cr.	Title Nun	nber	Cr.	
Money and Banking	c 221	3 3 3 3 6	Economic Geography. Ec Economic Statistics. Ec Alternates: Intro. to Philosophy. Phil History of Religions. Rel Bus. Adm. or Ec. Elective. Elective.	101	3	
		18			15	

### SENIOR YEAR

Seventh Semester		Eighth Semester	
Bus. Cor. and ReportsB. Bus. Adm. and Ec. Electives	Cr. 3 12 3	Title  Bus. Adm. and Ec. Electives  Elective	Cr 1:
	1.0		14

Students who major in Business Administration (Group II) in the Bachelor of Science course in Commerce and Finance may select their electives from the following:

### BANKING AND FINANCE

	3.7	ber	Title	Nun	nber
Titles Credits and Collections Real Estate	B.A. B.A. B.A.	218 220 225	Money and Banking	. Ec	236

### ECONOMICS

	NT		Title	Number	
Title Government and Business Labor Problems International Trade Economic Geography Comparative Economic Systems.	Ec Ec Ec	212 223 225 226 229	Title  Public Finance. E. Economic History. E. Economic Analysis E. History of Economic Thought E. Consumer Economics Economic Economic Investigation E	c 236 c 238 c 241 c 244 c 245	3 1 4 5
Business Cycles	Ec	230	Economic Investigation		

# MANAGEMENT AND INDUSTRIAL RELATIONS

	3.7	7	Title	TAMIN	1001
Title Industrial Management Personnel Management Property Insurance	B.A. B.A.	236 237	Life Insurance Labor Problems Applied General Statistics	B.A. Ec Ec	241 223 231
Property Insurance		-			

### MARKETING

			T:.1	Num	
Title	Nun	nber	Title	BA.	239
Salesmanship	B.A.	114	Sales Management	BA.	240
Salesmanship	B.A.	216	Sales Management Property Insurance	Fc	225
Advertising	BA	217	Property Insurance International Trade	Ec.	245
Transportation	BA	222	Consumer Economics	P.M.	101
Marketing	D.ZZ.	OVI	Consumer Economics Principles of Retailing	17.141.	

# MAJOR IN RETAIL MERCHANDISING

### FRESHMAN YEAR

First Semester	Second Semester				
Title Nun	nber	Cr.	Title Num	aber	Cr.
Elementary Accounting. Acct Biological Science. Bio Survey of Business B.A. Composition. Eng Alternates:	100	3 3 3 3	Principles of AccountingAcct Nar. and Des. WritingEng Alternates: Hist. of W. CivilizationHist Amer. Hist. since 1865Hist	102	3
Hist. of W. CivilizationHist Am. Hist. to 1865Hist Phys. Ed. and HygieneP.E.	107)		Physical Science Phys Amer. Federal Govt P.S. Phys. Ed. and Hygiene P.E.	100	3 1
		16			16

### SOPHOMORE YEAR

Third Semester		Fourth Semester				
Title Num	eber	Cr.	Title Num	ber	Cr	
Business LawB.A.	231	3	Business LawB.A.	232	1	
Principles of EconomicsEc	101	3	Principles of EconomicsEc	102		
World Literature Eng	151	4	World Literature Eng	152		
Fundamentals of MathMath		3	Fundamentals of MathMath			
Principles of Retailing R.M.	101	3	Retail Store Organ & ManR.M.	102		
Physical EducationP.E.	103	1	Physical Education P.E.	104		
					_	
The state of the s		17			17	

### JUNIOR YEAR

Fifth Semester			Sixth Semester		
Title Num	0.01	Cr.	Title Num	ber	Cr.
Applied General Statistics Ec Fundamentals of Speech Eng Color and Design	131 201 205	2 2 2	Intro. to Music	101) 101) 210 212	3 3 3 2 3
		15			17

### SENIOR YEAR

Eighth Semester		Seventh Semester	
Title Number	Cr.	Title Number	Cr.
Bus. Cor. and ReportsB.A. 209 Display (Retail)	3	Organization & Operation of	
rundama	7	the Small Store. R.M. 220	2
Retail Pour	3	Retail Cred. and CollR.M. 222	2
Intro to a relations. R. W. 119	3	Recent Trnds. & Developments	
Intro. to Sociology Soc. 100  Elec. in Com. & Fin. or Soc. Sec.	3	in Retail. R.M. 224	3
Elec. in Com. & Fin. or Soc. Sc.	3	Electives	9
	-		-
	17		16

# MAJOR IN SECRETARIAL STUDIES

#### FRESHMAN YEAR

71 . 6			Second Semester		
First Semester		C	Title Numb		Cr.
Title Number  Survey of Business B.A. I Composition Eng I Alternates: Hist. or W. Civilization Hist Amer. Hist. to 1865 Hist Fundamentals of Math. Math Shorthand and Typewriting S.S. Phys. Ed. and Hygiene P.E.	100 101 101) 107) 101 101	3 3 3 4	Biological ScienceBio Nar. and Des. WritingEng Alternates: Hist. of W. CivilizationHist Amer. Hist. since 1865Hist Fundamentals of MathMath Shorthand and TypewritingS.S. Phys. Ed. and HygieneP.E.	100 102 102) 108) 102 102	3 3 4
Thys. La. and ==78		17			17

### SOPHOMORE YEAR

			Fourth Semester		
Third Semester	,	C	Title Num	ber	Cr.
Title Num  Elementary Accounting Acct Advanced Exposition Eng Fundamentals of Speech Eng Intro. to Music Mus	101 105 131 100	3 2 3	Principles of Accounting Acct American Government P.S. Physical Science Phys Advanced Stenography S.S.	100	3 4 3
Advanced Stenography. S.S. Physical Education. P.E.	103	16	Physical Education P.E.	104	17

#### JUNIOR YEAR

1 2116	aber	Cr.	n · · · · · · · · · · · · · · · · · · ·	102	Cr. 3
Title Num Principles of Economics . Ec World Literature . Eng Alternates: Medical Stenography . S.S. Speech Reporting . S.S. Electives	101 151 210)	3 4		-	3 4 9 ——————————————————————————————————

#### SENIOR YEAR

Bus. Cor. and ReportsB.A. Office Proc. & Office MachS.S.	20)	Eighth Semester Number Office Management	-
Electives	8-9 15-16		

Electives should be divided between Commerce and Finance and Liberal Arts courses according to the interests and vocational objectives of each student.

#### BACHELOR OF SCIENCE IN ENGINEERING

Wilkes College offers the first two years of the Engineering curriculum. 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, Drexel, Georgia School of Technology, Lafayette, Lehigh, Massachusetts Institute of Technology, New York University, Pennsylvania State College, Stevens Institute, Syracuse, and 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, the Natural Sciences and 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 that Chemical Engineering students must take two additional hours more Chemistry in the second term. 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 middle of the second year. For this reason the student should decide by then whether he will pursue Civil, Industrial, Electrical, or Mechanical Engineering.

#### FRESHMAN YEAR

# (COMMON TO ALL ENGINEERING COURSES)

General Inorganic Chem. Chem 101 4 Alternates:  Engineering Problems. Engi 100 1 Inor. Chem. & Qual. Anal. Chem 102 4 General Inorganic Chem. Chem 104 4 General Inorganic Chem. Chem 104 4 General Inorganic Chem. Chem 104 5 General Inorganic Chem. Chem 104 6 General Inorganic Chem. Chem 105 6 General Inorganic Chem. Chem 106 7 General Inorganic Chem. Chem 107 6 General Inorganic Chem. Chem 108 7 General Inorganic Chem. Chem 109 7 Gen						
General Inorganic Chem. Chem 101 4 Alternates: 1 Engineering Problems. Engi 100 1 Inor. Chem. & Qual. Anal. Chem 102 4 Engineering Drawing. Engi 105 3 General Inorganic Chem. Chem 104 Composition. Eng 101 3 Drawing & Des. Geometry. Engi 106 Algebra and Trig. Math 105 5 Advanced Exposition. Eng 105 Phys. Ed. and Hygiene. P.E. 101 1 Analytic Geometry. Math 122 American Government. P.S. 100 Phys. Ed. and Hygiene. P.E. 102		er		Second .	Semester	
17	General Inorganic Chem Engineering Problems. Engineering Drawing. Composition.	Chem 101 Engi 100 Engi 105 Eng 101	4 1 3 3	Alternates: <sup>1</sup> Inor. Chem. & Qual. General Inorganic C Drawing & Des. Geon Advanced Exposition. Analytic Geometry. American Government	Anal. Chem 10 hem. Chem 10 hetry Engi 10 Eng 10 Math 11	02 04 06 3 05 3 22 4 00 3

<sup>&</sup>lt;sup>1</sup> Chemical engineers will register for Chemistry 102 (6 hours). All other Engineering students will register for Chemistry 104 (4 hours).

# MAJOR IN SECRETARIAL STUDIES

#### FRESHMAN YEAR

71 . 0			Second Semester		
First Semester		C	Title Numb		Cr.
Title Numb Survey of Business B.A. Composition Eng Alternates: Hist. or W. Civilization Hist Amer. Hist. to 1865 Hist Fundamentals of Math. Math	100 101 101 107 101	3 3 3	Biological Science	100 102 102 108) 102 102	3 3 4
Shorthand and Typewriting S.S. Phys. Ed. and Hygiene P.E.	101	7	Phys. Ed. and HygieneP.E.	102	17

### SOPHOMORE YEAR

-11 10 -4-0			Fourth Semester		
Third Semester	-	_	Title Nu	mber	Cr.
Title N.  Elementary Accounting Accounting Acadvanced Exposition Engrundamentals of Speech En Intro. to Music. Mu Advanced Stenography S.S. Physical Education P.I.	g 131 is 100 . 109	3 3 2 3 4	Principles of Accounting. Acci American Government. P.S. Physical Science. Phy Advanced Stenography. S.S. Elective. Physical Education. P.E	102 100 s 100 110	3 3 4 3
		10			

#### JUNIOR YEAR

Fifth Semester			Sixth Semester Numbe	r Cr	
Principles of Economics Ec World Literature Eng	101 151	Cr. 3	1 1118	02	3 4 9
Alternates: Medical StenographyS.S. Speech ReportingS.S. Electives	210 203	3 6		1	- 6
		16			

#### SENIOR YEAR

Seventh Semester Title Num Bus. Cor. and ReportsB.A. Office Proc. & Office MachS.S. Electives	ber Cr. 209 3 205 4 8-9	Eighth Semester Number Title Office Management	Cr 1:
	15-16		

Electives should be divided between Commerce and Finance and Liberal Arts courses according to the interests and vocational objectives of each student.

#### BACHELOR OF SCIENCE IN ENGINEERING

Wilkes College offers the first two years of the Engineering curriculum. 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, Drexel, Georgia School of Technology, Lafayette, Lehigh, Massachusetts Institute of Technology, New York University, Pennsylvania State College, Stevens Institute, Syracuse, and 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, the Natural Sciences and 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 that Chemical Engineering students must take two additional hours more Chemistry in the second term. 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 middle of the second year. For this reason the student should decide by then whether he will pursue Civil, Industrial, Electrical, or Mechanical Engineering.

#### FRESHMAN YEAR

# (COMMON TO ALL ENGINEERING COURSES)

First Semester		Second Semester			
		Second Semester			
Title Number  General Inorganic Chem. Chem 101 Engineering Problems. Engi 100 Engineering Drawing. Engi 105 Composition. Eng 101 Algebra and Trig. Math 105 Phys. Ed. and Hygiene. P.E. 101	3 3	Title Num  Alternates:  Inor. Chem. & Qual. Anal. Cher General Inorganic Chem. Cher Drawing & Des. Geometry. Engi Advanced Exposition. Eng Analytic Geometry. Matl American Government. P.S. Phys. Ed. and Hygiene. P.E.	n 102) n 104) 106 105 n 122 100 102	Cr. 3 3 4 3 1 3-20	

<sup>&</sup>lt;sup>1</sup> Chemical engineers will register for Chemistry 102 (6 hours). All other Engineering students will register for Chemistry 104 (4 hours).

# AERONAUTICAL ENGINEERING

Mechanical Engineering is basic for 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 training 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 or sales engineer.

#### SOPHOMORE YEAR

Third Semester			Fourth Semester	
Title	Number	Cr.	Title Number	Cr.
Inor. Quant. Analysis	.Chem 121	4	Stoichiometry	3
Intro. to Economics	.Ec 100	3	Integral CalculusMath 126	4
Fundamentals of Speech	.Eng 134	3	Mechanics I, StaticsM.E. 211	3
Differential Calculus	.Math 125	4	Mechanics II, DynamicsM.E. 212	3
General Physics	.Phys 201	5	General Physics	5
Physical Education	.P.É. 103	1	Physical Education P.É. 104	1
curricula change furnier		-	one of the other branches of corn	-
		20		19

#### 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

Third Semester			Fourth Semester		
Title Nun	aber	Cr.	Title Number		
Plane Surveying	103	3	Route Surveying	4	
Intro. to EconomicsEc		3	Route Surveying. C.E. 104 Integral Calculus Math 126 MF 211	3	
Fundamentals of Speech Eng	134	3			
Differential Calculus Math		4			
General PhysicsPhys	201	5			
Physical Education P.É.	103	1	Physical Education	-	
animaliant asks fix 19 and 37				20	
		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, circuits, and equipment for commercial processes offers opportunities in many fields of endeavor.

## SOPHOMORE YEAR

Third Semester  Title  Number  Plane Surveying  C.E. 10  Intro. to Economics  Ec 10  Fundamentals of Speech  Differential Calculus  Math 12  General Physics  Phys 20  Physical Education  P.E. 10	03 00 34 25	Fourth Semester  Title Number  Integral Calculus Math 126 Kinematics M.E. 206 Mechanics I, Statics M.E. 211 Mechanics II, Dynamics M.E. 212 General Physics Phys 202 Physical Education P.E. 104	3 3
	19		20

# 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 of 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 not only possess technical skill and ability; it is of equal importance that he have economic and humanistic interests, and character and personality as well. 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 curriculm offers the first two years work for those primarily interested in the administration of technical enterprises.

# SOPHOMORE YEAR

Third Seme: Title Elementary Accounting	Number 101	Cr.	Fourth Semester Title Number	Cr.
Elementary Accounting Intro. to Economics Fundamentals of Speech Differential Calculus General Physics Physical Education	NumberAcct 101Ec 100Eng 134	3	Title	4 3

#### 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 and result of his profession upon our way of life and how its development and expansion affect our future.

#### SOPHOMORE YEAR

Third Semester				Fourth Semester		
Title	Numbe	r	Cr.	Title Nun	nber	Cr.
Plane Surveying	.C.E. 1	03	3	Integral Calculus Math	126	4
Intro. to Economics			3	KinematicsM.E.	206	4
Fundamentals of Speech	.Eng 1	34	3	Mechanics I, Statics M.E.	211	3
Differential Calculus	.Math 1	25	4	Mechanics II, DynamicsM.E.	212	3
General Physics	.Phys 2	01	5	General PhysicsPhys		
Physical Education	.P.É. 1	03	1	Physical Education P.É.	104	1
						-
			10			20

# A PRELIMINARY PROGRAM IN MUSIC EDUCATION

Wilkes College offers, individual courses required in the preparation of public school teachers. It is possible, therefore, by the judicious selection of courses to complete two years of college work in this field. To assist students who may wish to take two years of work in Music Education in Wilkes-Barre, before transferring to a college which offers the degree in Music Education, the following sequence of courses is suggested.

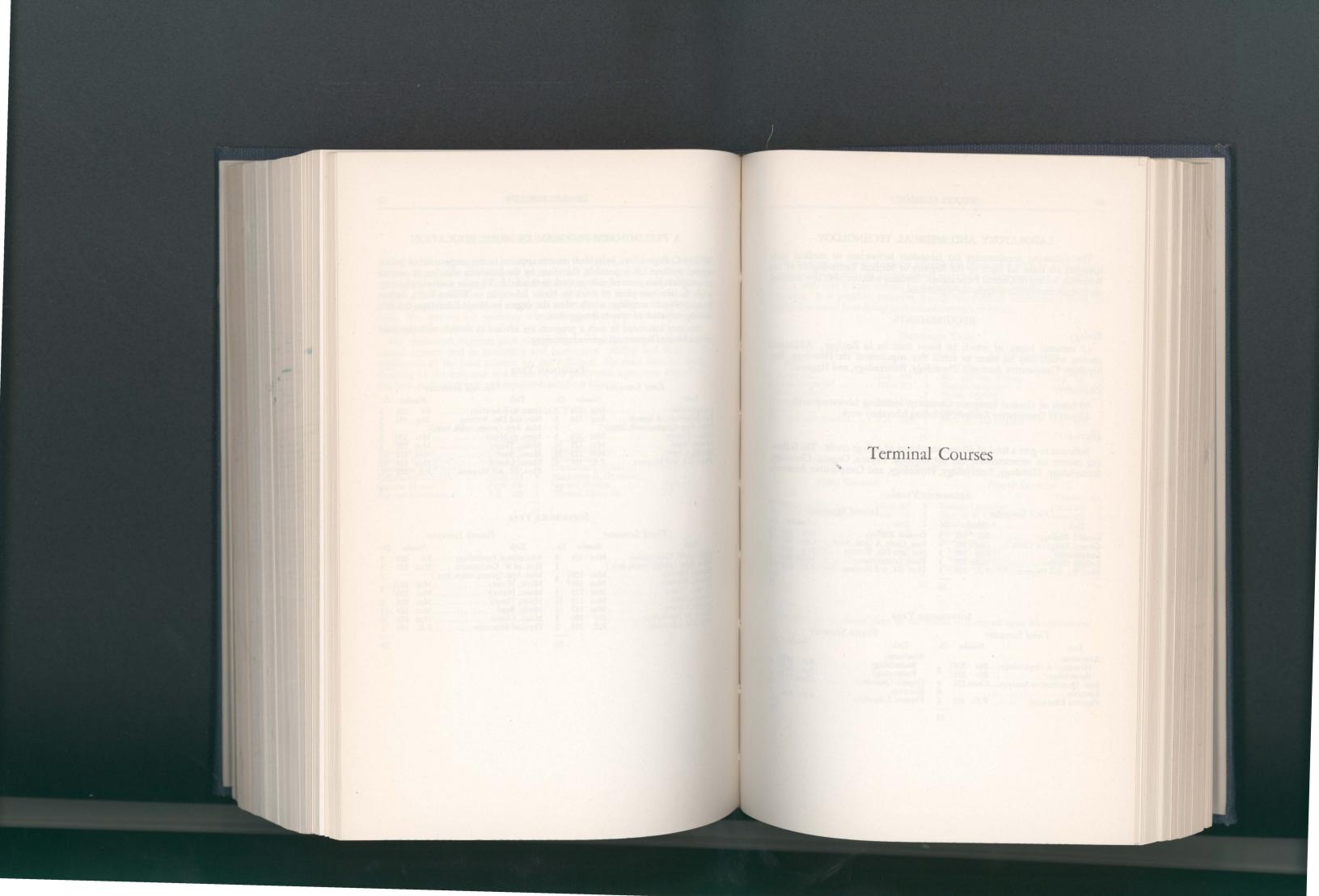
Students interested in such a program are advised to consult with the head of the Music Department before registering.

## FRESHMAN YEAR

First Samuet					
First Semester  Title Num  Composition Eng Fundamentals of Speech Eng Mus. App. (piano, voice, inst.) Music Theory Mus Music, Band Mus Music, Chorus Mus Phys. Ed. and Hygiene P.E.	101 134 101 121	Cr. 3 3 2 5 1/2 1/2 1	Second Semester  Title Num  Intro. to Education Ed Nar. and Des. Writing Eng Mus. App. (piano, voice, inst.) Intro. to Music Mus Music, Theory Mus Music, Band Mus Music, Chorus Mus Phys. Ed. and Hygiene P.E.	101 102 100 102 122	Cr. 3 3 2 3 5 1/2 1/2 1
*		15			18

# SOPHOMORE YEAR

		TENE	
Third Semester  Title Num  Hist. of W. Civilization. Hist Mus. App. (piano, voice, inst.)  Music, History. Mus Music, History. Mus Music, Theory. Mus Music, Band. Mus Music, Chorus. Mus Music, Chorus. Mus Music, Chorus. Psy Physical Education. P.E.	109 209 3 103 5 123 ½ 127 ½	Educational Psychology. Ed Hist. of W. Civilization. Hist Mus. App. (piano, voice, inst.) Music, History. Mus Music, History. Mus Music, Theory. Mus Music, Band. Mus Music, Chorus. Mus Music, Education. Mus Physical Education.	110 3 210 3 104 5 124 ½



## 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.

## REQUIREMENTS

## Biology:

12 semester hours, of which 10 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:

10 hours of General Inorganic Chemistry, including laboratory work.
4 hours of Quantitative Analysis, including laboratory work.

#### Electives:

Sufficient to give a total of 60 semester hours of college credit. The following courses are recommended, but not required: Physics, Organic Chemistry, Bacteriology, Histology, Embryology, Physiology, and Comparative Anatomy.

#### FRESHMAN YEAR

First Semester			Second Semester		
Title	Number	Cr.	Title Nun	nber	Cr.
General Zoology. General Inorganic Chem. Composition College Algebra Phys. Ed. and Hygiene.	Chem 101 Eng 101 Math 107	5 4 3 3 1	General Zoology Bio Inor. Chem. & Qual. Anal. Chen Nar. and Des. Writing Eng Plane Trigonometry Matl Phys. Ed. and Hygiene P.E.	n 102 102 h 109	3 3
		16			18

# SOPHOMORE YEAR

Third Seme.	ster		Fourth Semester			
Title	Number	Cr.	Title	Number Cr.		
Alternates: Histology & Organology Bacteriology Inor. Quantitative Analysis Electives Physical Education	Bio 211) Chem 121	5 4 6 1 16	Alternates: Bacteriology Embryology Organic Chemistry Electives Physical Education	Bio 212 5 Bio 262 4 Chem 230 4 P.E. 104 1		

#### 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	109		Second Semester		
Composition E. Foreign Language <sup>1</sup> 10 Music, Applied Music, Theory Music, Theory Phys. Ed. and Hygiene P.	01 or 103 Ius 101	3	Title Nun  Nar. and Des. Writing Eng Foreign Language¹ 102 o  Music, Applied Intro. to Music. Mus  Music, Theory Mus  Phys. Ed. and Hygiene P.E.	100 100	3 3 1
		20			16

# SOPHOMORE YEAR

Third Seme.			Fourth Semester		
Foreign Language <sup>1</sup> . Hist. of W. Civilization. Music Applied. Music, Theory Alternates: Music, History. Music, History. Physical Education.	Mus 103	3 1 5	T:.1	102	3 1 5

<sup>&</sup>lt;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

Ti C	Second Semester	
First Semester	Title Number Cr	
Title Number Cr.	Inor. Chem. and Qualitative. Chem 102	6
General Ingoranic Chem Chem 101 4 Composition	Nar. and Des. WritingEng 102	3
Composition	Alternates: Hist. of W. CivilizationHist 102 U. S. History since 1865Hist 108	3
U. S. History to 1803 Math 107 3	Analytic Geometry Math 122	1
College Algebra Math 107 3	Phys. Ed. and HygieneP.E. 102	î
Plane Trigonometry Math 109 3		
Phys. Ed. and HygieneP.E. 101 1	er benirs of college create 1	17
17		

# SOPHOMORE YEAR

Third Semeste Title General Zoology Inor. Quantitative Analysis	Number Bio 101 Chem 121	5 4	Fourth Semester Title Num General Zoology. Bio Organic Chemistry. Chen Fundamentals of Speech Eng	102 1 230 134	5 4 3
Advanced Exposition General Physics Physical Education	Phys 201	5	General Physics Physical Education P.E.		

# PRE-DENTAL

(Three years)

# FRESHMAN YEAR

THIS Semester				Setona Semester				
	Title	Number	Cr.	Title	Vumber	C		
	General Inorganic Chem Composition College Algebra Plane Trigonometry Elective Phys. Ed. and Hygiene	Chem 101 Eng 101 Math 107 Math 109	4 3 3 3 3 1	Inor. Chem. & Qual. Anal	nem 102 ng 102 lath 122			
	nd Semanter Street		17					

#### SOPHOMORE YEAR

Third Semest	er			Fourth Semester		
Title	Num	ber	Cr.	Title	umber	0
General Zoology	.Bio	101	5	General ZoologyBio	102	
Inor. Quantitative Analysis	.Chem	121	4	Organic ChemistryChe	em 230	
General Physics	.Phys	201	5	General PhysicsPhy		
Physical Education	.P.É.	103	1	Physical EducationP.É	. 104	
			-			-
			15			]

# JUNIOR YEAR

Fifth Semester		Sixth Semester				
Title Num	aber		Title Nun	nber	Cr.	
Com. Anatomy of the Vert. Bio Organic Chemistry. Chem World Literature. Eng Alternates: Hist. of W. Civilization. Hist Amer. Hist. to 1865. Hist	151	5 4	Histology and Organology Bio World Literature Eng Alternates: Hist. of W. Civilization Hist Amer. Hist. since 1865 Hist Elective	152 102 108	4	

# RADIO PRODUCTION

As the influence of radio increases, so will an inevitable demand for men and women possessed of broad training and specialized technical skills. This course does not pretend to develop experts in radio production and programming, but it does help to create familiarity with broadcasting in combination with courses in general education.

The course in general education will be given in the college and the technical courses will be given in the workshop of a local broadcasting station.

## FRESHMAN YEAR

First Competer		Second Semester		
11116	101 3 107 3 100 3 100 3		102) 108) 100 100 102	3 2 3 3 3 3 3

## SOPHOMORE YEAR

771: 1 C			Fourth Semester		
General PsychologyPsy	100 151 100 201 203	3 4 3 3 3	Title Num World Literature Eng Amer. Federal Govt. P.S. Alternates: Radio News Ed. & Broad. Rad Radio Advertising. Rad Radio Acting & Directing. Rad Elective. Physical Education. P.E.	152 101 202) 204) 206	3 3 3 3
					11

#### 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 Bachelor of Science Degree in Commerce and Finance when students desire to continue their education after completing their secretarial training. The flexibility of the program leading to this degree permits students to elect a 24-hour sequence either in commerce and finance or in another field of study, according to the interests and objectives of each student.

#### FRESHMAN YEAR

First Sem	ester			Second Semester				
Title	Num	ber Cr		Title	Num	ber	Cr.	
Alternates: Survey of Business Intro. to Economics Composition Alternates: Hist. of W. Civilization Amer. Hist. to 1865 Shorthand and Typewritin Phys. Ed. and Hygiene	Econ Eng nHist Hist ngS.S.	100) 101 : 101) 107)	3 3 4 1 - 4	Economic Geography Nar. and Des. Writing Fundamentals of Speech Alternates: Hist. of W. Civilization. Amer. Hist. since 1865 Shorthand and Typewriting Phys. Ed. and Hygiene	Eng Hist Hist	102 131 102 108) 102	3 3 2 3 4 1	

# SOPHOMORE YEAR

Third Semester				Fourth Semester					
	Title Num			Title Num	2ber	Cr.			
	Business Law B.A.	231	3	Business LawB.A.					
	Authoritals of Math Math	101	3	Advanced StenographyS.S.	110	4			
	and all ced Stenography CC	100	1	Secretarial AccountingS.S.	120	3			
		205	4	Office ManagamentS.S.					
				Elective		3			
	Physical Education	103	1	Physical EducationP.E.	104	1			
			_			_			
			18			18			

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. Placements 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

First Semester		Second Semester				
Title	Numbe	er	Cr.	Title Nun	nber	Cr.
Biological ScienceBi	io 1	00	3	General Inorganic ChemChen	n 101	4
CompositionEr	ng 1	01	3	Nar. and Des. Writing Eng	102	3
Fundamentals of MathM	[ath ]	101	3	Shorthand and Typewriting S.S.		
Shorthand and Typewriting S.S.	S. 1	01	4	Secretarial Accounting S.S.	120	4
Phys. Ed. and HygieneP.			1	Phys. Ed. and HygieneP.E.		
			14			16
			14			10

#### SOPHOMORE YEAR

Third Semester			Fourth Semester		
Title Nur.	nber	Cr.	Title Nun	nber C	r.
Physiology Bio Alternates:	251	4	PhysiologyBio	252	4
Hist. of W. CivilizationHist Amer. Hist. to 1865Hist		3	Hist. of W. CivilizationHist Amer. Hist. since 1865Hist		3
Advanced StenographyS.S.	109	4	Medical Stenography S.S.	201	3
Office Pro. and MachinesS.S. Elective	205	3	Office Management S.S. Elective		4
Physical Education	103	1	Physical Education P.E.	104	1
		18			18

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.



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## 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.

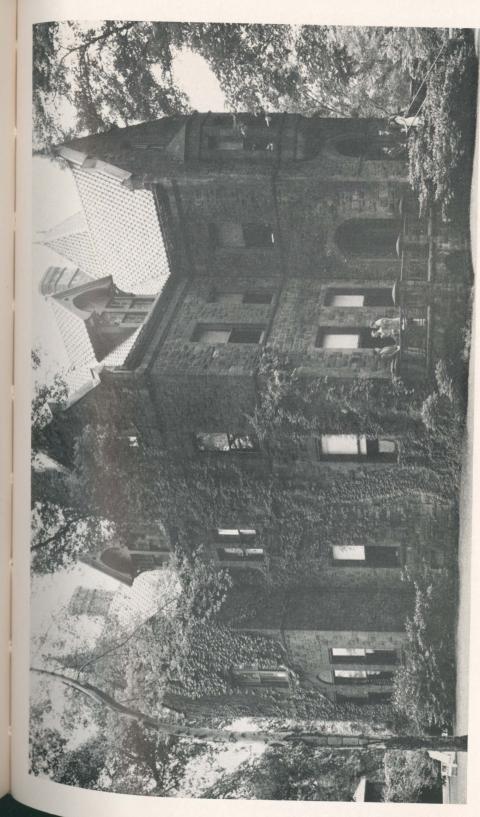
## FRESHMAN YEAR

First Semester		Second Semester			
Title	Number	Cr.	Title Nun	nber	Cr.
Biological ScienceBi	o 100	3	General Inorganic ChemChem	101	4
CompositionEr	ng 101	3	Nar. and Des. Writing Eng	102	3
Fundamentals of MathM	ath 101	3	Shorthand and TypewritingS.S.	102	4
Shorthand and Typewriting S.S.	S. 101	4	Secretarial Accounting S.S.	120	4
Phys. Ed. and HygieneP.		1	Phys. Ed. and HygieneP.E.	102	1
		14			16

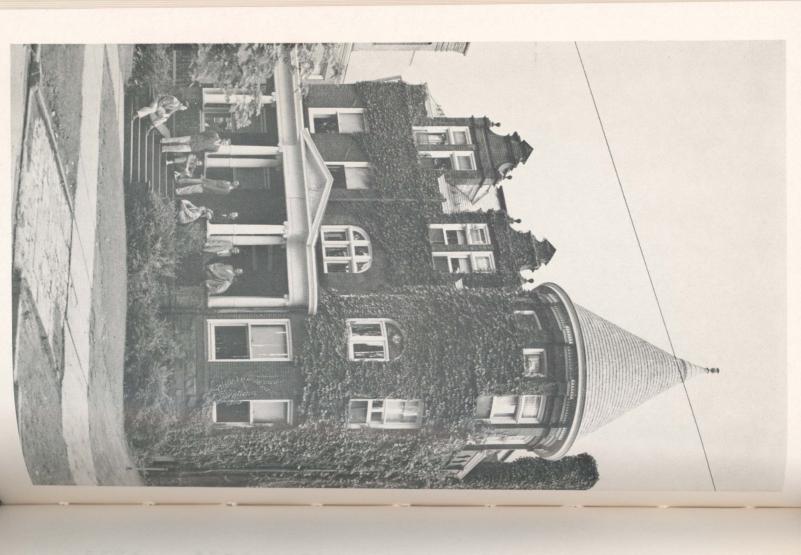
#### SOPHOMORE YEAR

Third Semester	Fourth Semester			
Title	nber	Cr.	Title Nun	mber Cr.
Physiology Bio Alternates:	251	4	PhysiologyBio	252
Hist. of W. CivilizationHist Amer. Hist. to 1865Hist		3	Hist. of W. CivilizationHist Amer. Hist. since 1865Hist	
Advanced StenographyS.S.		4	Medical Stenography S.S.	201
Office Pro. and Machines S.S.	205	3	Office Management S.S.	
Elective		3	Elective	3
Physical EducationP.E.	103	1	Physical EducationP.E.	104
e of the orange		18		18

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.

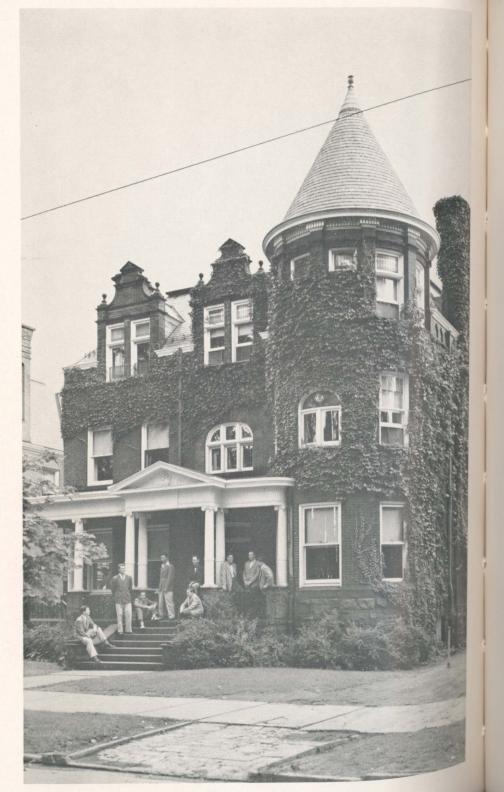


KIRBY HOME FOR EDUCATION – LIBRARY



ZEBULON BUTLER HALL—MEN'S DORMITORY

# Description of Courses



ZEBULON BUTLER HALL—MEN'S DORMITORY

# Description of Courses

#### **ACCOUNTING**

Professor Rosenberg; Instructors Cooney, Laggan, Manley, Werner,

ACCT. 101. ELEMENTARY ACCOUNTING—Three hours 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, two hours a week.

ACCT, 102. PRINCIPALS 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, two 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.

THE STAFF ACCT. 201. COST ACCOUNTING—Three hours

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.

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.

ACCT. 220. ACCOUNTING SYSTEMS—Three hours

MR. MANLEY, MR. WERNER

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.

Prerequisites: Accounting 112, 201.

ACCT. 221. TAX ACCOUNTING—Three hours

Mr. Laggan, Mr. Manley, Mr. Werner

A study of Federal taxes including income, estate, gift, corporate and miscellaneous; correct use of various forms; application of rates. Prerequisites: Accounting 112, 202.

ACCT. 231. AUDITING PRINCIPLES—Three hours

MR. MANLEY, MR. WERNER

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,

Prerequisite: Accounting 202.

ACCT. 232. AUDITING PRACTICE—Three hours

MR. MANLEY, MR. WERNER

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. C. P. A. PROBLEMS—Three hours

MR. MANLEY, MR. WERNER

Review of all phases of accounting through a study of advanced accounting problems as taken from various C. P. A. examinations. Prerequisites: Accounting 202, 211, 231.

# BIOLOGY

Professor Reif; Instructors Dague, and Namisniak.

Two choices are open to the student of Biology. He may take either a Bachelor of Science or a Bachelor of Arts course. The course that is selected is largely determined by the professional objective of the

The curriculum leading to the degree Bachelor of Arts in Biology is intended for persons who desire a broad liberal background with a specialization in Biology. The prescribed curriculum permits a wide

choice of cultural subjects and is designed for those who wish to write in the field of Natural History, those who wish to enter museum work, those whose aim is teaching at the college level, and those who plan graduate work in the Natural Sciences. The requirements for a major in Biology are listed on page 45.

BIO. 100. BIOLOGICAL SCIENCE—Three hours

MISS DAGUE

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—Five hours each semester

General Zoology surveys the entire animal kingdom, outlines the history of Biology, explains the organization of living matter, teaches the structure of representative animals, the methods of their classification, and the basic principles of Genetics, Embryology, Evolution, and Ecology. Class, three hours a week; laboratory, four hours a week.

BIO. 112. GENERAL BOTANY—Five hours 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, three hours a week; laboratory, four hours a week.

BIO. 113. BOTANICAL TAXONOMY—Five 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—Five hours

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.

MR. REIF BIO. 202. HISTOLOGY AND ORGANOLOGY—Five hours

Histology presents a study of the cells which compose normal tissues, and Organology considers the arrangement of tissues into organs and organ systems. The preparations studied in the laboratory are predominantly mammalian and human material. Class, two hours; laboratory, six hours.

Bio. 211-212. BACTERIOLOGY—Five hours each semester

MRS. NAMISNIAK

Bacteriology 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.

Bacteriology 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.

BIO. 223. ENTOMOLOGY

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.

Bio. 251-252. Physiology—Four hours each semester Miss Dague

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, four hours a week.

Bio. 261. GENETICS—Five hours

MISS DAGUE

Genetics presents the principles of inheritance of normal characters and variations of those characters in plants and animals. Laboratory work includes experiments and problems on the kinds, causes, and measurements of genetic variations. Class, two hours a week; laboratory, six hours a week.

BIO. 262. EMBRYOLOGY—Five hours

MISS DAGUE

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.

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

Seminar in Biology 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.

# BUSINESS ADMINISTRATION

Professor Rosenberg; Associate Professors Agranat, Morris; Assistant Professor Williams; Instructors Bachman, Boyce, Cooney, Farrar, Laggan, McLaughlin, Manley, Munts, Riley, Rokosz, Werner, Whitby.

B.A. 100. Survey of Business—Three hours

A basic course in the essentials of modern business. Studies are made of problems pertaining to administrating and financing the organization of enterprise; manufacturing and distribution of goods; personnel problems; governmental policies toward business.

B.A. 114. SALESMANSHIP—Three hours

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

Prerequisite: Economics 102 or approval of instructor.

B.A. 209. BUSINESS CORRESPONDENCE AND REPORTS—Three hours

MR. WILLIAMS

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

B.A. 216. ADVERTISING—Three hours

A survey of the different departments of advertising work, including copy, art, display, engraving, trade-marks, and media; advertising as a social force.

Prerequisite: Economics 102.

B.A. 217. TRANSPORTATION—Three hours

MR. ROSENBERG

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

Prerequisite: Economics 102.

B.A. 218. CREDITS AND COLLECTIONS—Three hours Mr. ROSENBERG

The fundamentals of credit; investigation, analysis of risks; collection plans and policies. Special attention given to the organization of credit and collection offices.

Prerequisites: Economics 102, Accounting 102.

B.A. 220. REAL ESTATE—Three hours

MR. BOYCE

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. Cooney, Mrs. Munts, Mr. Agranat

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.

B.A. 225. Corporation Finance—Three hours

Mr. Agranat, Mr. Laggan, Mr. Rosenberg

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. Agranat, Mr. Laggan

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. Boyce

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.

B.A. 232. Business Law—Sales, Agency, Bailment—Three hours MR. BOYCE, MR. MANLEY

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. BOYCE, MR. MANLEY

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 con-

Prerequisites: Business Administration 231, 232, Accounting 102.

B.A. 234. Business Law—Property—Three hours

MR. BOYCE, MR. MANLEY

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

Prerequisites: Business Administration 231, 232, Accounting 102.

B.A. 235. INDUSTRIAL MANAGEMENT—Three hours

Instructor to be announced

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 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.

B.A. 237. Production Management—Three hours MR. RILEY

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

Prerequisite: Economics 223.

MR. RILEY B.A. 239. SALES MANAGEMENT—Three hours

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.

MR. BOYCE B.A. 240. PROPERTY INSURANCE—Three hours

The fundamentals of fire and marine insurance.

Prerequisite: Business Administration 234 or approval of Instructor.

MR. BOYCE B.A. 241. LIFE INSURANCE—Three hours

The fundamentals of life and casualty insurance, and fidelity and surety bonds.

Prerequisite: Approval of Instructor.

#### **CHEMISTRY**

Professor Bastress; Assistant Professor Bone; Instructor Ditoro, Gottlieb, Markowitz, and Kuzmak.

Students wishing to study Chemistry shall select the Bachelor of Science in Chemistry since a major in Chemistry is difficult to arrange in the Liberal Arts program.

CHEM. 101. GENERAL INORGANIC CHEMISTRY—Four hours

MISS BONE, MR. DITORO, MR. MARKOWITZ

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 MISS BONE, MR. DITORO

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. MARKOWITZ

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. GOTTLIEB

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. GOTTLIEB

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 the aliphatic series. 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. ADVANCED ORGANIC CHEMISTRY—Two hours

Mr. Bastress

Special topics in Organic Chemistry, including theories of organic reactions.

Prerequisite: Chemistry 231.

CHEM. 241-242. PHYSICAL CHEMISTRY—Four hours each semester
MR. MARKOWITZ

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.

Prerequisites: Chemistry 121, Mathematics 126, Physics 202.

CHEM. 243. ADVANCED PHYSICAL CHEMISTRY—Two hours

MR. MARKOWITZ

A study of chemical equilibrium, using the methods of modern thermodynamics. Class, two hours a week.

Prerequisite: Chemistry 242.

CHEM. 244. ADVANCED INORGANIC CHEMISTRY—Two hours

MR. GOTTLIEB

A course designed to introduce the student to the modern theories of Inorganic Chemistry.

Prerequisite: Chemistry 242.

CHEM. 251-252. BIOLOGICAL CHEMISTRY—Three hours

MR. BASTI

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 231.

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.

#### **ECONOMICS**

Professor Rosenberg; Associate Professor Agranat; Instructors Cooney, Farrar, Laggan, Munts, Riley, Whitby.

Students who major in Economics in the Bachelor of Arts course are required to complete 24 hours of work in Economics beyond Economics 101 and 102. The 24 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

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

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. 212. Government and Business—Three hours Mr. Farrar

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.

Prerequisites: Political Science 103, Economics 102.

Ec. 223. Labor Problems—Three hours Mr. Rile

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. Agranat, Mr. Cooney, Mr. Laggan

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

The Staff

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. Cooney, Mr. Werner

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 205.

Ec. 229. Comparative Economic System—Three hours Mr. Farrar

The institutions of planned economy of the U.S.S.R. and that 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. Agranat, Mr. Farrar

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 The Staff

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.

Prerequisite: Approval of Instructor.

Ec. 232. Economic Statistics—Three hours The Staff

A continuation of Economics 231. This course will include timeseries analysis, construction of index numbers, methods of correlation analysis, multiple and partial correlation, and test of significance for samples.

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: Business Administration 209.

Ec. 238. Economic History—Three hours

MR. AGRANAT, MR. FARRAR

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. AGRANAT, MR. FARRAR

This course is intended to coordinate the work of the special courses pursued in the general field of Economics and business. A more penetrating analysis of economic forces that can be undertaken in the elementary Economics courses.

Prerequisite: Economics 102.

Ec. 244. History of Economics Thought—Three hours The Staff

A study of the historical development of economic doctrines. The writings of the leading thinkers in the field of Economics, beginning with the Greeks and Romans and continuing to the present. The leading economic movements and schools of thought.

Prerequisite: Approval of Instructor.

Ec. 245. Consumer Economics—Three hours

Mr. Agranat, Mr. Cooney, Mr. Rosenberg

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. Economic Investigation—Three hours

MR. AGRANAT, MR. FARRAR

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.

#### ENGINEERING

Associate Professor Hall; Assistant Professor Heltzel; Instructors Ditoro, Thomas, and Williams.

ENGI. 100. ENGINEERING PROBLEMS—One hour

Mr. Heltzel, Mr. Williams

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. Instruction in the use of the slide rule necessary to problem solution. Graphs. Practicum, three hours a week.

ENGI. 102. BASIC DRAWING—Three hours

MR. HELTZEL

A basic course covering the elements of projection drawing and descriptive geometry necessary for students of Chemistry and Physics. It includes lettering, use of instruments, sketching, orthographic and isometric drawing, dimensioning, and the analysis and solution of space problems involving the projection and revolution of points, lines and planes. Intersections and developments. *Practicum*, seven hours a week.

ENGI. 105. ENGINEERING DRAWING—Three hours Mr. Heltzel

This and the following course bear the same relation to the engineering profession as the subject of English bears to our daily life. Technical sketching and vertical freehand lettering. Use and care of instruments, orthographic and auxiliary projection drawing with dimensions and sections; isometric drawing; tracings and reproduction processes. *Practicum*, seven hours a week.

Engl. 106. Engineering Drawing and Descriptive Geometry

Three hours

Mr. Heltzel

Augments Engineering 105. Application of standard conventions to the execution of detail and assembly drawings. Application of the principles of Descriptive Geometry to the solution of engineering space-problems by the projection and revolution of points, lines, planes and solids. Intersections and developments. *Practicum*, seven hours a week.

Prerequisite: Engineering 105.

#### CHEMICAL ENGINEERING

C.E. 206. STOICHIOMETRY—Three hours

MR. DITORO

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 203; Physics 201. Co-requisite: Physics 202.

#### CIVIL ENGINEERING

C.E. 103. PLANE SURVEYING—Three hours

MR. WILLIAMS, 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. WILLIAMS, 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—Four hours

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, geartooth outlines and their application, epicyclic gear trains. Class two hours a week: Practicum six hours a week.

Prerequisite: Engineering 106, Mathematics 122, Physics 201.

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

Prerequisite: Physics 201, Mathematics 125. Co-requisite: Mathematics 126.

M.E. 212. MECHANICS II. DYNAMICS—Three hours 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; Associate Professor Davies; Assistant Professors Donnelly, Kruger, E. Williams, and G. Williams; Instructors Conway, Evans, Groh, Grun, 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 which the major must carry in English should be so distributed as to include an advanced course in Composition or Journalism, three hours of work in Linguistics (English 201, 203, or 205) and a minimum of fifteen hours in Literature, three of which must be reserved for English 215.

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.

#### COMPOSITION

ENG. 99. REMEDIAL ENGLISH—No credit THE STAFF A remedial course for students whose rating in the English placement test is unsatisfactory. Three hours.

Eng. 101. Composition—Three hours Principles of exposition; collateral reading; writing of themes.

Eng. 102. Narrative and Descriptive Writing—Three hours Elementary narration and description; collateral reading; writing of

Prerequisite: English 101.

Eng. 105. Advanced Exposition—Three hours

MRS. WILLIAMS, MR. DONNELLY

Study of the principles of exposition; types of exposition. Collateral reading; themes. Special sections for students interested in Science. Prerequisite: English 101 or exceptionally high rating in the English

placement test.

Eng. 106. Short Story—Three hours

MRS. WILLIAMS

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

Prerequisite: English 101 or 105.

#### JOURNALISM

ENG. 121. JOURNALISTIC WRITING

Mrs. WILLIAMS

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. 122. JOURNALISTIC WRITING

MRS. WILLIAMS

This course supplements English 121. Instruction in handling important assignments: accidents, disasters, elections, conventions, meetings, crime; covering the major beats: city hall, court house, police headquarters, federal building, labor, business, sports, society; editing copy, newspaper style, writing heads; measuring readability, semantics.

Visit to local and neighboring newspaper offices and printing plants. Term paper: series of articles suitable for newspaper on timely subject affecting the College or community.

Prerequisite: English 121.

ENG. 123. PUBLIC RELATIONS

MRS. WILLIAMS

Recent development in fields of: public opinion, propaganda, public relations. Use of public opinion polls by editorial and advertising offices of newspapers; the Continuing Study of Newspaper Reading by the Advertising Research Foundation. Recognizing propaganda, use of rumor, pictures, well known devices. Study of pressure groups and lobbies, government publicity, national publicity campaigns, press releases. Special attention is given to the 2,300 trade journals and 6,000 house organs covering the industrial, merchandising, and professional fields. Weekly themes.

Prerequisite: English 102.

ENG. 124. FEATURE WRITING

MRS. WILLIAMS

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. WORLD LITERATURE—Four hours Miss CRAIG, MR. DAVIES Survey of western world literature to the beginning of the eighteenth century; lectures, term papers, quizzes, conferences, collateral reading. Prerequisite: English 101 and 102, or substitute in composition.

Eng. 152. World Literature—Four hours

Mr. Davies, Mr. Donnelly, Mr. E. Williams

Continuation of survey, bringing the study of literature down to the

Prerequisite: English 151.

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. 203. ANGLO-SAXON—Three hours

Study of the language and literature of Old English; reading of repre-MR. DAVIES sentative selections.

Prerequisite: English 152 and consent of instructor.

ENG. 205. CHAUCER—Three hours

Miss Craig Study of the linguistic features of late Middle English; reading 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

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

Prerequisite: English 152.

Eng. 216. MILTON AND HIS CONTEMPORARIES—Three hours

MISS CRAIG

Study of the poetical works of John Milton and his contemporaries; lectures, discussions, written reports. Prerequisite: English 152.

ENG. 221. AGE OF POPE MR. E. WILLIAMS 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 MR. E. WILLIAMS A study of poetry and the 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 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 The 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 The study of the works of Byron, Shelley, Keats and the prose writers contemporary with them.

Prerequisite: English 152.

MR. DAVIES ENG. 259. TENNYSON AND BROWNING—Three hours Study of the poetry of Alfred Tennyson and Robert Browning and its relations to other literature of the nineteenth century.

Prerequisite: English 152.

MR. DAVIES ENG. 260. VICTORIAN PROSE—Three hours 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. 269. Contemporary Literature—Three hours

MRS. G. WILLIAMS, MR. KRUGER

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

Prerequisite: English 152.

Eng. 275. Teaching of English—Three hours 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 seniors majoring in English.

ENG. 283. AMERICAN LITERATURE—Three hours Mr. E. WILLIAMS Survey of American Literature from the beginning to the Civil War. Prerequisite: English 152.

ENG. 284. AMERICAN LITERATURE—Three hours Mr. E. WILLIAMS Survey of American Literature from the Civil War to the present time. Prerequisite: English 152.

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. EVANS 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. ORAL INTERPRETATION—Two hours

The principles and methods of oral interpretation of common prose and poetic forms are studied, with frequent practice in class; emphasis throughout is upon the sensitive understanding and appreciation of the selections read.

Prerequisite: English 131 and 132.

Eng. 134. Fundamentals of Speech for Technical Students Three hours MR. KRUGER

Similar to English 131, but with an extra hour of work directed to the specific needs of the student.

Eng. 233. 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.

## FOREIGN LANGUAGES

Associate Professor Disque; Assistant Professors Dworski, Mitana, Vujica; Instructors Davidoff, McAniff, Strmen, Zekan.

F.L. 99. FUNDAMENTALS OF COMPARATIVE GRAMMAR—No credit THE STAFF

A course designed to explain as briefly and as simply as possible the principles of grammar which cause difficulty for English-speaking persons studying a foreign language. This course may be required of all students who demonstrate their inadequacy in grammar. One hour.

#### FRENCH

A major in French consists of twenty-four hours, exclusive of French 101 and 102.

FR. 101. ELEMENTARY FRENCH—Three hours

MR. DISQUE, MISS DWORSKI, MISS McANIFF Introduction to French grammar; practice in reading, writing, and

FR. 102. ELEMENTARY FRENCH—Three hours

Mr. Disque, Miss Dworski, Miss McAniff

Continuation of French 101.

Prerequisite: French 101.

speaking the language.

Fr. 103. Intermediate French—Three hours

Mr. Disque, Miss Dworski

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

MR. DISQUE, MISS DWORSKI

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 field of interest in the Humanities, the Social Sciences, or the Natural Sciences.

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 and the commonest expressions dealing with activities of everyday life. Use of records and the mirrophone to acquire fluency in speaking

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

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 a number of representative selections from different periods of French literature.

Prerequisite: French 104 or the equivalent.

FR. 203. FRENCH CLASSIC DRAMA—Three hours MISS DWORSKI Study of selected works of Corneille, Moliere, and Racine. Prerequisite: French 201-202 or the equivalent.

Fr. 204. French Literature of the Seventeenth Century Miss Dworski Three hours

Study of classicism and the outstanding writers of the seventeenth century, other than the dramatists. Three hours.

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 Miss Dworski

Study of Romanticism, Realism, Naturalism, the Parnassian poets, and Symbolism.

Prerequisite: French 201-202 or the equivalent.

Fr. 207. THE NINETEENTH CENTURY FRENCH NOVEL—Three hours MISS DWORSKI

The development of the French novel in the nineteenth century, with special emphasis on Hugo, Stendhal, Balzac, Flaubert, and Zola.

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.

FR. 209. CONTEMPORARY FRENCH PROSE—Three hours

Miss Dworski

Study of selected works from representative contemporary writers. Prerequisite: French 201-202 or the equivalent.

#### **GERMAN**

A major in German consists of twenty-four hours, exclusive of German 101 and 102.

GER. 101. ELEMENTARY GERMAN—Three hours

MR. DISQUE, MR. VUJICA

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

GER. 102. ELEMENTARY GERMAN—Three hours

MR. DISQUE, MR. VUJICA

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

MR. DISQUE, MR. VUJICA

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

MR. DISQUE, MR. VUJICA

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 Reading of selections from scientific German.

MR. DISQUE

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

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

Poet of German idealism.

Prerequisite: German 201-202 or equivalent.

GER. 205. NINETEENTH CENTURY GERMAN DRAMA—Three hours

MR. DISOUE

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.

#### LATIN

Assistant Professor Vujica.

LAT. 101. ELEMENTARY LATIN—Three hours

A course in beginning Latin, designed to give the student a fundamental knowledge of grammar, forms and syntax. Emphasis is placed on etymological influences of Latin on English in an attempt to instill the habit of associating Latin words and their English derivatives.

LAT. 102. ELEMENTARY LATIN—Three hours MR. VUJICA A continuation of 101.

MR. VUJICA LAT. 103. INTERMEDIATE LATIN—Three hours

A rapid review of grammatical forms and principles and reading of easy prose selections, including Caesar's Gallic War. The reading selections are intended to extend and deepen the knowledge of language as well as to acquaint the student with the various aspects of ancient life.

Prerequisite: Latin 102 or two years of high school Latin.

MR. VUJICA LAT. 104. INTERMEDIATE LATIN—Three hours

Reading of the masterpieces of Latin literature, such as the works of Pliny, Cicero, Vergil, and Ovid. A general survey of Latin literature and culture stressing the important contributions of the Romans to the

Prerequisite: Latin 103 or three or more years of high school Latin.

#### POLISH

Pol. 101. Elementary Polish—Three hours MR. MITANA Elements of phonetics and grammar. Gradual building up of vocabulary. Exercises in simple conversation and writing.

POL. 102. ELEMENTARY POLISH—Three hours Continuation of Polish 101.

MR. MITANA

Prerequisite: Polish 101.

Pol. 103. Intermediate Polish—Three hours MR. MITANA Exercises in sentence structure, colloquial language, and idioms. Attempts at composition and more extensive conversation.

Prerequisite: Polish 102 or equivalent.

Pol. 104. Intermediate Polish—Three hours MR. MITANA Continuation of Polish 103. Introduction to the study of Polish civilization as reflected in simple literary works. Exercises in written

Prerequisite: Polish 103 or equivalent.

Pol. 106. Polish Conversation—Three hours MR. MITANA Intensive practice in the spoken language with emphasis on idiomatic usage.

Prerequisite: Polish 104 or equivalent.

Pol. 107. Polish Composition—Three hours MR. MITANA Analysis of form and style. Emphasis on original composition and techniques of translation.

Prerequisite: Polish 104 or equivalent.

Pol. 201-202. Main Currents in Polish Literature

Three hours each semester

Broad outlines of main literary trends and movements against the background of the general cultural situation in a given period. Study of the development of Polish culture from the earliest times. Polish contributions to Western civilization.

Prerequisite: Polish 104 or equivalent.

Pol. 203. The Golden Age of Polish Literature—Three hours

MR. MITANA

Study of Polish Literature of the sixteenth century as represented by poets, political and religious writers, such as Rey, Kochanowski, Modrzewski, and Skarga.

Prerequisite: Polish 201-202 or equivalent.

POL. 204. POLISH ROMANTIC POETRY—Three hours Study of Poland's great poets of the Romantic Period, particularly Mickiewicz, Slowacki, Krasinski, and Norwid.

POL. 205. NINETEENTH CENTURY POLISH NOVEL—Three hours

The development of the Polish novel in the nineteenth century with special attention given to the works of Sienkiewicz, Prus, Reymont, and

Prerequisite: Polish 201-202 or equivalent.

#### SLOVAK

SLO. 101. ELEMENTARY SLOVAK—Three hours MR. ZEKAN Drill in reading, speaking, and hearing the language, with emphasis on pronunciation and the elements of grammar.

SLO. 102. ELEMENTARY SLOVAK—Three hours MR. ZEKAN Continuation of Slovak 101.

SLO. 207. HISTORY OF SLOVAK CULTURE—Three hours Mr. STRMEN History of Slovak culture from the earliest times.

SLO. 208. HISTORY OF SLOVAK CULTURE—Three hours Mr. STRMEN Continuation of Slovak 207.

#### SPANISH

A major in Spanish consists of twenty-four hours, exclusive of Spanish 101 and 102.

SP. 101. ELEMENTARY SPANISH—Three hours

MR. DAVIDOFF, MR. MITANA

A study of basic elements of grammar, with extensive oral exercises. Introduction to the reading of simple Spanish prose.

SP. 102. ELEMENTARY SPANISH—Three hours

MR. DAVIDOFF, MR. MITANA

Continuation of 101 with special emphasis on conversational approach and the natural idiom.

Prerequisite: Spanish 101 or equivalent.

Sp. 103. Intermediate Spanish—Three hours

Mr. Davidoff, Mr. Mitana

Exercises in simple oral and written composition. Intensive review of Spanish grammar.

Prerequisite: Spanish 102 or equivalent.

Sp. 104. Intermediate Spanish—Three hours

MR. DAVIDOFF, MR. MITANA

Introduction to the study of Spanish civilization. Readings from selected Spanish authors.

Prerequisite: Spanish 103 or equivalent.

Sp. 105. COMMERCIAL SPANISH—Three hours

Mr. Davidoff, Mr. MITANA

The study of Spanish as it pertains to economic relations between the Spanish-speaking countries and the United States. Special emphasis on business letter writing.

Prerequisite: Spanish 103 or equivalent.

Sp. 106. Spanish Conversation—Three hours

MR. DAVIDOFF, MR. MITANA

Intensive practice in the spoken language. Emphasis on idiomatic

Prerequisite: Spanish 104 or equivalent.

SP. 107. SPANISH COMPOSITION—Three hours

MR. DAVIDOFF, MR. MITANA

Stress will be laid on original composition and techniques of trans-

Prerequisite: Spanish 104 or equivalent.

Sp. 201-202. MAIN CURRENTS OF SPANISH LITERATURE

Three hours each semester

MR. MITANA

A survey of the development of Spanish literary thought from the Middle Ages to the present time.

Prerequisite: Spanish 104 or equivalent.

Sp. 203. The Golden Age of Spanish Literature—Three hours

MR. MITANA

Study of the great authors of the sixteenth and seventeenth centuries with emphasis on the works of Cervantes, and Lope de Vega.

Prerequisite: Spanish 201-202 or equivalent.

SP. 204. NINETEENTH CENTURY SPANISH DRAMA—Three hours

MR. MITANA

Representative works in the field of drama; lectures and individual

Prerequisite: Spanish 201-202 or equivalent.

Sp. 205. NINETEENTH CENTURY SPANISH NOVEL—Three hours

MR. MITANA

The development of the Spanish novel in the nineteenth century. Prerequisite: Spanish 201-202 or equivalent.

SP. 206. CONTEMPORARY SPANISH LITERATURE—Three hours

MR. MITANA

Reading and discussion of representative works in prose and poetry of modern Spanish writers. The significance of the generation of 1898. Prerequisite: Spanish 201-202 or equivalent.

#### HISTORY

Professor Thatcher; Assistant Professor Mui; Instructor Partridge.

A major in History shall consist of twenty-four hours, of which twelve shall be in courses numbered 200 or above. Majors in History are required to take both History 101 and 102 and History 107 and 108; History 101 and 102, however, may not be counted toward the twenty-four hours constituting a major. Majors who wish to teach must elect History 120, but this course may not be counted toward a major.

HIST. 101-102. HISTORY OF WESTERN CIVILIZATION

Three hours each semester

THE STAFF

A chronological survey of the civilization of the western world from Egypt and Mesopotamia to the present time. The development of government, social life, religion, scientific thought, literature and philosophy, and commerce and industry will be traced in general outline.

Hist. 105. English History to the Elizabethan Period

Three hours

MR. Mul

A general course on the development of the English nation. The principal topics are: Britain before the Anglo-Saxons, the Anglo-Saxon period, the Norman Conquest, the development of English common law, the beginnings of parliaments, towns and universities, continental wars, the Tudor dynasty, and the Revival of Learning.

HIST. 106. ENGLISH HISTORY FROM THE REIGN OF ELIZABETH

Three hours

MR.

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.

HIST. 107. AMERICAN HISTORY TO 1865-Three hours

MR. THATCHER

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

HIST. 108. AMERICAN HISTORY SINCE 1865—Three hours

MR. THATCHER

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

HIST. 120. AMERICAN AND PENNSYLVANIA HISTORY—Three hours

MR. PARTRIDGE

A course of study based upon the documents of American and Pennsylvania History. Emphasis will be placed upon the foundations of American civilization and the rise of significant institutions during the national and state periods. Social, economic, and cultural aspects as well as the political will be treated. This course meets the requirements for permanent certification of teachers by the Commonwealth of Pennsylvania.

Prerequisite: Two courses in History or the consent of the instructor.

HIST. 206. THE UNITED STATES IN THE TWENTIETH CENTURY

Three hours

MR. THATCHER

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

Prerequisite: History 107 and 108.

HIST. 223-224. AMERICAN CONSTITUTIONAL HISTORY

Three hours each semester MR. THATCHER
A study of the origins of the American Constitution and the growth
of the American constitutional system with special attention to the role
of the Supreme Court.

Prerequisite: 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 107-108.

HIST. 228. HISTORY OF THE FOREIGN POLICY OF THE UNITED STATES
Four bours

MR. THATCHER

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

Prerequisite: History 107, 108, and Political Science 101. Restricted to Juniors and Seniors.

HIST. 231. HISPANIC AMERICAN HISTORY—Three hours

A study of the transit of civilization from Spain and Portugal to the New World and of the rise and growth of the Hispanic American Republics.

Prerequisite: Two courses in History or the consent of the instructor.

HIST. 234. EAST ASIA IN MODERN TIMES—Three hours Mr. Mui

This course deals with the impact of western civilization on the different traditions and institutions of China, Japan, and Southeast Asia, with emphasis on the persistent problems arising out of the contact of civilizations and their possible solutions.

Prerequisite: History 101 and 102.

HIST. 235. SOVIET RUSSIA—Three hours MR. MUI

A study of the culture of the peoples of the U.S.S.R. against the pre-Revolution background.

Prerequisite: History 101 and 102.

HIST. 255. EUROPE IN THE NINETEENTH CENTURY—Three hours

MR. PARTRIDGE

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. RECENT EUROPEAN HISTORY—Three hours

MR. PARTRIDGE

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 Professors Richards, Hull, and Wasilewski; Instructor Creasy.

The major in mathematics is outlined on page 46.

MATH. 98. SOLID GEOMETRY—Two hours

THE STAFF

Prerequisite: Plane Geometry.

MATH. 99. ALGEBRA REVIEW—Three hours

THE STAFF

Secondary Algebra, extending through simultaneous quadratic equations.

MATH. 101. FUNDAMENTALS OF MATHEMATICS—Three hours

The origin and growth of the basic mathematical ideas; nature of postulational thinking.

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 Trogonometric functions, solutions of triangles, trigonometric identi-

ties, 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, nominal and effective rates, equations of value, force of interest, amount and present value of simple annuity, deferred annuities, annuities due, perpetuities, general annuities certain, bonds, price of bond bought between interest dates, 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

Prerequisite: Mathematics 105.

MATH. 125. DIFFERENTIAL CALCULUS—Four hours

The STAFF
Limits, derivatives, differentials, applications, theorem of mean value.

Prerequisite: Mathematics 122.

MATH. 126. INTEGRAL CALCULUS—Four hours

The Staff
Integration, fundamental theorem, applications, series, partial differentiation, multiple integrals.

Prerequisite: Mathematics 125.

Math. 127. The 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, Greek Geometry, Arithmetic, and Algebra, contributions of the Romans, Maya, Chinese and Japanese, the Hindus and the "Arabic" notation, the Arabs as custodians of Mathematics in the Middle Ages, awakenings in Europe, Vieta and the Renaissance, Fermat and Descartes, Newton's importance in the seventeenth century, French mathematicians of the eighteenth century, the great expansion and the strengthening of the foundations in the nineteenth century, the trend to abstraction in this century.

Prerequisite: Mathematics 126.

MATH. 213. THEORY OF EQUATIONS—Three hours Miss Hull Roots and graphs of equations, determinants and matrices, miscellaneous topics.

Prerequisite: Mathematics 125.

MATH. 216. SOLID ANALYTIC GEOMETRY—Three hours Miss Hull Study of space Geometry by means of coordinate systems, including lines and planes and the relations between them, systems of planes, parametric equations of a surface, cylinders, surfaces of revolution, spheres, quadric surfaces, reduction of quadric surfaces to canonical forms.

Prerequisite: Mathematics 125.

MATH. 218. MATHEMATICS OF FINANCE II—Three hours Mr. CREASY 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.

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. CREASY

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

Solution of ordinary differential equations, applications.

Prerequisite: Mathematics 126.

MATH. 251. ADVANCED CALCULUS I—Three hours MR. RICHARDS An elaboration of the theory and applications of calculus. Prerequisite: Mathematics 126.

MATH. 252. ADVANCED CALCULUS II—Three hours Mr. RICHARDS Continuation of Mathematics 251.

Prerequisite: Mathematics 251.

MATH. 256. THEORY OF NUMBERS—Three hours

Divisibility, continued fractions, congruences, quadratic residues, diophantine equations.

MR. RICHARDS

Prerequisites: Twelve hours in Mathematics courses numbered above 200.

#### MUSIC

Assistant Professor Cobleigh; Instructors Balshaw, Henderson, Isaacs, Liva, McHenry, and Moran.

Liberal Arts students wishing to major in Music will follow the program outlined on page 47.

A special program for students wishing to transfer at the end of the second year to colleges training public school teachers of Music is suggested on page 63, and a two-year terminal program is outlined on page 67.

#### APPLIED MUSIC

Individual instruction is offered at all levels of difficulty to students in Piano, Pipe Organ, Voice, Violin, and several Band-Orchestra 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. The student 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. Cobleigh, Mr. Moran

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

Mus. 101-102-103-104. Music Theory—Five hours each course
MR. Cobleigh, MR. Moran

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

The subject matter of the first two semesters of Theory is divided between ear training, two hours; solfeggio, two hours; harmony, one hour. The third and fourth semesters of Theory are divided into ear training, one hour; solfeggio, one hour; harmony, three hours.

There is no prerequisite for Theory 101.

Students may be admitted to the other courses by examination.

Mus. 109. Music History—Three hours

MR. COBLEIGH

The composer and his music related to the social, economic political, and religious background of the period. A survey of musical activity from 1500 to 1800. Offered in alternate years. Given in 1949-50.

Mus. 110. Music History—Three credits

MR. COBLEIGH

Music in the nineteenth century. The rise of Nationalistic Schools. Italian, German, and French opera. Offered in alternate years. Offered in 1949-50.

Mus. 121-122-123-124. BAND—One-half hour a semester Mr. Moran

Membership in the Band is required of all students who are taking the curriculum described on page 63. These students will receive onehalf credit a semester with a total of two credits for four semesters. All students desiring credit for participation in the Band should consult with the Band director.

Mus. 125-126-127-128. Chorus—One-half hour a semester

MR. COBLEIGH

MR. COBLEIGH

Membership in the Chorus is required of all students who are taking the curriculum described on page 63. These students will receive one-half credit a semester with a total of two credits for four semesters. All students desiring credit for participation in the Chorus should consult with the Chorus director.

Mus. 209. Music History—Three hours

A detailed study of one of the following topics:

- (a) The Symphony
- (b) Wagnerian Opera
- (c) Music since 1900
- (d) The Concerto
- (e) Vocal Music
- (f) Beethoven
- (g) Bach
- (h) Brahms
- (i) The Symphonic Tone Poem

The choice of subject material will be determined as far as possible by the interests of those electing the course. Announcement of the topic will be made on or about May 15, for the first semester of the next academic year. All students interested are asked to consult with the Chairman of the Music Department. Offered in alternate years. Offered in 1950-51.

Prerequisite: Music 100.

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Mus. 210. Music History—Three hours

A detailed study of one of the topics listed under Music 209. Announcement of topics will be made on or about December 15, for the second semester of the academic year. All interested should consult with the Chairman of the Music Department before that date. Offered in alternate years. Offered in 1950-51.

Prerequisite: Music 100.

Mus. 215. Instrumentation—Three hours

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.

Mus. 216. Orchestra and Band Arranging—Three hours

MR. MORAN

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

Prerequisite: Music 215.

MR. COBLEIGH Mus. 217. Analysis—Two hours

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 exam-

#### PHILOSOPHY

Assistant Professors Mitana and Vujica; Instructor Schindler.

A major in the combined fields of Philosophy and Religion consists of twenty-four hours in Philosophy and Religion. Philosophy 101 and Religion 101 are not accepted for credit toward a major. The courses may be selected from these two fields as is desired by the student.

PHIL. 101. INTRODUCTION TO PHILOSOPHY—Three hours The Staff

An introduction to the main problems of Philosophy. Among the topics to be considered are the nature of the universe; the origin of life; the nature of mind and soul; the freedom of the will; moral, religious, and aesthetic values; the sources and validity of knowledge. The purpose of the course is to acquaint the student with the traditional solution of these problems in order to interest him in serious and reflective thought, to coordinate his knowledge, and to aid him in gaining an intelligent understanding of the world and life.

PHIL. 102. LOGIC—Three hours

The objective of the course is to familiarize the student with the elementary principles of clear thinking. The use and validity of reasoning, hypothesis, induction, deduction, and other approaches to knowledge in the field of the Natural and Social Sciences will be presented.

DESCRIPTION OF COURSES

PHIL. 203. INDIVIDUAL AND SOCIAL ETHICS—Three hours

MR. SCHINDLER

A study of the great ethical systems such as Hedonism, Formalism, Utilitarianism and Self-Realizationism. The application of moral principles to the life of the state, the family and the economic order. The nature of virtue, conscience, moral character and the relationship of ethics to other fields of knowledge are discussed in this course.

PHIL. 204. PHILOSOPHY OF RELIGION—Three hours Mr. Schindler

The treatment of religious problems in Philosophy; the nature, scope and validity of religious knowledge; forms and expressions of religious behavior. The aim of the course is to give the student an understanding of the basic principles of Religion and the contribution of religious thought to current interpretations of life.

PHIL. 205. AESTHETIC—Three hours

MR. MITANA

Theories of the essential character of beauty, its purpose and standards; the application of general aesthetic principles to poetry and the fine arts; the comparison of the aesthetic with other types of experience.

PHIL. 211. HISTORY OF ANCIENT AND MEDIEVAL PHILOSOPHY Three hours MR. VUJICA

The development of philosophical thought from its appearance in Ionia to the Renaissance. The permanent contributions of the Greek thinkers, particularly Plato and Aristotle, to Western culture. Patristic and scholastic philosophy. The culmination of scholasticism in the systems of Thomas Acquinas and Duns Scotus. Jewish and Mohammedan medieval thought.

Prerequisite: Philosophy 101.

PHIL. 212. HISTORY OF MODERN PHILOSOPHY—Three hours

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 in philosophical speculation.

Prerequisite: Philosophy 101.

PHIL, 213. RECENT AND CONTEMPORARY PHILOSOPHY—Three hours

MR. VU JICA

The principal trends in Twentieth Century philosophies. The contributions of Bergson, James, Dewey, Croce, Russell, Whitehead, Heidegger, Maritain and other living philosophers to the problems and ideas characteristic of the age.

Prerequisite: Philosophy 101.

#### PHYSICAL EDUCATION AND HYGIENE

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, so far as possible, is done out of doors and includes soccer, football, wrestling, tennis, and golf. The indoor work during the winter includes a large number of competitive games.

The College women also are given a thorough medical and physical examination before entering upon the program of Physical Education. During the spring and fall, the work for women consists of outdoor athletics; during the winter, activities such as dancing, basketball, and natural gymnastics are carried on.

P.E. 101-102. PHYSICAL EDUCATION AND HYGIENE

One hour each semester

THE STAFF

This course includes three hours of physical instruction and one hour of class instruction in personal Hygiene each week. It is designed to promote physical coordination, good health habits, and to encourage participation in activities that will provide relaxation and exercise throughout life. Three hours each week.

P.E. 103-104. Physical Education—One hour each semester

THE STAF

This course is a continuation of Physical Education 101 and 102, without the instruction in personal Hygiene.

#### **PHYSICS**

Associate Professor Hall; Assistant Professor Heltzel; Instructors Ditoro and Taylor.

PHYS. 119. METEOROLOGY—Three hours

MR. TAYLOR

A course for the non-science student to enable him to understand and appreciate the universe in which he lives; the methods, concepts, vocabulary, and applications of some of the more outstanding principles of Physics 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. 119. METEROLOGY—Three hours

MR. TAYLOR

A treatment of the fundamentals of meteorology, such as the earth's atmosphere, composition and movement. Atmospheric conditions accompanying 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. 201. GENERAL PHYSICS—Five hours Mr. HALL AND STAFF

A thorough grounding in the physical laws of Nature, meeting requirements for later work in technical courses. Required of all Science students and elective for other students. Mechanics, Heat, and Sound. Instruction by demonstration lecture, recitation and experimental work in the laboratory. Class four hours a week and laboratory three hours a week.

Prerequisite: Mathematics 105; or 107 and 109.

Phys. 202. General Physics—Five hours Mr. Hall and Staff Continuation of Physics 201. Electricity, Light and Modern Physics. Class four hours a week and laboratory three hours a week. Prerequisite: Physics 201.

PHYS. 251. ELECTRICAL MEASUREMENTS—Three hours MR. HALL 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.

## POLITICAL SCIENCE

Assistant Professor Mailey; Instructors Hibbard, and Kazlauskas.

A major in Political Science shall consist of twenty-four hours. All courses except Political Science 100 and 101 are acceptable toward the major. In addition, History 223, 224, and 228, and Economics 212 are also acceptable.

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 the natural science students only. Bachelor of 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 STAFE

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. (Only Juniors and Seniors are eligible.)

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

IR. MAILE

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: Three courses in Political Science.

#### P.S. 208. LABOR LAW

MR. MAILEY

A course dealing with the role of government in labor relations and with the laws affecting conditions of employment and employer-employee relations. History and philosophy underlying labor legislation are stressed.

Prerequisite: Political Science 101.

#### P.S. 210. Comparative Government—Three hours

MR. KAZLAUSKAS

A study of the government of the world. Since political institutions in the American system are traceable to the English, the English Government is stressed.

Prerequisite: Political Science 101.

#### P.S. 212. INTERNATIONAL RELATIONS—Three hours

MR. KAZLAUSKAS

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

Prerequisites: Political Science 101 and 210.

Desideratum. History 107, 108, 255, 256, Economics 225.

## P.S. 213. International Law—Three hours Mr. Mail

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: Three courses in Political Science. Desideratum: History 107, 108, 255, 256.

# P.S. 214. POLITICAL THEORY—Three hours

MR. KAZLAUSKAS

A course dealing with the concepts of justice, law, government, sovereignty, and the state.

Prerequisite: Three courses in political science.

#### **PSYCHOLOGY**

Assistant Professor Dominguez; Instructors Boyle, Guttman, Harker, Kanner, and Riley.

A major in Psychology consists of a minimum of twenty-four hours in this field. Psychology 100 is not accepted toward a major; Sociology 255 is acceptable.

The department requires that Psychology majors substitute one year of a laboratory science in Biology, Chemistry, or Physics in place of Biological Science. Students planning to take graduate work in Psychology must take either French or German to meet future graduate school requirements.

The major in Psychology is designed for students who plan to continue the study of Psychology on a graduate level, or whose interest lies in the teaching of Psychology in college, or in the application of Psychology to such fields as advertising, clinical work, business, or educational or industrial personnel. The student is cautioned that an undergraduate major in Psychology *does not* qualify him for professional psychological work. Advanced graduate study is always required before the individual can qualify as a psychologist. In a great many fields today, the Ph.D. degree is being required for qualification.

Students who wish to become certified by the Pennsylvania Department of Public Instruction as psychological examiners or as public school psychologists should plan their program carefully under the direction of their faculty adviser so that necessary courses may be taken.

Courses numbered above 250 are open to Seniors only.

Psy. 100. General Psychology—Three hours

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.

THE STAFF

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. Recommended for prospective majors.

Prerequisite: Psychology 100.

# Psy. 203. Introduction to Experimental Psychology Three hours Mr. Kanner

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.

Prerequisite: Psychology 100.

# PSY. 204. ADVANCED EXPERIMENTAL PSYCHOLOGY—Three hours MR. KANNER

A more advanced lecture and laboratory course, including practice with the older as well as with the more recent methods employed in psychological research.

Prerequisite: Psychology 203.

Psy. 206. Applied Psychology—Three hours Mr. Kanner

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 Miss Harker

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 Mr. Riley

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 Mr. Riley

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 Miss Harker An introduction to the industrial application of Psychology in the selection, classification, and training of employees; reduction of monotony and fatigue; the maladjustment worker; accident prevention; work

conditions; and employee motivation and morale.

Prerequisite: Psychology 212.

PSY. 252. PERSONNEL PSYCHOLOGY—Three hours MISS HARKER

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 Mr. RILEY

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.

Prerequisite: Psychology 100, 201, and one additional course.

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.

Prerequisite: Psychology 207 and 212.

PSY. 257. ABNORMAL PSYCHOLOGY—Three hours THE STAFF

A general survey of the principal forms of mental abnormalities, with emphasis on causes, symptoms, course, and treatment.

Prerequisite: Psychology 201 and 208. Open to Seniors only.

Psy. 301-302. Research in Psychology—Three hours The Staff
An opportunity to conduct individual research projects under super-

Prerequisite: Permission of head of department and open to Psychology majors only.

#### RADIO

DESCRIPTION OF COURSES

Instructor Morgan and Staff: Hal Berg and Thomas Bigler.

RA. 100. INTRODUCTION TO RADIO—Three hours

MR. MORGAN AND STAFF

An orientation course covering the history, development, organization, and control of broadcasting. Including the international system, social and economic influences, as well as the administration, programming, and operation of the individual station.

RA. 102. RADIO ANNOUNCING—Three hours Mr. MORGAN AND STAFF

A laboratory-studio course in basic microphone techniques, stressing practical experience in the procedures and routines of announcing. Also developing an understanding of the announcer's qualifications, skills, and work.

Prerequisite: Radio 100.

RA. 201. RADIO WRITING—Three hours Mr. Morgan and Staff

An intensive study of the basic principles of good radio continuity writing, providing class instruction in the writing of all kinds of copy: commercial announcements, program continuity, dramatic scripts, etc. Individual exercises and assignments.

Prerequisite: Radio 102.

RA. 202. RADIO NEWS EDITING AND BROADCASTING—Three hours

MR. MORGAN AND STAFF

A course in the editing, building, writing, and presentation of the news program. Information about news sources and the history and development of news broadcasting. Students will be given ample opportunities for actual preparation and presentation of newscasts.

Prerequisite: Radio 102.

RA. 203. CONTROL ROOM TECHNIQUES AND PRODUCTION PROBLEMS
Three hours Mr. Morgan and Staff

A course designed to acquaint the student with the technical aspects of control room operation, such as handling of console and turntables, proper care and cueing of records and transcriptions. Also a study of various production problems, embracing a knowledge of studio production signals, handling of remote broadcasts, et cetera.

Prerequisite: Radio 102.

RA. 204. RADIO ADVERTISING—Three hours Mr. MORGAN AND STAFF A study of Radio Advertising and its relation to other media. Organization of the sales staff, and the selling and servicing of commer-

cial accounts. Problems of time buying, audience measurement, marketing statistics as they relate to local, regional, and national accounts. Prerequisite: Radio 102.

RA. 206. RADIO ACTING AND DIRECTING—Three hours

MR. MORGAN AND STAFF

A workshop course affording opportunity for student participation in radio broadcasts and all types of radio dramatics. Also including experience in the techniques of radio production, tracing the development of a program from the idea stage to the presentation, emphasizing script reading, rehearsal techniques, sound effects, music, et cetera.

Prerequisite: Radio 102.

#### RELIGION

Assistant Professor Vujica; Instructors Friedman and Schindler.

A major in the combined fields of Philosophy and Religion consists of twenty-four hours in Philosophy and Religion. Philosophy 101 and Religion 101 are not accepted for credit toward a major. The courses may be selected from these two fields as is desired by the student.

REL. 101. HISTORY OF RELIGIONS—Three hours

MR. VUJICA, MR. FRIEDMAN

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 MR. FRIEDMAN

A study of the religious thought and practices of the early Hebrews. Codes and critical analysis of the earlier writings of the Old Testament. Comparative studies are made of the Douay, King James and Jewish translations of the Old Testament.

Prerequisite: Religion 101.

REL. 202. THE TEACHINGS OF THE GREAT HEBREW PROPHETS MR. FRIEDMAN Three hours

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.

Prerequisite: Religion 101.

REL. 204. THE LITERATURE OF THE NEW TESTAMENT—Three hours

MR. SCHINDLER A study of the types of literature found in the New Testament. Problems of language and authorship are discussed. 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. Prerequisite: Religion 101.

Professor Rosenberg; Associate Professor Agranat; Instructors Bachman, Cooney, McLaughlin, Riley.

RETAIL MERCHANDISING

R.M. 101. PRINCIPLES OF RETAILING—Three hours MR. COONEY 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. COONEY

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

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. R.M. 205. RETAIL ADVERTISING AND SALES PROMOTION—Two hours

THE STAFF 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. RILEY

Fundamentals of retail selling; constructive attitude; knowledge of merchandise and the store; knowledge of the customer; selling techniques; building permanent business. Laboratory observation; actual R.M. 210. ELEMENTS OF MERCHANDISE—Three hours THE STAFF 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 devel-

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

R.M. 212. Purchases and Merchandise Control—Three hours

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

Prerequisite: Approval of Instructor.

R.M. 214. RETAIL BUYING—Two hours

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.

THE STAFF

R.M. 215. DISPLAY—Two hours Techniques of store arrangement; display of merchandise and services within the store; window display.

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. RILEY

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 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 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; Associate Professor Bedillion; Instructors Davies, Jenkins, Whitby.

S.S. 99. Personal-Use Typewriting—No Credit Miss Bedillion 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

Four hours each semester

MISS BEDILLION

Development of reading and writing skill in Gregg Shorthand; 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. 105-106. SHORTHAND—Two hours each semester Mr. JENKINS Development of reading and writing skill in basic Gregg Shorthand with emphasis on mastering fundamental principles, during the first semester; dictation and transcription, including principles of English during the second semester. Four hours each week. All laboratory.

S.S. 107-108. Typewriting—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 each week.

S.S. 109-110. ADVANCED STENOGRAPHY—Four hours each semester

Review of Gregg Shorthand 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—Two hours each semester

MR. JENKINS Review of Gregg Shorthand 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. Four hours each week.

Prerequisite: Secretarial Studies 106.

S.S. 115-116. ADVANCED TYPEWRITING—Two hours each semester

Development of greater speed and accuracy in Typewriting; review of form and style in typewritten material; application of typing skill to letter writing, tabulation, rough drafts, commercial forms; preparation of telegrams, manuscripts and term papers, stencils and Ditto master copies; transcription from Shorthand notes; development of desirable work habits and attitudes. Laboratory fee required. Four hours each week.

Prerequisite: Secretarial Studies 108.

THE STAFF S.S. 120. SECRETARIAL ACCOUNTING—Three hours Fundamental principles of Accounting and their application to the

keeping of books and records in business and professional offices.

S.S. 201. MEDICAL STENOGRAPHY—Three hours MISS BEDILLION

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. Six hours each week. Two hours lecture, six hours lab-

Prerequisite: Approval of Instructor.

S.S. 203. Speech Reporting—Two hours MISS BEDILLION 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

MISS BEDILLION

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. 206. Office Management—Four bours MISS BEDILLION

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. Six hours each week. Two hours lecture, four hours labor-

Prerequisite: Approval of instructor.

# SOCIOLOGY AND ANTHROPOLOGY

Assistant Professor Symonolewicz, Instructors Chwalek, and Hol-

A major in Sociology consists of twenty-four hours. Although Sociology 100 is a prerequisite for all the courses in Sociology, it is not accepted toward a major in Sociology nor is Sociology 200.

A major in Sociology must include the three following courses: Sociology 255, 265, and 280. Political Science 204 may also be accepted toward the major in Sociology.

The courses given by the Department of Sociology and Anthropology are divided into six 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.

Prerequisite: Two courses in Sociology.

Soc. 285. Social Change—Three hours Mr. Symonolewicz Concepts, theories and methods in the study of social change. Trends and processes producing new situations. Prerequisite: Two courses in Sociology.

#### II Population and Human Ecology

Soc. 215. URBAN SOCIOLOGY—Three hours

MISS HOLBROOK, MR. CHWALEK

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

Prerequisite: Sociology 100.

Soc. 225. Population Problems—Three hours Miss Holbrook A study of qualitative and quantitative aspects of population with special reference to modern trends in growth, composition, migration, and differential rates in relation to the social structure.

Prerequisite: Sociology 100.

# III Social Organization

Soc. 200. Marriage and the Family—Three hours

Mr. Chwalek, Mr. Symonolewicz

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

Prerequisite: Sociology 100.

Soc. 210. Social Institutions—Three hours

MISS HOLBROOK, MR. SYMONOLEWICZ

A study of the nature, development, and functioning of major social institutions.

Prerequisite: Sociology 100.

IV Social Change and Social Disorganization

Soc. 230. Social Problems—Three hours

MISS HOLBROOK, 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

MISS HOLBROOK

Analysis of crime as a form of social behavior. A study of the individual and social factors in juvenile delinquency and criminal careers.

Prerequisite: Sociology 100.

Soc. 245. Introduction to the Field of Social Work Three hours

MR. CHWALEK

A pre-professional exploratory course, dealing with the nature and requirements of the different fields of social work.

Prerequisite: Sociology 100 and Psychology 100.

# V Social Psychology

Soc. 255. Social Psychology—Three hours Mr. Symonolewicz An analysis of the main forms of social behavior. 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.

# VI 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 their classifications; problems of race, mental differences, race mixture; 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.

Prerequisite: Sociology 100.

Soc. 275. Minority Groups—Three hours

MISS HOLBROOK, MR. SYMONOLEWICZ

A study of the ethnic, religious, and racial minority groups in American society; their origin, social organization, and contributions to American culture; the processes of group conflict and acculturation.

Prerequisite: Sociology 100.

# Education

#### SAFETY

SAFETY 1. DRIVER EDUCATION AND TRAFFIC SAFETY IN THE SECOND-ARY SCHOOLS

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

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

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. ORGANIZATIONS AND ADMINISTRATION IN SAFETY EDU-CATION

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

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

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.

#### BUCKNELL UNIVERSITY COURSES

Professor Sauvain; Associate Professor Farley; Assistant Professor Millward; Instructors Dominguez, Hall, Miller and Morris.

The Department of Education is responsible for the professional training of teachers. In order that only persons who are capable of rendering adequate service may be sent into the profession, the privilege of taking the course in practice teaching (Education 207) is restricted to students whose scholastic average for the Freshman and Sophomore years is C or better. Additional requirements are good health, character, personality, and acceptable spoken and written English. Students planning to teach should arrange their programs so that they may take the practice teaching, Education 207, in either semester of the Senior year. Students will be accepted for practice teaching on the basis of the recommendation of the Education Committee and will be required to do their practice teaching one-half of each day throughout the semester, meeting with the Supervisor of Teacher Training three afternoon periods per week for regular class work.

#### 101. Introduction to Education—Three hours

A broad, general introduction to the field of Education, the various branches of the service, preparation demanded by each branch, the outstanding problems in the field at the present time, teaching as a profession, place of teaching as a profession in the social order, the preparation and personal qualifications required of the successful teacher.

#### 201. EDUCATIONAL PSYCHOLOGY—Three hours.

A psychological study of the nature of the learner and the nature of the learning process. A consideration of such problems as the importance of the interaction of the child's and the teacher's personalities, the educational importance of individual differences, motivation in education, transfer of training, and a psychological evaluation of methods of teaching.

Prerequisite: Psychology 100.

#### 207. STUDENT TEACHING—Eight hours

Students observe several teachers and teach in co-operation with and under the supervision of experts. Co-operative planning, teaching, and evaluation of results are emphasized. Large group, small group, and individual conferences provide opportunity for discussion of principles and problems.

Prerequisite: Two courses in Education, including Education 201.

# 214. GUIDANCE—Three hours

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

Prerequisite: Education 201.

# 216. OCCUPATIONS AND OCCUPATIONAL RESEARCH—Three hours

A survey of fields of work in America with consideration of requirements for entrance, income, likely future development, etc.; methods of presenting such information to pupils; job analysis and research techniques in vocational guidance, placement, and follow-up. Required for Pennsylvania guidance teachers' and counselors' certificates. Juniors, Seniors, and graduate students.

Prerequisite: Education 201.

# 250. Extra-Curricular Activities—Two hours

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

# 251. THE MODERN ELEMENTARY SCHOOL—Two hours

This course is concerned with trends in the modern elementary school. An effort is made to evaluate the aims, objectives, curriculum, organization, and administration of the better elementary schools of today with a view to improving the effectiveness of our schools in attaining the democratic ideal.

# 258. VISUAL EDUCATION—Two hours

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

Prerequisite: Education 201.

# 303. EDUCATIONAL MEASUREMENT—Three hours

A consideration of the characteristics, uses, and interpretations of intelligence and subject-matter tests available for school use. A study of the usual methods of treating scores. Supervised administration, scoring and interpretation of standardized tests in public schools. Practice in the construction of objective tests.

#### 304. Public School Administration—Two hours

The principles of educational organization and administration in their application to state, city and county schools. For students who plan to enter administrative or supervisory work. Required course for all administrative certificates.

#### 356. SECONDARY SCHOOL SUPERVISION—Two hours

A discussion of whether supervision can be carried on in the secondary school. If so, what philosophy must be accepted, and what techniques of supervision will succeed among a group of specialists.

# 363. Organization and Administration of Guidance Programs Two hours

The place of guidance in the school program; consideration of types of guidance programs that appear in a variety of school systems; principles that should underlie the organization of such a program. Each student attempts to plan a guidance organization for a specific school system.

#### Certification Requirements for Secondary School Teachers Pennsylvania

#### Teaching Subjects:

- (a) Academic subjects: 18 semester hours in each subject. Exceptions in Science and Social Studies will be explained in the Education office.
- (b) Commercial subjects: A total of 30 hours in commercial subjects with specific requirements as follows:

	Semester nours
Bookkeeping and Accounting	12
Commercial and Economics Geography	6
Commercial Law	
Commercial Mathematics	3
Office Practice	3
Shorthand	9
Typewriting	6
Salesmanship	
Junior Business Training	
Economics	
Retail Selling	12
Business English: (a) Twelve semester hours in	n English. (b)
Not less than two semester hours in Business	English or Cor-
respondence.	

#### Education Courses:

Education 101, 201, 207, and six hours from an approved list of electives. History 220 is required for all certificates.

To the teacher's certificate may be added Guidance Certification for the teaching of Occupational Information which requires six semester hours (Education 214, Education 216, and Economics 223), in addition to twelve semester hours in Social Sciences. This certificate is required for teachers of Occupational Information.

# New Jersey

## Basic Requirements:

English, 12 hours; Social Studies, 12 hours; Science, 6 hours.

# Teaching subjects:

A major of 30 semester hours, and a minor of 18 semester hours or two minors of 12 semester hours each in prescribed fields. For prescribed fields, consult the department of Education.

## Education Courses:

Students planning to teach in New Jersey, should take at least one two-hour Biology course in addition to Biology 100. Such students should also include Education 201, 301, and 360, a three-hour methods course, and eight semester hours of practice teaching, which must include 150 hours of actual teaching.

#### New York

# Teaching Subjects:

Mathematics, 15 hours; English, foreign language, History, Biological or Physical Science, 18 hours; Romance languages (any two), Classical languages, Social Studies, Sciences, 30 hours.\*

# Education Courses (18 semester hours required):

To teach a modern foreign language a written examination in the language must be satisfactorily passed, in addition to satisfying the above requirements.

#### Other States

Students who expect to teach in states other than Pennsylvania should confer early in their college course with the Education Department as to specific state requirements.

## GRADUATE WORK IN EDUCATION

Two graduate degrees are offered, the Master of Arts and the Master of Science in Education. They are based on the requirements for the corresponding undergraduate degrees, the Bachelor of Arts and the Bachelor of Science in Education, as given at Bucknell.

The candidate, after satisfying the requirements for beginning graduate work, will consult the head of the Department of Education relative to his field of concentration, and will be assigned an adviser, who will assist him throughout the remainder of his course.

A thesis is optional with the student. The student who elects not to write a thesis is required to take a research seminar in Education. The candidate must pass an examination composed of two kinds of questions—(1) general or integrative questions pertaining to the total field of Education, and (2) specific questions which may be chosen in three of the six following fields of concentration: Administration, Educational Psychology and Measurement, Secondary Education, Elementary Education, Guidance, and Supervision. An additional oral examination may be required.

# 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 completion of thirty semester hours, the student's high school transcript and his record as a special student will be evaluated at the request of the student, and he may then be registered as a degree candidate. However, no student 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.

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CHASE HALL