

WILKES COLLEGE *Bulletin*

1969-1970



WILKES-BARRE, PENNSYLVANIA



Wilkes College

Summer Sessions

Wilkes-Barre, Penna. 18703

PLACE
STAMP
HERE

WILKES COLLEGE *Bulletin*

1969-1970

SPRING AND FALL
SEMESTERS — 1969-70

VOL. XVIII

College Calendar

FALL SEMESTER — 1969-70

Freshman Orientation — Monday, September 8 to Saturday, September 13

Registration — Thursday, September 11

Classes Begin — Monday, September 15

Report on Incomplete Grades — Saturday, October 4

Progress Reports — Saturday, October 25

Registration for Seniors, Juniors, and Engineering Students — Monday, November 3 to Friday, November 7

Registration for Sophomores — Monday, November 10 to Friday, November 14

Registration for Freshmen — Monday, November 17 to Friday, November 21

Thanksgiving Recess — Tuesday, November 25, 10:00 P.M. to Monday, December 1, 8:00 A.M.

Christmas Recess — Friday, December 19, 5:00 P.M. to Monday, January 5, 8:00 A.M.

Classes End — Friday, January 9, 5:00 P.M.

Examination Period — Monday, January 12 to Saturday, January 17

College Calendar

SPRING SEMESTER — 1969-70

Registration: All College — Friday, January 23

Classes Begin — Monday, January 26

Report on Incomplete Grades — Saturday, February 14

Progress Reports — Saturday, March 7

Registration for Juniors, Engineering Students — Monday, March 9 to Friday, March 13

Registration for Sophomores — Monday, March 16 to Friday, March 20

Easter Recess — Friday, March 20, 5:00 P.M. to Wednesday, April 1, 8:00 A.M.

Registration for Freshmen — Wednesday, April 1 to Tuesday, April 7

Final Date for Request for Summer Transfer Credit — Saturday, May 2

Classes End — Friday, May 15, 5:00 P.M.

Examination Period — Monday, May 18 to Saturday, May 23

Memorial Day Holiday — Saturday, May 30

Baccalaureate — Sunday, May 31

Commencement — Monday, June 1

College Calendar

SUMMER COLLEGE — 1970

(The College issues a supplementary Summer Bulletin)

FIRST SIX-WEEK SESSION (DAY)

Registration — Tuesday, June 2, through Friday, June 5

Session Begins — Monday, June 8

Session Ends — Friday, July 17 (including Final Exam)

SECOND SIX-WEEK SESSION (DAY)

Registration — Thursday, July 16, Friday, July 17, and Monday, July 20

Session Begins — Tuesday, July 21

Session Ends — Friday, August 28 (including Final Exam)

EIGHT-WEEK SESSION (EVENING)

Registration — Wednesday, June 10, through Friday, June 12

Session Begins — Monday, June 15

Session Ends — Thursday, August 6 (including Final Exam)

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Wilkes College

Wilkes College had its beginnings in 1933 when Bucknell University, responding to a request of community leaders, established its Junior College in Wilkes-Barre. On June 26, 1947, Bucknell University Junior College came to an end and Wilkes College received its charter as a four-year, coeducational, liberal arts college. The College has grown slowly to its current enrollment of approximately 2200 full-time day students and 500 part-time evening school students.

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

AN INDEPENDENT COLLEGE

It was inevitable that the new college should be non-sectarian, for its purpose was to serve all students equally and its supporters wished the College to integrate itself with all constructive efforts in the community. It was believed that these ends could be served best by an independent college that was interdenominational in its influence and non-denominational in its control.

FREEDOM OF INQUIRY

Years have passed since Bucknell gave the control of the Junior College to a local Board of Trustees, guided by the late Gilbert S. McClintock, and events of these years demonstrate the wisdom of their decision. With responsibility came a pressing desire to strengthen the work of the faculty, united in their faith that the intellectual and spiritual resources of the student are vigorous where the creative mind is free.

UNITY AMIDST DIVERSITY

A college that wishes to serve all groups requires both a definite philosophy and a working policy. Wilkes College has been guided by the thought that unity in our community, our nation, and our world requires not only great vision but warm understanding of peoples. In its small circle Wilkes College brings together

students of many faiths, backgrounds, and countries. It encourages them to maintain their convictions and their loyalties. It encourages them to create friendships based upon respect for differences, and to adhere to those ideals that create unity and good will amidst diversity.

While academic work is the basis of the College program, the faculty recognizes that academic training will be of little importance unless students emerge as men and women of strong faith and fine character. In the words of John Stuart Mill, "Before you can make men doctors and lawyers, you must first make them men."

Wilkes College is committed to education as a way of life.

DECADES OF GROWTH

Because of their interest and faith, friends have multiplied their support during the past decades and the campus has expanded steadily so that it now includes most of the properties facing the River Common. Fortunately, a growing endowment has kept pace with the expansion of the campus.

A COOPERATIVE EFFORT

The original concept of community services has been strengthened with the passing of the years and with growing experience. It has been clearly demonstrated that the students, the College, and the community all benefit from cooperative effort. This cooperative relationship, with its emphasis on trained intelligence and extended planning, has resulted in cooperative action.

ACCREDITATION

Wilkes is accredited by the Department of Public Instruction of the State of Pennsylvania and the Middle States Association of Colleges and Secondary Schools. The Accounting curriculum has been accredited by the Certified Public Accounting Examiners of the State of New York. The Chemistry curriculum is approved by the American Chemical Society.

An Educated Man

seeks truth, for without truth there can be no understanding;

possesses vision, for he knows that vision precedes all great attainments;

is aware of the diversity of ideas and beliefs that exist among men;

has faith in the power of ideals to shape the lives of men;

knows that man's progress requires intellectual vigor, moral courage, and physical endurance;

cultivates inner resources and spiritual strength, for they enrich his daily living and sustain him in times of crisis;

has ethical standards by which he lives;

respects the religious convictions of all men;

participates constructively in the social, economic, cultural, and political life of the community;

communicates ideas in a manner that assures understanding, for understanding unites men in their search for truth.

Formulated and adopted by the faculty as a guide to learning.

Policies and Objectives

Admissions

Registration

Tuition, Fees, and Expenses

Financial Assistance

Education at Wilkes

The spirit of the College derives from the ideals of the faculty and the quality of its instruction; from its library, its laboratories and equipment.

The spirit of the College is the integrity of its mission, the intellectual climate that enriches the student as a person.

The College believes that no attention can be too great which intensifies a student's thinking or deepens his interest or develops his techniques and skills.

It believes that a good student commits himself to the disciplines of his work. To learn, to master, and to understand he must accept the responsibilities that he shares with others.

Admissions

True education demands a love of learning and a spirit of sacrifice and service. Education is not a right or privilege but an opportunity that carries with it obligations prescribed by the College and responsibilities shared with the student.

This concept has guided the faculty and trustees in developing the philosophy and procedures of the Admissions Committee, making it possible for students of ability, determination, and soundness of character to study at Wilkes.

Here the student will find an atmosphere of competitive learning in the world of ideas. His desire to undertake study at Wilkes places him among the ready men for whom education is an experience in excellence. He will be charged with the responsibility for fulfilling that trust.

The careful selection of able and committed students is deemed essential to the attainment of high standards and warm personal relationships between students and faculty.

Undergraduate Admission Requirements

SECONDARY SCHOOL RECORD

Candidates applying for admission to Wilkes should be secondary school graduates and should offer at least fifteen units of work representing the equivalent of the usual four-year secondary school preparatory school course. For entrance into certain departments, specific courses in secondary school are necessary. Students interested in studying biology, chemistry, engineering, mathematics, medical technology, and science education should be prepared to enter Math. 111 — Analysis I (Calculus).

APPLICATION FOR ADMISSION

To assist students seeking admission, the College has adopted procedures designed to simplify admissions.

Applications for admission and instructions regarding secondary school records, recommendations, and entrance examinations may be obtained from the Dean of Admissions. The completed applications should be returned to him with a \$10.00 registration fee.

ENTRANCE EXAMINATIONS

All candidates for admission to the freshman class will be required to take entrance examinations. The Admissions Committee considers these test results in relation to the applicant's secondary school transcript and the record of performance during the secondary school years.

ADMISSIONS TESTS

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

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

ACCEPTANCE OF ADMISSION AND DEPOSIT

After receipt of the secondary school record, the secondary school recommendations, and the senior College Board scores, the Admissions Committee meets and acts upon all applications. Notification of action by the Committee is sent immediately. Resident students are required to forward a \$100.00 tuition and dormitory deposit by May 1; local students are required to forward a \$50.00 tuition deposit by May 1 in order to guarantee their entry into the College.

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

ADMISSIONS COMMITTEE

The Admissions Committee is comprised of the Dean of Admissions and appointed faculty members. This committee acts upon special cases referred to it by the Dean of Admissions.

PERSONAL INTERVIEWS

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

Music applicants are required to audition for the music faculty.

TRANSFER STUDENTS

Candidates from other institutions wishing to enter with advanced standing shall follow the regular procedure for admission. The student should request the college or university he is attending to forward to Wilkes a transcript and an official statement of his honorable dismissal. Students offered admission should secure a personal interview with the Dean of Admissions, at which time an evaluation of the transfer credits will be made and a tentative program scheduled. This program will be subject to final review by the faculty adviser at the time of registration. Acceptable credits will be placed on the Wilkes record of the student following a final evaluation.

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

ADVANCED COURSE STANDING

Superior students who have undertaken college-level courses in secondary school may request college credit for such work and permission to enter advanced courses. To qualify for advanced placement, the secondary school student must take the Advanced Placement tests of the College Entrance Examination Board, in addition to the regular Scholastic Aptitude tests required for admission. Action by the College will be determined by scores obtained on the Advanced Placement Examination, the secondary school record submitted by the student, and the recommendations of the secondary school faculty. After he is admitted the applicant will request the College Entrance Examination Board to send the results of the Advanced Placement Tests to the Dean of Admissions. The request will then be considered by the Admissions Committee and the appropriate department chairman. The applicant will be advised of their action prior to registration.

Evening Division

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

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

When the student completes thirty hours, his record is reviewed by the Admissions Committee. At this time the Committee recommends that a student continue to work for a degree, or be placed on probation, or withdraw from the Evening Division.

Students who do not desire a degree may be admitted to classes which they are qualified to take by reason of their maturity, previous education, and work experience. Secondary school training is desirable but not necessary, provided the student is qualified to follow special courses of instruction in which he wishes to register.

Summer School

The faculty offers selected courses during two six-week day sessions and one eight-week evening session. The course offerings are listed each year in the Summer College Bulletin available on request from the Admissions Office.

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

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

Inquiries concerning summer graduate courses should be directed to the Chairman of Graduate Studies.

Graduate Division

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

Registration

Every student is expected to register on the dates specified in the College calendar. A student presenting himself for registration after the time designated for registration will pay a late registration fee of \$10.00.

Incoming freshman students will be sent a program of courses they will be enrolled in for the first semester. This program should be approved by the student and returned to the Admissions Office within two weeks. Any questions or changes relating to this program should be directed to the Dean of Admissions immediately.

Expenses

TUITION

The flat tuition fee of \$700.00 per semester will be charged to all students taking a course load of fourteen to eighteen hours. A student who registers for fewer than fourteen hours of work will be charged at a rate of \$50.00 per credit hour. A student who elects a heavier schedule than 18 hours will be charged \$50.00 for each additional credit hour.

EVENING SCHOOL

Students registered in the Evening School will be charged \$50.00 per semester hour. Further information regarding the content of the courses, requirements for undergraduate and graduate degrees, and requirements for teacher certification may be secured from the Office of Admissions.

SUMMER SCHOOL

Students registering for courses in the six and eight-week Summer School sessions will be charged \$50.00 per semester hour of study payable before registration.

FEES

For those courses that require individual faculty supervision or the addition of supplies and equipment the College finds it necessary to charge nominal fees. These fees are listed in the Bulletin with the course description. When these fees total more than \$50.00 a flat fee of \$50.00 per semester will be charged.

Medical technology students will be charged in both the seventh and eighth semesters a \$50.00 College Administrative Fee for supervision of the hospital course work required in this program.

The cost of individual instruction in applied music is \$50.00 for full-time students for a series of fourteen half-hour lessons. The College accepts a limited number of special students for individual instruction in applied music for a series of fourteen half-hour lessons at a cost of \$70.00 per semester.

A student activities fee of \$10.00 provides for a number of special programs, including plays, recitals, and lectures, offered at the Center for the Performing Arts.

A graduation fee of \$25.00 is charged to all graduating seniors.

TRANSCRIPTS

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

When requests for more than one transcript are given *on the same order* the charge shall be:

- a. One dollar for the first copy.
- b. Seventy-five cents for the second copy.
- c. Fifty cents for the third copy.
- d. Twenty-five cents for each copy thereafter.

CHEMISTRY BREAKAGE

Students taking chemistry laboratory courses are required to deposit \$10.00 to cover possible charges for broken, lost, or damaged equipment. The unexpended balance of this fee is refundable.

INSURANCE COVERAGE

The College makes available both accident and accident and health insurance to students. Each student will be required to purchase an accident policy at a cost of \$10.00. A health insurance policy is available to commuting students but is optional with them. Health insurance required of all resident students is prepaid as part of the dormitory charge. Both policies provide protection for twelve

months and premiums are payable in full with the first semester charges. There are four fully accredited hospitals in the vicinity of the campus, and a college physician and college infirmary are available for emergency treatment.

PAYMENTS

Payment of all charges for tuition, fees, room and board is to be made at the Finance Office, Parrish Hall, before registration. Several plans have been developed to assist students who do not have the cash in hand, and it is suggested these plans be considered when special assistance is needed.

1. Wilkes College participates in the National Defense Student Loan Program and students needing financial assistance may apply to the College for such a loan.
2. If a student does not meet the requirements for a National Defense Student Loan, but wishes to space his payments over the school year, we recommend that he apply for an educational loan at one of the local banks. Information concerning this method of financing an education may be obtained at the College.
3. Grants-in-aid and scholarships will be credited toward the student's bill at the beginning of each term.

REFUNDS

Students in good standing who withdraw from the College will receive a refund of tuition under the following conditions:

During the first six weeks of a term one-half of the tuition will be refunded upon request if the withdrawal is made for adequate and satisfactory reasons. After the first six weeks no refunds are allowed and the student is obligated for the full costs for the term.

Refund of dormitory charges will not be allowed except under conditions beyond the control of the student.

No student who is suspended or expelled shall be entitled to any refunds.

Living Quarters and Board

DORMITORIES

Residence for boarding students is provided in a new dormitory for men and in a number of large mansions that have been given to, or purchased by, the College in recent years. The women's dormitories accommodate from eighteen to thirty students and a resident proctor. Every effort is made to maintain a homelike atmosphere. Students and their families are invited to inspect these homes. Each room includes a bureau, desk, chair, and a bed. Students will supply their own blankets; bed linens and towels are furnished through a local laundry on contract by the College.

The admission of resident students is limited to the capacity of the dormitories, and all students not residing with parents or guardians are required to live in the dormitories.

Any exception to this rule must be requested in writing to the Dean of Student Affairs, and must be approved by the Administrative Council after recommendation by the Council of Deans.

A deposit of \$50.00 is required to reserve a room. The charge for room and board is \$575.00 per student per semester. This charge includes the cost of health and accident insurance and linen rental and laundry service for bed linen and towels only. Personal laundry plans are offered, and for students who wish to do their own laundry, facilities are available on campus.

Resident students are required to take their meals at the College Dining Hall. Exceptions will not be made without formal recommendation from the college physician and the approval of the Dean's Council.

Each resident student will be required to maintain a minimum balance of \$50.00 on deposit with the College so long as that student is enrolled. Charges for damage to College dormitory property will be automatically deducted from the student's deposit. When the student graduates or terminates his matriculation at the College, he will be given the refundable portion of the deposit.

Information regarding dormitories can be obtained from the Office of Admissions.

Financial Assistance

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

In accepting any form of aid from the College the student accepts an obligation — which is also the obligation of every other conscientious student — to:

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

In planning to meet any difference between his own resources and the cost of education the student should consider a combination of *work, loans, and scholarships*.

Scholarships

Scholarships and grants are available to students with good records of achievement and performance in high school or college who cannot fully finance the cost of their college education and who *can demonstrate seriousness of purpose and effort*.

A few honor scholarships are awarded without regard to need to students of outstanding achievement in appreciation of their contribution to the intellectual life of the group. The amount of each grant will be determined by the Scholarship Committee.

SCHOLARSHIP REQUIREMENTS

1. Students must be admitted to the College before their applications for scholarships will be considered.
2. All applicants for scholarships must obtain an interview with the Dean.

3. No scholarship will be granted until the student has made every reasonable effort to finance as large a portion as possible of the costs of this education.

4. Every applicant for scholarship aid shall submit confidential information pertaining to his financial needs and his record of achievement.

5. No student may simultaneously hold more than one scholarship granted by the College.

6. Scholarships will be forfeited if the student, at any time, carries fewer hours than are normal for his course of study.

7. No scholarship is awarded for more than one year, but scholarships will be renewed upon request, provided this request is supported by a good academic record, by evidence of continued need, and by constructive participation in at least one all-college activity of his own choice.

8. The amount of the grant is confidential, and any breach of this confidence shall terminate the scholarship.

INSTRUCTIONS TO THE APPLICANT

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

2. Students requiring aid shall indicate their need on the application for admission to the College.

Wilkes College participates in the College Scholarship Service (CSS) of the College Entrance Examination Board. Participants in CSS subscribe to the principle that the amount of financial aid granted a student should be based upon financial need. The CSS assists colleges and universities and other agencies in determining the student's need for financial assistance. Entering students seeking financial assistance are required to submit a copy of the Parents' Confidential Statement (PCS) form to the College Scholarship Service, designating Wilkes College as one of the recipients, by February 1. The PCS form may be obtained from a secondary school or the College Scholarship Service, P. O. Box 176, Princeton, New Jersey 18540; or P. O. Box 1025, Berkeley, California 97404.

Loans

The College participates in the National Defense Student Loan Program. Complete information concerning this program and applications for financial assistance under this program may be obtained at the College.

SPECIAL LOAN FUND

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

STUDENT LOAN FUND

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

Employment

College makes strict demands on a student's time. The student who finds it necessary to seek full-time employment during a semester is advised to work a year and then apply for admission.

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

PART-TIME EMPLOYMENT

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

CAMPUS EMPLOYMENT

The College also offers part-time employment at standard rates in the dining room, offices, laboratories, library, or on the maintenance staff. The holder of these jobs will meet all obligations of his assignments or forfeit all help from the College.

Founders of Scholarships

Each year some 1000 friends contribute to the scholarship fund of the College on an annual basis. Other friends have created scholarships which bear the names of the donors or of persons whom they have memorialized by means of a scholarship.

Trust Funds and Endowed Scholarships

ARNAUD CARTWRIGHT MARTS SCHOLARSHIP was created by the associates of Dr. Arnaud C. Marts, in the firm of Marts & Lundy, to honor the Chairman of their Board and former President of their Company.

It is appropriate that this scholarship should bear his name for no person has done more to bring new opportunities to the young people of Wyoming Valley. As President of Bucknell University, he was instrumental in the establishment of Bucknell University Junior College, which became Wilkes College in 1947. After Wilkes College became an independent college, he joined its Board of Trustees and was elected Vice-Chairman of the Board. Because of his vision and faith in the young people of this region, he has supported and guided every forward looking and constructive effort of the College.

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

JOHN WELLES HOLLENBACK SCHOLARSHIP. Miss Anna Hollenback has created a scholarship in memory of her father, John Welles Hollenback, and the annual interest of the principal is used for scholarship purposes.

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

CONYNGHAM POST NO. 97, GRAND ARMY OF THE REPUBLIC, DEPARTMENT OF PENNSYLVANIA, SCHOLARSHIP. In 1968, Trustees of Post 97 established a trust at the College, the annual income of which is used to provide partial scholarships for residents of Luzerne County, with preference given to descendants of veterans of the Civil War.

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

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

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

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

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

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

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

Annual Name Scholarships

THE WILLIAM H. CONYNGHAM MEMORIAL SCHOLARSHIP is awarded annually by Mrs. Conyngham in memory of her late husband, a friend and neighbor of the College and for years an outstanding leader in business and community life.

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

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

DONALD T. JONES MEMORIAL SCHOLARSHIP. David Ertley, Inc. has given a scholarship in memory of Donald T. Jones, a graduate of Wilkes College and a member of the Music Department up to the time of his death.

MR. HARLAND W. HOISINGTON gives an annual scholarship to assist students of high scholastic ability.

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

ARTHUR J. PODESTA SCHOLARSHIP is given anonymously by friends, in honor of Arthur J. Podesta, 1969 Community Scholarship Campaign Chairman, for that student demonstrating strong potential academic ability who will benefit from scholarship aid.

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

ANDREW J. SORDONI FOUNDATION SCHOLARSHIP. This scholarship will be used to assist students of unusual promise and proved ability.

LOUISE M. THOMAS MEMORIAL AWARD is presented annually to a junior or senior girl who is majoring in education and plans to enter the teaching profession.

College and Community Organizations

WILLITS COLEMAN MEMORIAL SCHOLARSHIP has been established in memory of Willits Coleman, a member of the Wilkes-Barre Rotary Club, a service organization long active in efforts to raise educational standards in the schools. The scholarship will be awarded to a senior who has demonstrated ability in the classroom and in student activities.

ALPHA RHO CHAPTER OF DELTA KAPPA GAMMA annually awards a partial scholarship to a deserving woman student in need of financial assistance.

THE WYOMING VALLEY CHAPTER OF THE AMERICAN BUSINESS WOMEN'S ASSOCIATION offers to an outstanding woman student of the College a scholarship each year. The education committee of the club in cooperation with the administration chooses a young woman who shows promise of making an outstanding contribution in business or professional life following graduation.

THE GILBERT D. DAVIS MEMORIAL SCHOLARSHIP is awarded by the Class of 1961 to a Wilkes student who demonstrates outstanding leadership abilities and who meets qualifications of academic competence and need.

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

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

THE NEIL C. DADURKA - DONALD F. STRAUB MEMORIAL SCHOLARSHIP is awarded annually to a Wilkes student of ability and need who makes a significant contribution to the life of the College. This scholarship is made possible by the generosity of the Class of 1957.

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

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

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

WEST SIDE EVENING WOMAN'S CLUB SCHOLARSHIP shall be awarded annually to a Wyoming Valley girl who matriculates at Wilkes College with the intention of working toward a degree.

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

Commercial and Industrial Concerns

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

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

BALESTER OPTICAL COMPANY, INC. annually makes scholarship funds available to assist students of proved academic ability in need of financial assistance in order to complete their education.

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

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

HEAVENLY SHOES INC. An annual scholarship is granted by Irving Schor, company president, who manifests concerned dedication to aiding worthy students of Wyoming Valley.

THE GIBBONS SCHOLARSHIP is awarded each year to a deserving male student as selected by the Scholarship Committee.

MEDICO INDUSTRIES awards a one-half tuition scholarship to a deserving student of high scholastic standing.

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

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

LAVENTHOL, KREKSTEIN, HORWATH & HORWATH SCHOLARSHIP. This award is presented annually to a senior accounting major by the firm of Laventhol, Krekstein, Horwath & Horwath in recognition of high academic endeavor.

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

PENNSYLVANIA POWER AND LIGHT COMPANY awards four \$300 scholarships annually to residents of PP&L's 29-county service area. These awards are made to students with outstanding academic promise and financial need. Applications for these awards may be made through the secondary school principal or guidance counselor at the time of application for admission. The Scholarship Committee of the College selects the final recipients from among all applications received.

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

STEGMAIER SCHOLARSHIPS. Two one-half tuition scholarships are awarded to senior male students who have made outstanding contributions to the College community.

OLIVER J. R. TROUP MEMORIAL SCHOLARSHIP is provided by Atlas Chain & Precision Products Co. Inc., the firm which Mr. Troup founded. This scholarship is presented to a freshman who intends to prepare for a business career. The award is granted annually to a young man whose potential is attested by the college board scores and the secondary school record. It is renewable at the end of each of the first three years.

Employee's Family Scholarships

ILGWU SCHOLARSHIPS. The Wyoming Valley District Council of the International Ladies Garment Workers Union has created partial scholarships for the sons or daughters of its members. To be eligible for candidacy, a student must graduate in the upper half of his secondary school class, test above 550 on the Scholastic Aptitude Test, and demonstrate financial need. Final selection of scholarship winners will be made by officials of the College.

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

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

THE METROPOLITAN WIRE GOODS CORPORATION has created scholarships of \$500, \$300 or \$200 at Wilkes College for the sons or daughters of its employees. To qualify for candidacy, a student must graduate in the upper half of his secondary school class, must test above 550 on the College Board Examinations, and must demonstrate financial need.

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

Special Endowments

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

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

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

The Facilities of the College

Buildings and Plant

Experience at Wilkes

Education is the process of connecting and relating, of testing and retesting, of discovery and rediscovery.

The faculty can teach the student facts, but his contribution to a free society depends upon the continual expansion of his knowledge and upon its relevance to human experience.

The student can strive for technical and professional competence, but the inner resources of the mind and spirit must nourish and enrich his achievement.

The Facilities of the College

Buildings and Plant

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

EUGENE SHEDDEN FARLEY LIBRARY

The new library, completed in the summer of 1968, has been named by the Trustees in honor of the president of Wilkes College.

Since 1947 Kirby Hall, the former residence of Mr. and Mrs. Fred Morgan Kirby, has been used as the College library. The building, first named the Kirby Home for Education, was presented to the College in 1941 as a gift of Allan Kirby, son of Wilkes-Barre's most generous benefactors. It is presently being used by the Modern Foreign Language Department and contains the language laboratory, initiated by a gift of the graduating class of 1962.

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

The library contains more than 85,000 volumes and 840 current periodicals and journals, with space provided for a total of 300,000 volumes and study area for 600 students. Shelved on open stacks, books are easily accessible and may be borrowed for periods of two weeks. Reserve books for particular courses circulate for the time

period specified by the instructor. Students may borrow books from the ten nearby libraries (public and college) through the inter-library loan system.

An introduction to the uses of the library is given to every freshman during the freshman orientation week.

The schedule of library hours is announced at the beginning of each academic session.

STARK HALL OF SCIENCE

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

In addition to the usual instructional facilities, Stark Hall houses the Science Research Center, where faculty, graduate students, and selected undergraduate students conduct various research programs, many with industrial or governmental financial support.

Research in the sciences has included such varied work as research in allergy, immunochemistry, developmental plant morphology, protozoology, limnology, theoretical acoustics, atmospheric physics, experimental solid state physics, thermochemistry, surface chemistry, fuel cell research, and organic synthesis.

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

CENTER FOR THE PERFORMING ARTS

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

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

Cue and Curtain, the student drama group, has given one-act plays by O'Neill, Sartre, Albee, Anouilh, Tennessee Williams, and others. One-act plays are student directed. Over the years the College has presented Elizabethan plays of Shakespeare, Webster, Dekker, Middleton, as well as plays of Moliere, Shaw, Ibsen, Pirandello, Wilder, Osborne, Noel Coward, Philip Barry.

The students, in cooperation with the Wilkes-Barre Kiwanis Club, have presented the following musical comedies, the proceeds from which have assisted in the establishment of the Wilkes-Barre Kiwanis Charitable Foundation: *Bloomer Girl*, *Paint Your Wagon*, *Annie Get Your Gun*, *The Music Man*, *The Sound of Music*, *Camelot*, *How To Succeed in Business Without Really Trying*.

MUSIC CENTER

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

The band, choruses, and woodwind ensemble present concerts locally and on tour. To encourage musicianship the department has been host to the Pennsylvania Intercollegiate Choral Festival. Nationally known music educators, clinicians, and performers have participated in workshop and classroom activities. During the winter and spring semesters *Town and Gown* concert series presents students and music faculty in instrumental and vocal programs before audiences from both the College and the community.

CONYNGHAM ANNEX (ART GALLERY)

The art club holds its annual Art Fair in the Little Art Gallery in Conyngham Annex, where the work of students and of local and professional artists is shown. The public is invited to the displays and exhibits. Opportunities are offered to the students to enter their work in local and regional competition.

GYMNASIUM AND OUTDOOR ATHLETIC PLANT

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

GUIDANCE CENTER

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

PLACEMENT OFFICE

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

Complete information about job opportunities and graduate schools is available. Each year the Office is visited by over one-hundred representatives of industries and one hundred school systems from all parts of the United States to interview students for business and teaching positions.

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

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

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

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

The Placement Office is located in the Guidance Center, on South River Street, next to McClintock Hall.

ALUMNI OFFICE

The Alumni Office keeps records of all graduates and alumni of the College. It edits the *Alumnus* and acts as liaison for the College with alumni and interprets to the alumni chapters the changes and needs of the institution.

Prospective students interested in finding out more about the College may write for information to the Alumni Office. They are always welcome at Alumni Chapter meetings.

Current active Chapters are located in Pennsylvania in Wilkes-Barre, Allentown, Bethlehem, Easton, Harrisburg, Scranton, Philadelphia; in New York in Binghamton, New York City, Long Island; in New Jersey in Newark, Somerville, Morristown, Trenton; Wilmington, Delaware; Baltimore, Maryland; Washington, D.C.

THE BOOKSTORE

Books, stationery, and supplies may be purchased at the College Bookstore, Harding House, on South Franklin Street. The bookstore is operated on a cash basis. The cost of books and supplies will vary with the course of study, but will average approximately \$50.00 per semester.

The College also maintains a United States Post Office sub-station in Harding House.

THE COMMONS

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

SNACK BAR

Cafeteria service is also provided at the College's newly furnished Snack Bar, behind McClintock Hall.

CLASSROOMS AND INSTRUCTION

The Institute of Regional Affairs occupies the fifth floor of Parrish Hall. Classes and faculty offices in Commerce and Finance, Political Science, Psychology, and Sociology are in Parrish Hall.

Conyngham Hall, located on South River Street, was one of the earliest properties acquired by the College. The Conyngham home was a gift in 1937 of Mrs. Bertha Robinson Conyngham, in memory of her husband, John N. Conyngham. The building was destroyed by fire on December 28, 1968.

Bedford Hall, a gift of Mr. and Mrs. Paul Bedford, is the home of the English Department.

Pickering Hall, next to the library, is the home of the Art Department. Classes in fine arts and in art education meet also in Conyngham Annex.

OFFICES OF ADMINISTRATION

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

Weckesser Hall, 170 South Franklin Street, is the gift of Mr. and Mrs. Frederick J. Weckesser. The President and the Dean of Academic Affairs have their offices in Weckesser Hall. Also in Weckesser Hall are the Dean of Men, the Dean of Women, the Director of Athletics, the Registrar, the Director of Student Activities, the Alumni Office, the Public Relations Office, and the office of College Development.

Parrish Hall, formerly the Glen Alden Building of the Lehigh and Wilkes-Barre Coal Company, was acquired in 1958. Presently, the Finance Office occupies the first floor.

DORMITORIES

Over 25 dormitories are named after prominent local families and for patriots of the American Revolutionary War, whose history forms part of the rich heritage of the Wyoming Valley region.

Student Life

Counseling

Student Activities

Social Activities

Athletics

Student Responsibility

Studying at Wilkes

In college the teacher works with the student, challenging him to extend the limits of his mind. He encourages him to think courageously and truthfully and to create with all his resources so that he may act with independent judgment.

In a college community freedom of inquiry is essential.

In the world community the right of the individual to differ safeguards the freedom of all men.

As student and teacher engage in the experience of creative thinking, the heritage of learning becomes the responsibility of everyone.

Counseling

The guiding principle of all Wilkes counseling is to encourage the student to discover his own abilities and potentialities and to assist him in making sound, independent decisions; most of all he must learn to assume responsibility for all he does.

FRESHMAN ORIENTATION PROGRAM

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

During the first week, new students take aptitude, interest, foreign language, and English-placement tests. The week also gives the new students an opportunity to become acquainted with one another and to learn about the College, the curriculum, and the student activities.

Throughout their first term small groups of freshmen meet for one hour a week to discuss informally their personal, academic, and vocational objectives. Representatives of the faculty discuss with them:

1. Methods of intelligent self-directed study.
2. Standards of value in personal conduct and in relationships with others.
3. Values of the College extracurricular program.
4. The value of college experiences in developing a philosophy of life.

By placing responsibility upon the student for planning and conducting these discussions, the College encourages clear thinking, initiative, poise, and breadth of view.

STUDENT ADVISEMENT

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

COLLEGE CONSULTATION SERVICE

The College Consultation Service offers individual assistance to students with difficulties of a personal or environmental nature. Students may apply directly to the Consultation Service for appointments or may arrange for consultation through the Deans' Office. Interviews with the specially trained staff are conducted on an entirely confidential basis.

Student Activities

The student activities of the College broaden a student's interests begun in the classroom. The faculty encourages a program of extracurricular activities that contribute to the educational development of the student who chooses to participate.

Student activities are designed to appeal to a wide variety of tastes and talents; as such they enjoy the support of the College community. The student activities include Athletics, Dramatics, the College Band, Debating, Choral Club, Collegians Male Chorus, Women's Chorus, Madrigal Singers, the College newspaper, the yearbook, and the literary magazine.

There are four class organizations. In addition, special departmental clubs stimulate and satisfy individual interest in academic, professional, and artistic fields. These clubs are developed for students in cooperation with the faculty. All women students may become members of Theta Delta Rho, headed by its own executive committee, which plans and arranges social activities.

The College requires that all campus organizations be open to all students; consequently, groups that are exclusive do not exist. All student groups work in cooperation with faculty advisers and the Deans.

STUDENT GOVERNMENT

Government of student affairs rests in a Council composed of annually elected members representing the classes and other student groups. The Council serves as a coordinating agency. It formulates the student activities budget; it submits this budget to the Administrative Council for approval and is responsible for the supervision of expenditures within the budget. It plans and supervises the social calendar of the College; it is responsible for the Homecoming programs; it recommends to the Council of Deans social regulations pertaining to student life. It consults with and advises the Deans and the Administrative Council. It recommends to the Administration, nominees for appointment to selected faculty committees.

INTER-DORMITORY COUNCIL

The Inter-Dormitory Council, made up of elected representatives from the men's and women's residence halls, plans and coordinates dormitory social functions and develops and administers dormitory policy in conjunction with the Council of Deans.

PUBLICATIONS

The students publish the *Beacon*, a weekly newspaper; the *Manuscript*, a literary magazine, issued in the Spring; and the *Amnicola*, the College annual. There are opportunities for students on the editorial, art, and business staffs.

Graduated amounts, in the form of tuition stipends, are available to students in the upper classes who hold editorial and managerial positions on the *Beacon*, the *Manuscript*, and the *Amnicola*. Students eligible for these grants should make written application to the faculty adviser of the publication before April 1 for review by the publications committee and the Administrative Council.

Social Activities

The College believes in helping students to help themselves. Groups are encouraged to initiate programs that will serve their interest and benefit others. It has been found that students gain most from those activities, social and cultural, which release the best talents of the individual.

Special projects include the following: TDR's Golden Ages Christmas party, at which residents of Convalescent Homes are entertained; Student Government's party for children of St. Stanislaus Orphanage; Wilkes J.C.'s party for YMCA children; Student Work Day, in support of an orphan in a foreign land.

In addition there are various social affairs to raise money for the United Fund, to collect toys for the Salvation Army, and to donate books for students in foreign countries.

A full and varied program of social and recreational activities supplements the extracurricular program. At all these functions members of the faculty and their wives are invited guests and chaperones.

COME-AND-MEET-US-PARTY

Student Government makes plans for student leaders to welcome the freshmen one week before the semester starts. An informal party and dance for the entire student body culminate the week's introduction to college life.

PARENTS' DAY

After they have adjusted themselves to the academic life of the College, students invite their families to a weekend of social, cultural, and athletic events. Preparations for the annual Parents' Day program are entirely the responsibility of a Student Planning Committee. The agenda includes intercollegiate soccer and football games, luncheon with the faculty, a play, and a film.

HOMECOMING

To welcome returning alumni, students construct displays on campus and decorate dormitory and classroom buildings. For the outstanding displays an alumni committee presents awards during halftime ceremonies at the football game. A Homecoming Queen and her escorts are feted at a dinner dance.

FORMAL DANCES

Student organizations and clubs sponsor four formal affairs, open to the entire student body. The Homecoming Dance, for alumni and undergraduates; the Lettermen's Christmas Formal; Theta Delta Rho's Valentine Formal; and during Spring Weekend the Cinderella Ball have become traditions on campus.

TDR AND LETTERMEN TEAS

Throughout the year TDR and the Lettermen sponsor afternoon teas and student receptions. The women of Theta Delta Rho entertain those high school seniors who plan to enter the College the following year.

IDC CHRISTMAS PARTY

The Inter-Dormitory Council sponsors an annual Christmas party preceding the winter vacation. The student body, faculty, and administration are invited to a buffet and dance.

HAMPTON EXCHANGE PROGRAM

IDC also sponsors a social exchange program between students from Wilkes and Hampton Institute, Hampton Roads, Virginia. Several Wilkes students and an equal number of Hampton students visit each other's campus. Faculty members and Deans accompany both groups.

WILKES OPEN WRESTLING TOURNAMENT

Between Christmas and New Year's the College sponsors the Wilkes Open Wrestling Championships. Known as the "Rose Bowl of Wrestling," this annual tournament attracts athletes from over sixty colleges, athletic clubs, and YMCA's throughout the

United States. Wilkes wrestlers join them in competing for individual and team awards. Tourneys and clinics are held over a three-day period in the Wilkes gymnasium. The Tournament, the largest in the country, has the record for the most number of entries.

WINTER CARNIVAL

Student Government sponsors a Winter Carnival, held at one of the nearby resorts in the Poconos. A day of skiing, tobogganing, and ice skating climaxes the close of the examination period.

SPRING WEEKEND

Student Government also plans Spring Weekend. Clubs and organizations set up gala outdoor booths, and the campus takes on a Mardi Gras atmosphere. At the Ball at midnight on Saturday a senior, chosen by the student body by secret ballot, is crowned Cinderella Queen.

THE MANUSCRIPT FILMS

During each semester the *Manuscript* Society brings to the campus distinguished motion pictures, produced by American and foreign film companies.

CLUB ACTIVITIES

In addition to the regular social calendar, campus organizations plan their own special activities.

THE PRESIDENT'S PICNIC

On the Saturday before Commencement the graduating class is invited by the President to a picnic and outing in the country.

Athletics

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

The College maintains intercollegiate schedules in eight varsity sports: football, baseball, basketball, soccer, golf, tennis, swimming, and wrestling. Men who take part in intercollegiate sports satisfy the requirements for physical education for the duration of that sport.

A program of intramural sports and physical education stresses physical standards and cooperative team spirit and recreation. Every man has a chance to participate in basketball, touch football, volleyball, softball, and bowling. The athletic program for women includes dancing, folk and modern, bowling, basketball, softball, and swimming.

ATHLETIC POLICY

Intercollegiate athletics are introduced for the benefit of the student body and in consequence athletes receive the same consideration in admissions and in the awarding of scholarships that is given to other students. Wilkes enters into intercollegiate competition with other colleges of the Middle Atlantic Conference adhering to similar policies of admission and maintaining comparable scholastic standards.

The College is a member of the Middle Atlantic Collegiate Athletic Conference, the National Collegiate Athletic Association, and the Eastern Collegiate Athletic Conference.

Student Responsibility

The students in a great measure determine the influences of the College. The faculty counts upon their cooperation in establishing the highest possible standards of intellect and morals. The College may request students to withdraw when their influence and behavior are deemed detrimental to the best interests of the student body and the College.

It is recognized that courtesy and consideration are the basis of good relations between individuals. Informal and friendly associations between students and faculty are a tradition on campus.

Although these relations are flexible, certain precedents have been established in the best interests of the individual and the College. A few are mentioned here:

1. The possession and use of liquor on campus are forbidden, and none will be served at college affairs.
2. Smoking is not permitted in classrooms or hallways, or in the library. Facilities are available in various buildings for students who may wish to smoke during their free periods.
3. Although participation in at least one student activity is encouraged, each student is responsible for planning and utilizing his time effectively.
4. The faculty cooperates with students who miss classes because of illness, or as representatives of the College, or for special religious observances; in cases of excessive absence the student shall present his instructors with a note from the Deans. In all instances the student is expected to make up the work that is missed.

Academic Requirements

Graduation Requirements

Learning at Wilkes

Education leads men to seek answers to problems of significance and to inquire into ideas and beliefs of eternal relevance. There is no better expression of man's purpose than his sense of belonging to a universe ruled by truth.

Creative thinkers set the standards and the high aims of education. One may not reach these standards in his lifetime; that they are recognized and sought after is the measure of one's intellectual concerns.

The faculty encourages the student to cultivate learning that he may grow in wisdom. In this way the mind in its journeyings finds constant surprise and delight at rediscovering itself.

Curricula

Graduate Programs

WILKES COLLEGE DEGREE PROGRAMS

To fulfill its objective of service to the community and the nation, Wilkes in 1961 introduced two new curricula leading to the degrees of Master of Science in Chemistry and in Physics. These curricula are designed to make practicable either full-time graduate study toward the degrees or part-time study by engineers and scientists with appropriate undergraduate training employed in the Wilkes-Barre area. A program leading to a Master of Science degree in Biology was introduced in September, 1967. In September, 1969 two programs were introduced: one leading to a Master's Degree in Business Administration, and a second leading to a Master of Science degree in Education providing for concentration in the academic disciplines of English, history, mathematics, biology, physics, chemistry, and elementary education.

Full details of these programs are published in the bulletin of the Graduate Division.

COOPERATIVE GRADUATE PROGRAMS

Wilkes is cooperating with both Lehigh and Temple Universities to make graduate programs available to regional teachers and businessmen.

The Temple University program leads to the degree of Master of Science in General Education and is accepted by the Commonwealth for permanent certification of classroom teachers. Candidates may register at the College. Under this cooperative program, all credits are granted by Temple University.

Wilkes and Lehigh University are cooperating in offering graduate courses in education leading to a Master's Degree in Education, and graduate courses in Business Administration leading to a Master's Degree in Business Administration.

Details of these graduate programs may be obtained by writing to the Director of Graduate Studies.

Undergraduate Programs

Wilkes is an independent, liberal arts college that offers the degree of Bachelor of Arts in the humanities, the social sciences, and the natural sciences.

All course work in education required for careers in teaching is available in combination with the degree programs mentioned.

The College confers the degree of Bachelor of Science in biology, chemistry, engineering, physics, medical technology, commerce and finance, and certain areas of education. The College also offers in selected engineering fields a two-year program leading to transfer.

A detailed description of these programs is provided in the section of the bulletin titled "Degree Programs."

PRE-PROFESSIONAL DEGREE PROGRAM

Four years of undergraduate study are ordinarily required to qualify for the Bachelor's degree. Wilkes College makes an exception to this requirement for medical and dental students.

These students may, with the approval of the graduation committee, satisfy the requirements for the Bachelor's degree by completing three years of undergraduate study at Wilkes and by requesting credit toward the degree for their first two years of work in graduate school.

Such students must petition the graduation committee for permission to graduate, submit official transcripts from the professional school, and pay the usual graduation fees. In all cases the final approval for the granting of the degree rests with the Academic Standing Committee of Wilkes College.

Academic Requirements

GRADES

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

Five numerical grades are given for academic work.

Grade	Interpretation
4	Academic achievement of outstanding quality.
3	Academic achievement of high quality.
2	Academic achievement of acceptable quality in meeting requirements for graduation.
1	Academic achievement of quality below the average required for graduation.
0	Academic achievement below the minimum required for course credit.

Inc. means that a student receives an incomplete grade. Incompletes will be granted to students who because of illness or reasons beyond their control have been unable to satisfy specific course assignments. All unfinished work must be completed before the fourth week of the following term. If an incomplete is not removed within this period, the grade will be changed to a zero.

COURSE CREDITS

Each course at the College is assigned a specific number of credits. For example, English 101 is a 3 credit course and English 151 is a 4 credit course. Usually, credits assigned to the course are determined by the number of hours that the class meets per week.

POINT AVERAGES

The student is given a number grade for every course in which he is enrolled. To calculate the number of points earned in a course, multiply the grade in each course by the number of credit hours for the course. To compute the point average, total these points for all courses and divide by the total number of credit hours.

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

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

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

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

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

CLASS STANDING

Grades and averages at the end of each semester of the four academic years indicate a student's progress. The faculty expects students to achieve the following minimum averages:

	General Average	Major Average
Freshman Year	1.4	1.6
Sophomore Year	1.7	1.9
Junior Year	1.85	2.0

If these minimum averages are not attained during each semester of the year indicated, the student's record is reviewed by the Academic Standing Committee to determine whether or not he should be placed on probation or dismissed from the College.

PROBATION AND DISMISSAL

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

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

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

ATTENDANCE

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

After five consecutive absences from a class, a student may be readmitted to the class only by action of the appropriate Dean and the Department Chairman concerned.

STUDENT LOAD

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

WITHDRAWALS

Students may change their courses during the first week of a semester, provided they secure the approval of their faculty adviser and the Dean. A student who withdraws from a course after the first week but who continues other courses will receive a zero unless the Dean, faculty adviser, and instructor agree that the student be permitted to drop the course without prejudice.

No student who has been advised to withdraw from the College's day school program for academic reasons will be permitted to register in the Evening Division without the written consent of the Dean and then will be allowed to register only as a non-matriculating student.

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

CHANGE OF PROGRAM

Students who wish to transfer from one department to another shall obtain the approval of the Department Chairmen and the Dean. The student shall satisfy the curriculum requirements of the Bulletin in force at the time of transfer.

TRANSFER OF SUMMER CREDITS

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

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

DEAN'S LIST

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

HONORS

The granting of Honors at Commencement is based upon the academic record made by students carrying a normal load for their curriculum during their last two years at the College. Requirements for Honors are as follows: for *cum laude*, a cumulative average of 3.35; *magna cum laude*, 3.60; *summa cum laude*, 3.80.

Graduation Requirements

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

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

1. He must complete all subjects required for the degree as stated in the Bulletin in force at the time of his admission to the program. Transfer students must complete the last 30 credits in residence at the College.
2. He must earn a grade of 1 or better in each required subject.
3. He must obtain a cumulative average of 1.85 for all courses.
4. He must obtain a cumulative average of 2.0 for all subjects within his major.
5. He must satisfy all requirements pertaining to the orientation and physical education programs.
6. He must demonstrate competence in written and spoken English.

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

Awards

At Commencement a number of awards are presented to outstanding students in selected fields. The Deans also give two special awards for highest academic achievement.

Senior Awards

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

THE AWARD IN THE HUMANITIES AND SOCIAL SCIENCES is given each year by Miss Annette Evans to the man or woman in the graduating class who has demonstrated outstanding scholarship in one or both of these areas, and has manifested intellectual curiosity and creative imagination.

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

THE BIOLOGY RESEARCH AWARD is presented annually to the graduate who has demonstrated exceptional ability in a research project. The faculty of the Biology Department selects the recipient of this award.

THE CHEMISTRY AWARD is presented by the Department of Chemistry to the graduate who has maintained the highest scholastic average throughout the four years of the chemistry program.

THE WALL STREET JOURNAL AWARD is granted to a graduate in commerce and finance for high scholarship in his field of concentration.

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

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

THE L. J. VAN LAEYS AWARD IN JOURNALISM is given to the graduate who has done the most creditable work in the field of journalism.

THE OUTSTANDING GRADUATE OF THE YEAR AWARD is given by the Wilkes College Alumni Association to the graduate considered by a special faculty committee to have made the strongest contribution to the life of the College.

Undergraduate Awards

THE MRS. JAMES McKANE AWARDS of \$25 each are made to the man and woman in the junior class who have ranked highest in their class throughout their first two years of college.

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

THE JOHN WILKES, INC., ANNUAL FORENSIC AWARD is made annually to the Wilkes student who has demonstrated outstanding ability in the field of forensics during the previous year.

THE WILKES FACULTY WOMEN'S AWARD is given to the sophomore woman who has ranked first in her class during her freshman year.

THE ALPHA RHO CHAPTER OF THE DELTA KAPPA GAMMA SOCIETY AWARD is offered annually to an outstanding young woman in the field of education. The Alpha Rho Committee on Professional Affairs, in cooperation with the Wilkes College Administration, will select a Junior student from Wyoming Valley who shows a concern for and a commitment to the education of young people and who possesses those qualities of enthusiastic leadership which will contribute to the advancement of the teaching profession.

AWARDS

Awards

THE W. E. DOBSON AWARD FOR ACCOUNTING is given to the graduate who has made the most outstanding record in his or her field of study. This year the award was given to Mr. J. L. LAY, who has made a most creditable record in the field of accounting.

THE OUTSTANDING GRADUATE OF THE YEAR AWARD is given to the graduate who has made the most outstanding record in his or her field of study. This year the award was given to Mr. J. L. LAY, who has made a most creditable record in the field of accounting.

THE JAMES M. LAY AWARD is given to the graduate who has made the most outstanding record in his or her field of study. This year the award was given to Mr. J. L. LAY, who has made a most creditable record in the field of accounting.

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The College and the Community

Office of Community Services

Wilkes-Barre Philharmonic Orchestra

Fine Arts Fiesta

Performing Arts Center

Service at Wilkes

It is his own deficiency, and no degree of fate, that makes a man sink into the depths. To think there is no escape from preordained misery is to make the misery perpetual. To seek new paths in a constant renewal of strength — that has always been the secret of progress. When a man waits helplessly for the turning in the wheel of fortune, he has to be regarded as shorn of manhood.

If we could free even one village from the shackles of helplessness and ignorance, an ideal for the whole of India would be established. Let a few villages be rebuilt in this way, and I shall say they are my India. That is the way to discover the true India.

RABINDRANATH TAGORE
Towards Universal Man

The College and the Community

The College was founded to serve the community and has received a large measure of its ever-growing support from outstanding leaders in the community. It has recognized for many years that its growth was related to the economic and social redevelopment of the community and, therefore, it has sought to participate in every effort for community betterment. In consequence, a pattern of cooperation has developed in which the College and the Community work with one another for their mutual benefit.

Institute of Regional Affairs

The Institute of Regional Affairs is a multi-purpose college organization which views regional problems as belonging to no simple academic discipline, but rather as a contemporary phenomenon spilling into many disciplines. It is really the natural integration of prior activities in which members of the Wilkes College faculty have engaged for at least twenty years. The Institute of Regional Affairs was created to assure the coordination of these varied efforts and better understand and resolve complex and contemporary problems.

Its resources include not only the College faculty in the social sciences — economics, psychology, government, sociology — but also those experts in the region who can lend their talents to teaching, research, and consultation. Its four-fold purpose is: education and training, community information, research, and consultation.

1. Labor-Management Courses

To establish a climate for industrial progress, the College has pioneered a management training program under which special classes are organized for personnel in industry, commerce, and banking to meet the needs of business firms in this region. Such programs are arranged in consultation with officials, foremen, and other employees to meet the specific problems of a particular company.

A program designed for members of labor unions is also tailored to the needs of a particular group. All classes are conducted on the campus where the intellectual climate stimulates free intellectual inquiry.

Union and management personnel sometimes meet together in an effort to develop that mutual understanding that is essential to constructive action.

2. Banking

Short courses have been co-sponsored with both the Institute of Banking and the Savings and Loan Institute. The instructional program offered to the personnel of these two groups is intended to assist them to meet changing needs and acquire a broad knowledge in their fields.

3. Municipal Government Program

The fundamental general purpose in assisting local governments has been to help make American democracy stronger by guaranteeing the semi-autonomous structure of American local government, so long as it can retain the capacity to solve its own problems. The program of training, information and consultation service, publications, and research in this field have been aimed at improving the world of local government officials, both elected and appointed. In the fall of 1964, the Glen Alden Coal Company made available an area in Hanover Township known as Concrete City — a 40 acre site — for training the police, firemen, and civil defense workers. The In-Service training program for local government officials has been offered in full cooperation with the Public Service Institute of the Department of Public Instruction, Commonwealth of Pennsylvania.

4. Other Activities

From time to time, the Psychology Department, the Sociology Department, the Education Department, and the Guidance Center have initiated and participated in seminars, conferences, and workshops, in the fields of social welfare, mental health, and education.

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

Wilkes-Barre Philharmonic Orchestra

The Wilkes-Barre Philharmonic Orchestra, organized under the aegis of the College in the fall of 1951, presents a series of four symphony concerts annually. A number of the members are students and faculty from the department of music of the College.

Fine Arts Fiesta

In 1954 several members of the Board of Trustees and the faculty assisted in the formation of the Wilkes-Barre Fine Arts Fiesta, as part of the City's Sesquicentennial celebration. The College participates with area-wide cultural groups in this five-day festival of music, drama, and the arts presented on the public square each spring.

Performing Arts Center

The Center for the Performing Arts provides a varied program of cultural and educational events for the Community as well as the College.

Completed in October, 1965, the gift of friends of the College, the Center has facilities for theater, dance, music, and films. Dramatic productions, student recitals, lectures, choral and band concerts, Town and Gown programs, and other cultural events are offered throughout the year.

The Center is operated by the students under faculty direction and supervision.

With a membership of over 100 members, the Wilkes-Barre Philharmonic Orchestra is one of the largest in the Northeast. The College has supported a number of programs in this field and has helped them become independent community activities.

Wilkes-Barre Philharmonic Orchestra

The Wilkes-Barre Philharmonic Orchestra, organized under the auspices of the College in the fall of 1951, presents a series of four symphonies by Beethoven, Brahms, Mahler, and Tchaikovsky. The orchestra is composed of students and faculty members who are interested in music and who are given the opportunity to perform under the direction of the College.

In 1954 several members of the Board of Trustees and the faculty assisted in the formation of the Wilkes-Barre Philharmonic Orchestra. The College has been instrumental in the development of this organization and has provided the necessary facilities and equipment for its operation.

Performing Arts Center

The Performing Arts Center is a new addition to the College campus. It is a modern building which provides a suitable environment for the performance of plays, musicals, and other theatrical productions. The Center is open to the public and is a valuable asset to the community.

The Center is operated by the students under faculty direction. It provides a practical experience for the students and a means of expression for their creative talents. The Center is a place where the students can develop their skills and where they can share their work with the community.

Undergraduate Programs

Bachelor of Arts Degree

Bachelor of Science Degree

Degree Requirements

Leadership at Wilkes

Those of us who are concerned with the education of young people and with the vitality of our society can never accept uncertainty and confusion as the inevitable condition of society.

We therefore are confronted with two choices. We can grasp and support a rigid ideology that offers final answers by ignoring uncongenial facts and truths, or we can make every effort to comprehend the significance of new facts, new truths, and new conditions.

We must endeavor to extend the vision of our students, enlarge their understanding, and prepare them to participate in strengthening and developing our social institutions.

DR. EUGENE S. FARLEY
President, Wilkes College

Undergraduate Programs

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

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

Bachelor of Arts Degree

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

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

A R E A S

Humanities	Social Sciences	Sciences
English	Commerce and Finance	Biology
Fine Arts	Economics	Chemistry
Foreign Languages	Education	Physics
Mathematics	History	
Music	Political Science	
Philosophy - Religion	Psychology	
	Social Science	
	Sociology	

GENERAL REQUIREMENTS FOR B.A. DEGREE

This is a time of specialization and of disintegration: and one is the consequence of the other.

The rapid development of knowledge makes universal knowledge impossible. There is so much to know that no one can master all the knowledge available in even a single area. Because there is so much to know, specialization of study in the professions and in all work is essential.

Over-specialization narrows the man and splinters society into groups that cannot understand one another. In some instances, specialists become so involved in their narrow fields that they fail to recognize they are all indebted to the same society.

Because specialization is inevitable, and because specialization can become a divisive force, Wilkes College wishes to inject into its program, courses that will broaden the horizons of its students and cultivate some understanding of the "wholeness" of modern society.

To accomplish this end the College requires students to familiarize themselves with the thinking, the processes, and the institutions upon which modern society is founded. Through this program it is hoped that each student will gain breadth of vision, depth of understanding, and an ability to communicate with others so that ideas may be exchanged and understanding attained. Only men and women who combine depth of understanding with breadth of vision can become a unifying force in modern society.

To provide a feasible and productive combination of courses the College's program of general education requires the student to acquire familiarity with the humanities, the social sciences, and the sciences.

The following courses are required of all candidates for the Bachelor of Arts degree. They will usually be taken in the semesters indicated. In a curriculum that requires a student to begin with courses at a more advanced level, the advanced course will be accepted as fulfilling the general requirements in that subject.

Required Courses	Credit Hours	To be Taken in Semesters
<i>Humanities</i>		
Eng. 101, 102 — Composition	6	1-2
Eng. 151, 152 — World Literature	8	3-4
Hist. 101, 102 — World Civilization	6	1-2
Phil. 101 — Introduction; Phil. 102 — Logic	6	3-4-5-6
F.A. 101 — Experiencing Art; or Mus. 101 — Introduction I; or Th. Arts 101 — Approach to Theater ¹	3	1 or 2
For. Lang. ² 101, 102 — Elementary, For. Lang. ² 103, 104 — Intermediate	6-12	1-2-3-4
<i>Math, Science Electives</i>		
Math. ³ 101, 102 — Fundamentals; or Phys. 101, 102 — Physical Science; or Bio. 101, 102 — Biological Science; or Env. Sci. 101 — Earth Science, Env. Sci. 102 — Space Science	12	1-2-3-4
<i>Social Science Electives</i>		
Ec. 101, 102 — Principles; or P. S. 101, 102 — Political Science; or Psy. 101, 102 — General Psychology; or Soc. 101, 102 — Sociology and Anthropology	12	3-4-5-6
<i>Physical Education</i>		
Phys. Ed. 101, 102, 103, 104 — Physical Education	0	1-2-3-4
Phys. Ed. 105, 106 — Hygiene	2	1-2
	67	

¹ Courses in Speech, Argumentation and Debate, and Speech for the Stage (2 credits each) are not required for the Bachelor of Arts degree, but may be taken as an elective.

² In all curricula requiring foreign language the level of the course will depend upon the achievement of the student. Except for foreign language majors, the language requirement is through the 104 course, or an equivalent course prescribed by the student's adviser.

³ The mathematics requirement will vary with individual programs. Students planning to major in Accounting, Biology, Business Administration, Chemistry, Economics, Engineering, Elementary Education, Mathematics, and Physics should check individual program requirements listed in the Bulletin.

SELECTION OF A MAJOR

To provide depth of knowledge, some concentration is required. It is desirable that a major be elected as early as possible, especially in the areas of biology, mathematics, and music. It is essential that the major field of concentration be elected before the beginning of the junior year.

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

Biology	Fine Arts	Physics
Chemistry	Foreign Language	Political Science
Economics	History	Psychology
Education (Elementary and Secondary) ¹	Mathematics	Social Science
English	Music	Sociology
	Philosophy - Religion	

COURSE REQUIREMENTS

The specific requirements for a degree in any of the above majors are listed in the section of this bulletin titled "Degree Requirements." The student with his faculty adviser will plan the proper sequence of his major course requirements.

¹Students wishing to prepare for public school teaching should refer to page 80 for detailed information concerning the selection of a major and the sequence of required courses in Education.

Bachelor of Science Degree

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

GENERAL REQUIREMENTS FOR B. S. DEGREE

The general requirements for the Bachelor of Science degree are basically the same as those required for the Bachelor of Arts degree. Specific requirements are described in this bulletin under the section titled "Degree Requirements."

SELECTION OF A MAJOR

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

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

COURSE REQUIREMENTS

The specific requirements for a degree in any of the above majors are listed in the section of this bulletin titled "Degree Requirements." The student with his faculty adviser will plan the proper sequence of his major course requirements.

Degree Requirements

B.A. AND B.S. DEGREE PROGRAMS

The following section of the bulletin provides the detailed information on the requirements for each of the degree programs offered at Wilkes College.

The general requirements for the B.A. degree are listed on page 73 of this bulletin. They are repeated on the following page to provide guidance in scheduling. Courses in Fundamentals of Speech, Argumentation and Debate, and Speech for the Stage are available as electives that may be taken during the freshman year.

The course sequence listed in the following outline is the standard sequence for all B.A. degree majors except those in biology, chemistry, fine arts, mathematics, music, and physics. These programs will be specifically outlined for convenience in scheduling.

The following pages, therefore, describe the specific course requirements for each B.A. degree major and for each B.S. degree major. The student is responsible for meeting the requirements of his major program. The major subject areas follow in alphabetical order.

General Requirements for B. A. Degree

FIRST SEMESTER

Eng. 101 — Composition	3
For. Lang. 101 — Elementary	3
Hist. 101 — World Civilization	3
Math, Science elective (See page 73)	3
F.A. 101 — Experiencing Art I or Mus. 101 — Introduction or Th. Arts 101 — Approach to Theater ¹	3
P.E. 101 — Physical Education	0
P.E. 105 — Hygiene	1
	<hr/> 15-16

SECOND SEMESTER

Eng. 102. — Composition	3
For. Lang. 102 — Elementary	3
Hist. 102 — World Civilization	3
Math, Science elective (see page 73)	3
F.A. 101 — Experiencing Art I or Mus. 101 — Introduction or Th. Arts 101 — Approach to Theater ¹	3
P.E. 102 — Physical Education	0
P.E. 106 — Hygiene	1
	<hr/> 15-16

THIRD SEMESTER

Eng. 151 — World Literature	4
For. Lang. 103 — Intermediate	3
Math, Science elective (see page 73)	3
Social Science electives (see page 73)	6
(Phil. 101 — Introduction) ²	
P.E. 103 — Physical Education	0
	<hr/> 16

FOURTH SEMESTER

Eng. 152 — World Literature	4
For. Lang. 104 — Intermediate	3
Math, Science elective (see page 73)	3
Social Science electives (see page 73)	6
(Phil. 102 — Logic) ²	
P.E. 104 — Physical Education	0
	<hr/> 16

FIFTH SEMESTER

Phil. 101 — Introduction ²	3
Major and electives ³	12-13
	<hr/> 15-16

SIXTH SEMESTER

Phil. 102 — Logic ²	3
Major and electives ³	12-13
	<hr/> 15-16

SEVENTH SEMESTER

Major and electives	15-16
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EIGHTH SEMESTER

Major and electives	15-16
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¹ Courses in Speech, Argumentation and Debate, and Speech for the Stage (2 credits each) are not required for the Bachelor of Arts degree, but may be taken as an elective during the freshman year.

² Philosophy majors or students interested in earlier scheduling of philosophy may take Phil. 101 and 102 in the third and fourth semester by later scheduling of the social science requirement. Other Philosophy or Religion courses may be substituted for Phil. 102 in any major with the approval of the student's adviser and the Philosophy Department chairman. No substitutions are permitted for Phil. 101.

³ Students planning to fulfill requirements for teacher certification will usually take required education courses as electives in the fifth and sixth semester.

Course Requirements in the Majors

Biology¹

The biology program is a general program covering basic areas of biology. Specific pre-professional training is minimized in favor of the broadest possible background in the liberal arts as well as the biological sciences. Students planning to major in biology should take courses in secondary school that prepare them to start the College mathematics program with the course in analysis, Math. 111. Experience has shown that students who have not had a minimum of four years of mathematics study in secondary school will usually require some pre-college summer course. The student may take the Pre-Calculus Mathematics (Math. 100) offered at Wilkes, or with the approval of the mathematics department take an equivalent course at some other college or university. Credit in this remedial course does not exempt the student from any required elective in his program.

The B.S. curriculum listed on page 89 is recommended for the student interested in a professional career in biology.

The following are the degree requirements for the Bachelor of Arts degree with a major in biology.

FIRST SEMESTER		SECOND SEMESTER	
Bio 103 — General Biology	4	Bio. 104 — General Biology	4
Chem. 201 — Principles of Chemistry	4	Chem. 202 — Chemical Equilibria	4
Eng. 101 — Composition	3	Eng. 102 — Composition	3
Math 111 — Analysis I	4	Math. 112 — Analysis II	4
P. E. 101 — Physical Education	0	P. E. 102 — Physical Education	0
P. E. 105 — Hygiene	1	P. E. 106 — Hygiene	1
	16		16
THIRD SEMESTER		FOURTH SEMESTER	
Bio. 201 — Vertebrate Morphogenesis	4	Bio. 202 — Biology of Vertebrate Organs	4
Chem. 221 — Inorganic Quantitative Analysis	4	Chem. 232 — Organic Chemistry	4
For. Lang. 101 — Elementary	3	For. Lang. 102 — Elementary	3
Hist. 101 — World Civilization	3	Hist. 102 — World Civilization	3
Electives ²	3-4	Electives ²	3-4
P. E. 103 — Physical Education	0	P. E. 104 — Physical Education	0
	17-18		17-18

¹ A pre-professional degree program is described on page 54. The first three years of the program described here will be followed by pre-professional candidates.

² Electives must include: Ec., P.S., Psy., Soc. 101-102 — 12; Eng. 151, 152 — 8; Phil. 101, 102 — 6; F.A. 101 or Mus. 101 or Th. Arts 101 — 3; Bio. 311 and/or Bio. 331 (7th semester) or Bio. 332 (8th semester) — 4-8.

FIFTH SEMESTER

Bio. 321 — Genetics	4
For. Lang. 103 — Intermediate	3
Phys. 105 — Introduction	4
Electives ¹	6-7
	17-18

SEVENTH SEMESTER

Bio. 397 — Seminar	1
Electives ¹	15-17
	16-18

SIXTH SEMESTER

Bio. 322 — Ecology	3
Bio. 224 — Biological Techniques	1
For. Lang. 104 — Intermediate	3
Phys. 106 — Introduction	4
Electives ¹	4-7
	15-18

EIGHTH SEMESTER

Bio. 397 — Seminar	1
Electives ¹	15-17
	16-18

Chemistry

This curriculum is designed for the student interested in a major in chemistry in preparation for a career in teaching, medicine, dentistry, technical sales, technical librarianship, as technical translator, etc. The student will choose electives after consultation with his adviser.

Experience has shown that students who have not had a minimum of four years of mathematics study in secondary school will usually require some pre-college summer course. The student may take the Pre-Calculus Mathematics (Math. 100) offered at Wilkes, or with the approval of the mathematics department, take an equivalent course at some other college or university. Credit in this remedial course does not exempt the student from any required elective in his program.

The B.S. curriculum listed on page 90 is recommended for the student interested in a professional career in chemistry.

Chemistry 212 and 341 must be taken in addition to those courses listed below. The general requirements for the B.A. degree, listed on page 73 in the bulletin, must also be met.

FIRST SEMESTER		SECOND SEMESTER	
Chem. 201 — Introduction to the Principles of Chemistry	4	Chem. 202 — Chemical Equilibria	4
Hist. 101 — World Civilization	3	Hist. 102 — World Civilization	3
Math. 111 — Analysis I	4	Math. 112 — Analysis II	4
Eng. 101 — Composition	3	Eng. 102 — Composition	3
P. E. 101 — Physical Education	0	P. E. 102 — Physical Education	0
P. E. 105 — Personal Hygiene	1	P. E. 106 — Personal Hygiene	1
	15		15

¹ Electives must include: Ec., P.S., Psy., Soc. 101-102 — 12; Eng. 151, 152 — 8; Phil. 101, 102 — 6; F.A. 101 or Mus. 101 or Th. Arts 101 — 3; Bio. 311 and/or Bio. 331 (7th semester) or Bio. 332 (8th semester) — 4-8.

THIRD SEMESTER

Chem. 221 — Inorganic Quantitative Analysis	4
Math. 211 — Intermediate Analysis I	4
Phys. 201 — General Physics I	4
Electives	6
	<hr/> 18

FIFTH SEMESTER

Chem. 233 — Organic Chemistry	4-5
Phys. 203 — General Physics III	3
Electives	9
	<hr/> 16-17

SEVENTH SEMESTER

Chem. 261 — History of Chemistry	1
Electives	14-17
	<hr/> 15-18

FOURTH SEMESTER

Chem. 232 — Organic Chemistry	4
Phys. 202 — General Physics II	4
Electives	9
	<hr/> 17

SIXTH SEMESTER

Chem. 262 — Chemical Literature	1
Electives	15
	<hr/> 16

EIGHTH SEMESTER

Electives	15-18
	<hr/> 15-18

Economics

Students who major in Economics are required to complete twenty-four hours of work in economics beyond Ec. 101, 102 in addition to the general requirements for the B. A. degree. Selection and scheduling of these courses will be done in consultation with the student's adviser. The twenty-four hours in economics which the major must carry include Ec. 201, 202, 231, 232, and 241. Students who elect a program in Economics should take Math. 100, Math. 111 and 112.

Education

Students wishing to prepare for public school teaching in Business subjects or Music complete the B.S. program described for these subjects. Other prospective teachers must satisfy B.A. degree requirements subject to the following restrictions:

1. Prospective elementary school teachers:

- may select any major listed on page 74.
- must elect Math. 103-104.
- must elect Psych. 101-102.
- must elect Ed. 201, 202, 299, and 300. (Note that Psych. 102 is prerequisite to Ed. 202.)

2. Prospective secondary school teachers:

- may elect to major in Biology, Chemistry, Economics, English, Foreign Languages, History, Mathematics, Physics, or Political Science. Students who major in Economics or Political Science must complete 18 credits in History beyond 102.
- must elect Psych. 101-102.
- must elect Ed. 201, 202, and 330. (Note that Psych. 102 is prerequisite to Ed. 202.)

Teacher certification requirements for most states may be met at Wilkes College. Students are expected to familiarize themselves with specific state requirements.

English

Students who major in English are required to take English 101, 102, and 131 in the freshman year; 151 and 152 in the sophomore year; and 24 credit hours including 201, 204, 213, 221 in addition to the general requirements for the B.A. degree. Those students planning to become public school teachers must also include either English 381 or English 382 among their required courses. English 132 or Theater Arts 131 may be taken instead of English 131, and English 203 may be taken instead of English 201. Selection and scheduling of these courses will be done in consultation with the student's adviser. Students with at least a 3.0 average in 101, 102, and 151 may take an advanced English course simultaneously with 152. The English Department strongly recommends that its majors choose either German or French as their foreign language.

Fine Arts

Students who major in Fine Arts are required to complete the following program of studies in addition to the general requirements for the B. A. degree. Electives may be used to fulfill the requirements for certification in education.

FIRST SEMESTER

Eng. 101 — Composition	3
Hist. 101 — World Civilization	3
For. Lang. 101 ¹ — Elementary	3
F.A. 201 — Color and Design	3
P.E. 101 — Physical Education	0
P.E. 105 — Hygiene	1
Math., Science Elective (see page 73)	3
	<hr/> 16

SECOND SEMESTER

Eng. 102 — Composition	3
Hist. 102 — World Civilization	3
For. Lang. 102 ¹ — Elementary	3
F.A. 202 — Drawing & Composition	3
P.E. 102 — Physical Education	0
P.E. 106 — Hygiene	1
Math., Science Elective (see page 73)	3
	<hr/> 16

¹French or German is recommended for students who plan to continue with graduate programs in Art.

THIRD SEMESTER

Eng. 151 — World Literature	4
For. Lang. 103 — Intermediate	3
F.A. 203 — Oil Painting I	3
F.A. 223 — History of Art I	3
P. E. 103 — Physical Education	0
Math., Science Elective (see page 73)	3
	<hr/> 16

FIFTH SEMESTER

Phil. 101 — Introduction	3
F.A. 211 — Modeling & Construction	3
F.A. 213 — Metalwork and Jewelry	3
F.A. 226 — History of Modern Art	3
Social Science Electives (see page 73)	6
	<hr/> 18

SEVENTH SEMESTER

F.A. 231 — Contemporary Design	2
F.A. 332 — Studio Problems	2
F.A. 311' — Senior Exhibit	2
Electives	9-12
	<hr/> 15-16

FOURTH SEMESTER

Eng. 152 — World Literature	4
For. Lang. 104 — Intermediate	3
F.A. 204 — Water Color Painting	3
F.A. 224 — History of Art II	3
P. E. 104 — Physical Education	0
Math., Science Elective (see page 73)	3
	<hr/> 16

SIXTH SEMESTER

Phil. 205 — Aesthetics	3
F.A. 212 — Ceramics	3
F.A. 206 — Graphics	3
Elective (optional)	0-3
Social Science Electives (see page 73)	6
	<hr/> 15-18

EIGHTH SEMESTER

F.A. 311' — Senior Exhibit	2
Electives	14-15
	<hr/> 14-16

Foreign Languages (Modern)

A major in any of the modern foreign languages consists of twenty-four additional credit hours in advanced language courses beyond the 102 course.

History

Students who major in history are required to take History 101 and 102 in the freshman year, History 107 and 108 in the sophomore year, and 18 additional credit hours in advanced history courses. Advanced courses taken must include a minimum of six hours each in American and non-American topics. Individuals planning graduate study in history are urged to take History 371 and 395 or 396.

Mathematics

Students who major in mathematics are required to complete twenty-four hours of courses numbered above 211, including Math. 212, 222, 311-312, 331, and 334, in addition to the general requirements for the B.A. degree (with the exception of Phil. 102 which is replaced by Math. 222 — Set Theory and Logic).

¹ Senior Exhibit will be scheduled either the seventh or eighth semester after consultation with the department chairman.

The B.S. curriculum listed on page 100 is recommended for the student interested in a professional career in mathematics.

Prospective elementary or secondary teachers are advised to elect Math. 351-352 and 343.

It is highly recommended that the prospective mathematics majors elect French, German, or Russian in high school. As a rule, three years of one of these languages is more desirable than two years or less of each of two different languages. Spanish is not recommended.

The following program lists the sequence of course requirements for the B.A. degree in Mathematics and the semesters in which they should normally be taken.

FIRST SEMESTER

Eng. 101 — Composition	3
For. Lang. 101 — Elementary	3
Elective ¹	3
Social Science Elective ²	3
Math. 111 — Analysis I	4
P.E. 101 — Physical Education	0
P.E. 105 — Hygiene	1
	<hr/> 17

THIRD SEMESTER

Eng. 151 — World Literature	4
For. Lang. 103 — Intermediate	3
Elective ³	3
Phys. 202 — General Physics II	4
Math. 211 — Intermediate Analysis I	4
P.E. 103 — Physical Education	0
	<hr/> 18

FIFTH SEMESTER

Hist. 101 — World Civilization	3
Social Science Elective ²	3
Electives ⁴	9-12
	<hr/> 15-18

SEVENTH SEMESTER

Electives ⁴	15-18
------------------------	-------

SECOND SEMESTER

Eng. 102 — Composition	3
For. Lang. 102 — Elementary	3
Phys. 201 — General Physics I	4
Social Science Elective ²	3
Math. 112 — Analysis II	4
P.E. 102 — Physical Education	0
P.E. 106 — Hygiene	1
	<hr/> 18

FOURTH SEMESTER

Eng. 152 — World Literature	4
For. Lang. 104 — Intermediate	3
Math. 222 — Set Theory and Logic	3
Phys. 203 — General Physics III	3
Math. 212 — Intermediate Analysis II	4
P.E. 104 — Physical Education	0
	<hr/> 17

SIXTH SEMESTER

Hist. 102 — World Civilization	3
Social Science Elective ²	3
Electives ⁴	9-12
	<hr/> 15-18

EIGHTH SEMESTER

Electives ⁴	15-18
------------------------	-------

¹ Must be one of these: F.A. 101 — Experiencing Art I, Mus. 101 — Introduction, or Th. Arts 101 — Approach to Theater.

² Must elect two out of the four sequences: Ec., Psy., Soc., P.S. 101-102. Prospective elementary or secondary teachers must elect Psy. 101-102 in their freshman year.

³ Prospective elementary or secondary teachers must elect Ed. 201 — Introduction. Others should elect Phil. 101 — Introduction.

⁴ These elective must include:

a. Math. 311-312, 331, 334 and at least two other mathematics courses numbered above 222, and
b. Phil. 101 if the student has elected Ed. 201 in the third semester.

Music¹

Students who major in music are required to complete the following program of studies in addition to the general requirements for the B. A. degree. Students interested in careers in music education should follow the program described in the Bachelor of Science in Music Education. This program is described on page 102 of this bulletin. The following are the course requirements for the music major.

FIRST SEMESTER		SECOND SEMESTER	
Math. 101 — Fundamentals or Bio. 101 — Biological Science or Phys. 101 — Physical Science or Env. Sci. 101 — Earth Science	3	Math. 102 — Fundamentals or Bio. 102 — Biological Science or Phys. 102 — Physical Science or Env. Sci. 102 — Space Science	3
Eng. 101 — Composition	3	Eng. 102 — Composition	3
For. Lang. 101 — Elementary	3	For. Lang. 102 — Elementary	3
Mus. 105 — Theory of Music	5	Mus. 106 — Theory of Music	5
Applied Music ²	1	Applied Music ²	1
Band, Orchestra, Chorus	1/2	Band, Orchestra, Chorus	1/2
P. E. 101 — Physical Education	0	P. E. 102 — Physical Education	0
P. E. 105 — Hygiene	1	P. E. 106 — Hygiene	1
	16 1/2		16 1/2
THIRD SEMESTER		FOURTH SEMESTER	
For. Lang. 103 — Intermediate	3	For. Lang. 104 — Intermediate	3
Mus. 107 — Theory of Music	5	Mus. 108 — Theory of Music	5
Applied Music ²	1	Applied Music ²	1
Psy. 101 — Psychology	3	Psy. 102 — Psychology	3
Hist. 101 — World Civilization	3	Hist. 102 — World Civilization	3
Math. 101 — Fundamentals or Bio. 101 — Biological Science or Phys. 101 — Physical Science or Env. Sci. 101 — Earth Science	3	Math. 102 — Fundamentals or Bio. 102 — Biological Science or Phys. 102 — Physical Science or Env. Sci. 102 — Space Science	3
Band, Orchestra, Chorus	1/2	Band, Orchestra, Chorus	1/2
P. E. 103 — Physical Education	0	P. E. 104 — Physical Education	0
	18 1/2		18 1/2
FIFTH SEMESTER		SIXTH SEMESTER	
Eng. 151 — World Literature	4	Eng. 152 — World Literature	4
Phil. 101 — Introduction	3	Phil. 230 — Aesthetics	3
Mus. 109 — History of Music	3	Mus. 110 — History of Music	3
Applied Music ²	2	Applied Music ²	2
Soc. 101 — Sociology	3	Soc. 102 — Sociology	3
Band, Orchestra, Chorus	1/2	Band, Orchestra, Chorus	1/2
	15 1/2		15 1/2

¹ There is a music fee of \$10 per semester for all music and music education majors.

² Private instruction. The fee for this instruction is in addition to the regular tuition charge.

SEVENTH SEMESTER

Applied Music ¹	2
Mus. 215 — Instrumentation	2
Mus. 217 — Analysis	2
Band, Orchestra, Chorus	1/2
Electives	9
	15 1/2

EIGHTH SEMESTER

Applied Music ¹	2
Mus. 216 — Arranging	2
Mus. 218 — Counterpoint	3
Band, Orchestra, Chorus	1/2
Electives	9
	16 1/2

Philosophy — Religion

A major in the combined fields of philosophy and religion consists of twenty-four hours in philosophy and religion courses beyond Philosophy 101 and 102. At least eighteen hours of the twenty-four hours must be taken in Philosophy. Philosophy-Religion majors must schedule courses in philosophy and religion in their sophomore year.

Physics

This B.A. curriculum in physics is designed for the student interested in a major in physics in preparation for a career in teaching, medicine, dentistry, patent law, technical sales, technical translation, technical writing, etc. The student will choose electives after consultation with his adviser.

The B.S. curriculum on page 104 is recommended for the student interested in a professional career in physics.

Experience has shown that students who have not had a minimum of four years of mathematics study in secondary school will usually require some pre-college summer course. The student may take the Pre-Calculus Mathematics (Math. 100) offered at Wilkes, or with the approval of the mathematics department take an equivalent course at some other college or university. Credit in this remedial course does not exempt the student from any required elective in his program. Normally students will begin the physics program in the first semester. In exceptional cases the mathematics and physics sequence may be started in the third semester. The preferred sequence is listed below:

FIRST SEMESTER		SECOND SEMESTER	
Math. 111 — Analysis I	4	Math. 112 — Analysis II	4
Eng. 101 — Composition	3	Eng. 102 — Composition	3
Hist. 101 — World Civilization	3	Hist. 102 — World Civilization	3
Phys. 201 — General Physics I	4	Phys. 202 — General Physics II	4
P.E. 105 — Personal Hygiene	1	P.E. 106 — Personal Hygiene	1
P.E. 101 — Physical Education	0	P.E. 102 — Physical Education	0
	15		15

¹ Private instruction. The fee for this instruction is in addition to the regular tuition charge.

THIRD SEMESTER

Math. 211 — Intermediate Analysis I	4
Phys. 203 — General Physics III	3
For. Lang. 101 — Elementary	3
P.E. 103 — Physical Education	0
Chem. 203 — Introduction to Principles of Chemistry	4
F.A. 101 — Experiencing Art I or Mus. 101 — Introduction or Th. Arts 101 — Approach to Theater	3
	<hr/> 17

FIFTH SEMESTER

Phys. 331 — Electricity & Magnetism	4
For. Lang. 103 — Intermediate	3
Phys. 311 — Mechanics	3
Eng. 151 — World Literature	4
Elective	3
	<hr/> 17

SEVENTH SEMESTER

Phil. 101 — Introduction	3
Electives	13
	<hr/> 16

FOURTH SEMESTER

Math. 212 — Intermediate Analysis II	4
For. Lang. 102 — Elementary	3
Chem. 202 — Chemical Equilibria	4
P.E. 104 — Physical Education	0
Electives	6-7

SIXTH SEMESTER

For. Lang. 104 — Intermediate	3
Eng. 152 — World Literature	4
Electives	9-10
	<hr/> 16-17

EIGHTH SEMESTER

Phil. 102 — Logic	3
Electives	13
	<hr/> 16

The student must choose at least six credits from the following list in addition to those prescribed in the curriculum:

Physics 230 (4)	Physics 332 (4)
Physics 231 (3)	Physics 361 (4)
Physics 240 (3)	Physics 380 (4)
Physics 312 (3)	Physics 391-392 (1-2)

A student electing the minimum of 24 credits in physics must elect an additional four credits in chemistry.

The student must choose 12 credits from the following course combinations:

Economics 101 and 102 or Psychology 101 and 102; Political Science 101 and 102 or Sociology 101 and 102.

Political Science

A major in political science consists of twenty-four hours which must include either Political Science 201 or Political Science 202. Political Science 101 and 102 are not accepted toward a major.

Psychology

A major in psychology consists of twenty-four hours. Psychology 101 and 102 are not accepted toward a major; Sociology 255 and Education 202 are accepted. Psychology 211 and 212 are required for the major. In addition to the general requirements the department requires that the two-semester courses in mathematics, physics, and general biology be taken. In addition, English 131 or 132 or Theater Arts 131 and Economics 231 are required.

The major in psychology is designed for students who plan to continue the study of psychology on the graduate level, as well as for those whose interests lie in the teaching of psychology in colleges or in the application of the study to such fields as advertising, clinical work, business, education, and industrial personnel work. Students are cautioned that an undergraduate major in psychology does not qualify them for professional psychological work. No student can qualify as a psychologist without advanced graduate study; in a great many fields today, moreover, professional psychologists must hold the degree of Doctor of Philosophy.

Sociology — Anthropology

A major in sociology consists of twenty-four hours. Although Sociology 101, 102 are prerequisites to all the courses in sociology, they are not accepted toward a major in sociology. Political Science 204 and Philosophy 240 will be accepted toward the major in sociology. Students who intend to major in sociology are requested to plan their work in the department in consultation with the chairman. A major in sociology shall include the following courses: Sociology 255, 280, and 397. With the approval of the department chairman, however, other courses may in some instances be substituted.

Social Science--Urban Affairs

The Social Science degree with a major in urban affairs is designed to provide an interdisciplinary training for those students who wish to enter careers in governmental or non-governmental agencies concerned with the general phenomenon of urbanization at the national, state, or local level. Students who complete academic work in this program can continue graduate study either in the traditional academic disciplines or in interdepartmental programs.

The Social Science major in urban affairs consists of 39 semester hours in political science, economics, and sociology, with a minimum of 12 semester hours in each. Economics 236, Political Science 251, and Sociology 215 are required. Political Science 101 and 102, Economics 101 and 102, and Sociology 101 and 102 are not accepted toward the major.

Students who intend to pursue this program should consult with the director of the Institute of Regional Affairs.

Course Requirements for B.S. Degree Programs

Biology¹

The following curriculum in biology meets all of the liberal arts requirements for the Bachelor of Arts degree. In addition, it provides a greater concentration of advanced biology courses. This program is recommended for those students planning to enter industry or continue with graduate study in biology. Students planning to major in biology should check the mathematics requirements on page 78.

FIRST SEMESTER		SECOND SEMESTER	
Bio. 103 — General Biology	4	Bio. 104 — General Biology	4
Chem. 201 — Principles of Chemistry	4	Chem. 202 — Chemical Equilibria	4
Eng. 101 — Composition	3	Eng. 102 — Composition	3
Math. 111 — Analysis I	4	Math. 112 — Analysis II	4
P. E. 101 — Physical Education	0	P. E. 102 — Physical Education	0
P. E. 105 — Hygiene	1	P. E. 106 — Hygiene	1
	16		16
THIRD SEMESTER		FOURTH SEMESTER	
Bio. 201 — Vertebrate Morphogenesis	4	Bio. 202 — Biology of Vertebrate Organs	4
Chem. 221 — Inorganic Quantitative Analysis	4	Chem. 232 — Organic Chemistry	4
Eng. 151 — World Literature	4	Eng. 152 — World Literature	4
Hist. 101 — World Civilization	3	Hist. 102 — World Civilization	3
For. Lang. 101 — Elementary	3	For. Lang. 102 — Elementary	3
P. E. 103 — Physical Education	0	P. E. 104 — Physical Education	0
	18		18
FIFTH SEMESTER		SIXTH SEMESTER	
Bio. 321 — Genetics	4	Bio. 322 — Ecology	3
Chem. 235 — Organic Chemistry	4	Bio. 224 — Biological Techniques	1
Ec., Psy., P.S., Soc. 101	3	Ec., Psy., P.S., Soc. 102	3
For. Lang. 103 — Intermediate	3	For. Lang. 104 — Intermediate	3
Phys. 105 — Introduction	4	Phys. 106 — Introduction	4
	18	Electives	3
SEVENTH SEMESTER		EIGHTH SEMESTER	
Bio. 311 — Bacteriology	4	Bio. 312 — Bacteriology	4
Bio. 331 — Physiology	4	Bio. 332 — Evolutionary Mechanisms	3
Bio. 397 — Seminar	1	Bio. 397 — Seminar	1
Phil. 101 — Introduction	3	Phil. 102 — Logic	3
Ec., Psy., P.S., Soc. 101	3	Ec., Psy., P.S., Soc. 102	3
Elective	3	Elective	3
	18		17

¹ This degree meets the same general requirements as listed for B.A. Degree, page 78.

Chemistry

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

Experience has shown that students who have not had a minimum of four years of mathematics study in secondary school will usually require some pre-college summer course. The student may take the Pre-Calculus Mathematics (Math. 100) offered at Wilkes, or with the approval of the mathematics department take an equivalent course at some other college or university. Credit in this remedial course does not exempt the student from any required elective in his program.

Wilkes is approved by the American Chemical Society for the professional training of chemists. Students who wish to be certified for membership in the American Chemical Society in the minimum period of two years following graduation must elect Chemistry 310 in the senior year of the B.S. course of study.

FIRST SEMESTER

Chem. 201 — Introduction to the Principles of Chemistry	4
Eng. 101 — Composition	3
Hist. 101 — World Civilization	3
Math. 111 — Analysis I	4
P.E. 101 — Physical Education	0
P.E. 105 — Hygiene	1
	<hr/>
	15

THIRD SEMESTER

Chem. 221 — Inorganic Quantitative Analysis	4
For. Lang. 101 — Elementary	3
Math. 211 — Intermediate Analysis I	4
Phys. 201 — General Physics I	4
P.E. 103 — Physical Education	0
	<hr/>
	15

SECOND SEMESTER

Chem. 202 — Chemical Equilibria	4
Eng. 102 — Composition	3
Hist. 102 — World Civilization	3
Math. 112 — Analysis II	4
P.E. 102 — Physical Education	0
P.E. 106 — Hygiene	1
	<hr/>
	15

FOURTH SEMESTER

Chem. 212 — Inorganic Chemistry	3
Chem. 232 — Organic Chemistry	4
For. Lang. 102 — Elementary	3
Math. 212 — Intermediate Analysis II	4
Phys. 202 — General Physics II	4
P.E. 104 — Physical Education	0
	<hr/>
	18

Chemistry

FIFTH SEMESTER

Chem. 233 — Organic Chemistry	5
Chem. 341 — Elementary Physical Chemistry	4
Eng. 151 — World Literature	4
For. Lang. 103 — Intermediate	3
Phys. 203 — General Physics III	3
	<hr/>
	19

SEVENTH SEMESTER

Chem. 395 — Research	3
Chem. 261 — History of Chemistry	1
Chem. 397 — Seminar	1/2
Electives ¹	12-14
	<hr/>
	16 1/2 - 18 1/2

SIXTH SEMESTER

Chem. 334 — Organic Qualitative Analysis	3
Chem. 342 — Intermediate Physical Chemistry	4
Chem. 262 — Chemical Literature	1
Eng. 152 — World Literature	4
For. Lang. 104 — Intermediate	3
Elective ¹	3
	<hr/>
	15-18

EIGHTH SEMESTER

Chem. 376 — Advanced Analytical Chemistry	4
Chem. 397 — Seminar	1/2
Electives ¹	11-12
	<hr/>
	15 1/2 - 16 1/2

¹Electives must include two philosophy courses, Mus. 101 or F.A. 101 or Th. Arts 101, at least one advanced chemistry course in Semester 7 and/or Semester 8, and one of the following: P.S. 101-102, Psy. 101-102, or Soc. 101-102.

Commerce and Finance

MAJOR IN ACCOUNTING

FIRST SEMESTER

Acct. 101 — Elementary I	3
Eng. 101 — Composition	3
Hist. 101 — World Civilization	3
Ec. 111 — Economic History	3
Math. 100 — Pre-calculus Mathematics	4
P. E. 101 — Physical Education	0
P. E. 105 — Hygiene	1
	<hr/>

17

THIRD SEMESTER

Acct. 111 — Intermediate I	3
B. A. 231 — Business Law	3
Ec. 101 — Principles I	3
Eng. 151 — World Literature	4
Bio. 101 — Biological Science or Phys. 101 — Physical Science or Env. Sci. 101 — Earth Science	3
Eng. 131 — Fundamentals of Speech	2
P. E. 103 — Physical Education	0
	<hr/>

18

FIFTH SEMESTER

Acct. 201 — Cost Accounting I	3
Ec. 201 — Money & Banking	3
Ec. 231 — Applied Statistics	3
Soc. 101 — Sociology or P. S. 101 — Political Science I	3
Phil. 101 — Introduction	3
Elective ¹	3
	<hr/>

18

SEVENTH SEMESTER

Acct. 221 — Taxes I	3
Acct. 231 — Auditing I	3
B. A. 209 — Correspondence & Reports	3
B. A. 225 — Corporation Finance	3
B. A. 251 — Principles of Management I	3
Elective ¹	3
	<hr/>

18

SECOND SEMESTER

Acct. 102 — Elementary II	3
Eng. 102 — Composition	3
Hist. 102 — World Civilization	3
F. A. 101 — Experiencing Art I or Mus. 101 — Introduction or Th. Arts 101 — Approach to Theater	3
B. A. 115 — Mathematics of Business and Finance	3
P. E. 102 — Physical Education	0
P. E. 106 — Hygiene	1
	<hr/>

16

FOURTH SEMESTER

Acct. 112 — Intermediate II	3
B. A. 232 — Business Law	3
Ec. 102 — Principles II	3
Eng. 152 — World Literature	4
Bio. 102 — Biological Science or Phys. 102 — Physical Science or Env. Sci. 102 — Space Science	3
P. E. 104 — Physical Education	0
	<hr/>

16

SIXTH SEMESTER

Acct. 202 — Cost Accounting II	3
Acct. 242 — Advanced	3
B. A. 233 — Business Law	3
Ec. 232 — Economic Statistics	3
Soc. 102 — Sociology or P. S. 102 — Political Science II	3
Elective ¹	3
	<hr/>

18

EIGHTH SEMESTER

Acct. 232 — Auditing II	3
Acct. 252 — Internship	3
Ec. 202 — Theory of Money or Ec. 236 — Public Finance	3
Ec. 228 — Economic Geography	3
Elective ¹	3
	<hr/>

15

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

Commerce and Finance

MAJOR IN BUSINESS ADMINISTRATION

FIRST SEMESTER

Acct. 101 — Elementary I	3
Ec. 111 — Economic History	3
Eng. 101 — Composition	3
Hist. 101 — World Civilization	3
Bio. 101 — Biological Science or Phys. 101 — Physical Science or Env. Sci. 101 — Earth Science	3
P. E. 101 — Physical Education	0
P. E. 105 — Hygiene	1
	<hr/>

16

THIRD SEMESTER

B. A. 231 — Business Law	3
Ec. 101 — Principles I	3
Eng. 151 — World Literature	4
Math. 100 — Pre-calculus Mathematics	4
P. S. 101 — Political Science I or Soc. 101 — Sociology	3
P. E. 103 — Physical Education	0
	<hr/>

17

FIFTH SEMESTER

B. A. 251 — Principles of Management	3
Ec. 201 — Money & Banking	3
Ec. 231 — Applied Statistics	3
Phil. 101 — Introduction	3
Electives	6
	<hr/>

18

SEVENTH SEMESTER

B. A. 209 — Correspondence & Reports	3
B. A. & Ec. electives	12
Elective	3
	<hr/>

18

SECOND SEMESTER

Acct. 102 — Elementary II	3
F. A. 101 — Experiencing Art I or Mus. 101 — Introduction or Th. Arts 101 — Approach to Theater	3
Eng. 102 — Composition	3
Eng. 131 — Fundamentals of Speech	2
Hist. 102 — World Civilization	3
Bio. 102 — Biological Science or Phys. 102 — Physical Science or Env. Sci. 102 — Space Science	3
P. E. 102 — Physical Education	0
P. E. 106 — Hygiene	1
	<hr/>

18

FOURTH SEMESTER

B. A. 232 — Business Law	3
Ec. 102 — Principles II	3
Eng. 152 — World Literature	4
B. A. 115 — Mathematics of Business and Finance	3
P. S. 102 — Political Science II or Soc. 102 — Sociology	3
P. E. 104 — Physical Education	0
	<hr/>

16

SIXTH SEMESTER

B. A. 252 — Principles of Management II	3
Ec. 202 — Theory of Money or Ec. 228 — Economic Geography or C and F elective	3
Ec. 232 — Economic Statistics	3
Phil. 102 — Logic	3
B. A. 222 — Marketing	3
Elective	3
	<hr/>

18

EIGHTH SEMESTER

B. A. & Ec. electives	12
Elective	3
	<hr/>

15

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

BANKING AND FINANCE

B. A. 220 — Real Estate	Ec. 236 — Public Finance
B. A. 225 — Corporation Finance	Ec. 241 — Economic Analysis
B. A. 226 — Investments	Math. 111 — Analysis I
Ec. 202 — Theory of Money	Math. 112 — Analysis II
Ec. 225 — International Trade	Math. 267-268 — Introduction to Computer Programming I-II

ECONOMICS

Ec. 212 — Government & Business	Ec. 230 — Business Cycles
Ec. 217 — Economics of Transportation	Ec. 236 — Public Finance
Ec. 222 — American Labor Movement	Ec. 241 — Economic Analysis
Ec. 223 — Collective Bargaining	Ec. 245 — Consumer Economics
Ec. 225 — International Trade	Ec. 395-396 — Research
Ec. 226 — Economic Geography of the World	Math. 111 — Analysis I
Ec. 229 — Comparative Economic Systems	Math. 112 — Analysis II
	Math. 267-268 — Introduction to Computer Programming I-II

MANAGEMENT AND INDUSTRIAL RELATIONS

B. A. 251 — Principles of Management I	Psy. 251 — Industrial Psychology
B. A. 252 — Principles of Management II	Math. 111 — Analysis I
Ec. 222 — American Labor Movement	Math. 112 — Analysis II
B. A. 240 — Property Insurance	Soc. 265 — Sociology of Industry
B. A. 241 — Life Insurance	P.S. 208 — Labor Legislation
Ec. 223 — Collective Bargaining	Math. 267-268 — Introduction to Computer Programming I-II
Psy. 212 — Psychological Tests	

MARKETING

B. A. 114 — Salesmanship	Math. 112 — Analysis II
B. A. 216 — Advertising	Ret. 101 — Principles of Retailing
B. A. 240 — Property Insurance	Ret. 214 — Retail Buying
Ec. 217 — Economics of Transportation	Soc. 265 — Sociology of Industry
Ec. 225 — International Trade	Psy. 243 — Industrial Psychology
Ec. 245 — Consumer Economics	Math. 267-268 — Introduction to Computer Programming I-II
Math. 111 — Analysis I	

MAJOR IN BUSINESS EDUCATION

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

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

FIRST SEMESTER

S. S. 105 — Elementary Shorthand	2
or Acct. 101 — Elementary I	3
S. S. 107 — Elementary Typewriting	2
Eng. 131 — Fundamentals of Speech	2
Bio. 101 — Biological Science or	
Phys. 101 — Physical Science or	
Env. Sci. 101 — Earth Science	3
Eng. 101 — Composition	3
Hist. 101 — World Civilization	3
P. E. 101 — Physical Education	0
P. E. 105 — Hygiene	1
	16-17

THIRD SEMESTER

S. S. 207 — Advanced Shorthand	
or Acct. 111 — Intermediate I	3
S. S. 201 ¹ — Advanced Typewriting	1
Acct. 101 — Elementary I	
or Ret. 101 — Principles	3
B. A. 231 — Business Law	3
Psy. 101 — Psychology	3
Ec. 101 ² — Principles I	3-4
P. E. 103 — Physical Education	0
	15-17

FIFTH SEMESTER

Acct. 111 — Intermediate I	
or Ret. 101 — Principles	
or Elective ³	3
Soc. 101 — Sociology	
or P.S. 101 — Political Science I	3
Eng. 151 — World Literature	4
Ed. 201 — Introduction	3
B.A. 251 — Principles of Management I	3
	16

SECOND SEMESTER

S. S. 106 — Elementary Shorthand	2
or Acct. 102 — Elementary II	3
S. S. 108 — Elementary Typewriting	2
Eng. 102 — Composition	3
B.A. 115 — Mathematics of Business and Finance	3
Bio. 102 — Biological Science or	
Phys. 102 — Physical Science or	
Env. Sci. 102 — Space Science	3
Hist. 102 — World Civilization	3
P. E. 102 — Physical Education	0
P. E. 106 — Hygiene	1
	17-18

FOURTH SEMESTER

S. S. 208 — Advanced Shorthand	
or Acct. 112 — Intermediate II	3
S. S. 202 ¹ — Advanced Typewriting	1
Acct. 102 — Elementary II	
or Retailing Elective	3
Psy. 102 — Psychology	3
P. E. 104 — Physical Education	0
Ec. 102 ² — Principles II	3
B. A. 232 — Business Law	3
	15-16

SIXTH SEMESTER

Acct. 112 — Intermediate II	
or Retailing Elective ³	3
Soc. 102 — Sociology	
or P.S. 102 — Political Science II	3
Eng. 152 — World Literature	4
Ed. 202 — Educational Psychology	3
B.A. 252 — Principles of Management II	3
	16

¹ Students following accounting sequence need not take third and fourth semesters of typewriting.

² Two-year program students take S. S. 205 in semester 3 and Ec. 101 in semester 4.

³ Students who have already met required accounting and retailing courses would elect one course in both the fifth and sixth semesters, preferably one of the two should be in retailing to meet requirement for certification in retailing.

SEVENTH SEMESTER		EIGHTH SEMESTER	
S. S. 243 — Principles and Methods of Business Education	3	Ed. 330 — Secondary Education Elective ¹	12
S. S. 205 — Office Procedures and Machines	4		3
Phil. 101 — Introduction	3		
Mus. 101 — Introduction or F. A. 101 — Experiencing Art I or Th. Arts 101 — Approach to Theater	3		
B. A. 209 — Business Correspondence & Reports	3		
	16		15

Engineering

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

The first year of all curricula in engineering is the same. The second year will vary depending upon the student's choice of major engineering interest.

Experience has shown that students who have not had a minimum of four years of mathematics study in secondary school will usually require some pre-college summer course. The student may take the Pre-Calculus Mathematics (Math. 100) offered at Wilkes, or with the approval of the mathematics department take an equivalent course at some other college or university. Credit in this remedial course does not exempt the student from any required elective in his program.

Programs in each major field are described on the following pages.

¹ Students planning to teach in Pennsylvania should elect a course in American History for permanent certification.

Engineering

FRESHMAN YEAR COMMON TO ALL ENGINEERING PROGRAMS

FIRST SEMESTER		SECOND SEMESTER	
Math. 111 — Analysis I	4	Math. 112 — Analysis II	4
Chem. 201 — Introduction to the Principles of Chemistry	4	Chem. 202 — Chemical Equilibria	4
Eng. 101 — Composition	3	Phys. 201 — General Physics I	4
Engi. 107 — Engineering Graphics I	2	Eng. 102 — Composition	3
Liberal Arts Elective	3	Engi. 108 — Engineering Graphics II	2
P.E. 105 — Hygiene	1	P.E. 106 — Hygiene	1
P.E. 101 — Physical Education	0	P.E. 102 — Physical Education	0
	17		18

ELECTRICAL ENGINEERING

Second, third and fourth year requirements leading to a B.S. degree in electrical engineering.

THIRD SEMESTER		FOURTH SEMESTER	
Math. 211 — Intermediate Analysis I	4	Math. 212 — Intermediate Analysis II	4
Phys. 202 — General Physics II	4	Phys. 203 — General Physics III	3
E.E. 211 — Circuit Theory I	3	E.E. 212 — Circuit Theory II	4
M.E. 211 — Mechanics I. Statics	3	M.E. 212 — Mechanics II. Dynamics	3
Math. 267 — Introduction to Computer Programming I	3	Ma.E. 102 — Materials Science	3
	17	Eng. 131 — Speech	2
			18
FIFTH SEMESTER		SIXTH SEMESTER	
E.E. 231 — Electromagnetic Fields I	4	E.E. 232 — Electromagnetic Fields II	4
E.E. 251 — Electronic Circuits I	4	E.E. 252 — Electronic Circuits II	4
E.E. 271 — Physical Electronics	3	E.E. 272 — Solid State Devices	3
Math., Science or Engi. Electives	3	Math., Science or Engi. Electives	3
Liberal Arts Elective ¹	3-4	Liberal Arts Elective ¹	3-4
	17-18		17-18
SEVENTH SEMESTER		EIGHTH SEMESTER	
E.E. 331 — Energy Transmission and Radiation	3	E.E. 320 — Electromechanical Energy Conversion	4
E.E. 381 — Advanced Engineering Laboratory I	4	E.E. 382 — Advanced Engineering Laboratory II	4
Engi. 397 — Seminar	1	Engi. 397 — Seminar	1
Engineering or Science Elective	4	Engineering or Science Elective	3
Liberal Arts Elective ¹	6	Liberal Arts Elective ¹	6
	18		18

¹ English 151, 152 (Western World Literature) is a required elective.

MATERIALS SCIENCE ENGINEERING

Second, third and fourth year requirements leading to a B.S. degree in materials science engineering.¹

THIRD SEMESTER		FOURTH SEMESTER	
Math. 211 — Intermediate Analysis I	4	Math. 212 — Intermediate Analysis II	4
Phys. 202 — General Physics II	4	Phys. 203 — General Physics III	3
E.E. 211 — Circuit Theory I	3	M.E. 212 — Mechanics II. Dynamics	3
M.E. 211 — Mechanics I. Statics	3	Ma.E. 102 — Materials Science	3
Ec. 101 — Principles of Economics	3	Eng. 131 — Speech	2
		Liberal Arts Elective	3
	17		18
FIFTH SEMESTER		SIXTH SEMESTER	
E.E. 231 — Electromagnetic Fields I	4	Ma.E. 212 — X-Ray Diffraction	4
E.E. 251 — Electronic Circuits I	4	Ma.E. 242 — Physical Metallurgy	3
Ma.E. 211 — Crystallography	3	Chem. 342 — Intermediate Physical Chemistry	4
Chem. 341 — Elementary Physical Chemistry	4	Liberal Arts Elective	3
Math. or Engineering Elective	3	Math. or Science Elective	4
	18		18
SEVENTH SEMESTER		EIGHTH SEMESTER	
Ma.E. 321 — Crystal Growth and Defects	4	Ma.E. 322 — Phase Equilibria	3
Ma.E. 331 — Crystalline Anisotropy	3	Ma.E. 382 — Materials Engineering Instrumentation Laboratory	3
Chem. 221 — Inorganic Quantitative Analysis	4	Liberal Arts Electives ²	6
Liberal Arts Elective ²	3-4	Math. or Science Electives	6
Science Elective	3		
	17-18		18

¹ For freshman year see page 97.

² English 151, 152 (Western World Literature) is a required elective.

CIVIL ENGINEERING

Second year requirements for the two-year civil engineering program.¹

THIRD SEMESTER		FOURTH SEMESTER	
Math. 211 — Intermediate Analysis I	4	Math. 212 — Intermediate Analysis II	4
Phys. 202 — General Physics II	4	Phys. 203 — General Physics III	3
M.E. 211 — Mechanics I. Statics	3	M.E. 212 — Mechanics II. Dynamics	3
C.E. 103 — Plane Surveying	3	C.E. 104 — Route Surveying	4
Liberal Arts Elective	3	Ma.E. 102 — Materials Science	3
	17		17

CHEMICAL ENGINEERING

Second year requirements for the two-year chemical engineering program.¹

THIRD SEMESTER		FOURTH SEMESTER	
Math. 211 — Intermediate Analysis I	4	Math. 212 — Intermediate Analysis II	4
Phys. 202 — General Physics II	4	Phys. 203 — General Physics III	3
M.E. 211 — Mechanics I. Statics	3	M.E. 212 — Mechanics II. Dynamics	3
Chem. 221 — Inorganic Quantitative Analysis	4	Chem. 232 — Organic Chemistry I	4
Liberal Arts Elective	3	Ma.E. 102 — Materials Science	3
	18		17

MECHANICAL ENGINEERING

Second year requirements for the two-year mechanical engineering program.¹

THIRD SEMESTER		FOURTH SEMESTER	
Math. 211 — Intermediate Analysis I	4	Math. 212 — Intermediate Analysis II	4
Phys. 202 — General Physics II	4	Phys. 203 — General Physics III	3
M.E. 211 — Mechanics I. Statics	3	M.E. 212 — Mechanics II. Dynamics	3
E.E. 211 — Circuit Theory I	3	M.E. 111 — Manufacturing Processes	3
Liberal Arts Elective	3	Ma.E. 102 — Materials Science	3
	17		16

¹ For freshman year see page 97.

Mathematics

The B.S. curriculum provides for a greater concentration of advanced mathematics courses and enables students to take more physical science electives than is possible in the B.A. program.

It is highly recommended that prospective mathematics majors elect French, German, or Russian in secondary school. As a rule, three years of one of these languages is more desirable than two years or less of each of two different languages. Spanish is not acceptable toward fulfillment of the language requirement in this program.

Experience has shown that students who have not had a minimum of four years of mathematics study in secondary school will usually require some pre-college summer course. The student may take the Pre-Calculus Mathematics (Math. 100) offered at Wilkes, or with the approval of the department take an equivalent course at some other college or university. Credit in this remedial course does not exempt the student from any required elective in his program.

Students intending to pursue graduate studies in mathematics should elect Math. 314, 341, 432, and 442. Those contemplating careers in industry are advised to take Math. 267-268 as early as possible in their programs. Students who foresee possible change to the B.A. program in order to prepare themselves as secondary or elementary school teachers are advised to elect Psy. 101-102 in their freshman year.

The following program lists the sequence of course requirements for the B.S. degree in Mathematics and the semesters in which they should normally be taken.

The first two years of the B.S. program are identical to those for the B.A. degree given on page 83.

FIFTH SEMESTER		SIXTH SEMESTER	
Math. 311 — Functions of a Real Var. I	3	Math. 312 — Functions of a Real Var. II	3
Math. 331 — Introduction to Abstract Algebra I	3	Math. 334 — Linear Algebra	3
Hist. 101 — World Civilization	3	Hist. 102 — World Civilization	3
Electives	6-9	Electives	6-9
	15-18		15-18
SEVENTH SEMESTER		EIGHTH SEMESTER	
Electives ¹	15-18	Electives ¹	15-18

¹ Must include each semester at least six hours of mathematics courses numbered above 222.

Medical Technology

The American Society of Clinical Pathologists and the American Society of Medical Technologists recommend certain requirements for a program of training leading to a degree in medical technology. The curriculum offered at Wilkes College follows these recommendations and is presented below. The final year in this program is taken in hospitals approved for such training by the American Society of Clinical Pathologists.

FIRST SEMESTER		SECOND SEMESTER	
Bio. 103 — General Biology	4	Bio. 104 — General Biology	4
Chem. 201 — Introduction	4	Chem. 202 — Chemical Equilibria	4
Eng. 101 — Composition	3	Eng. 102 — Composition	3
Math 111 — Analysis I ¹	4	Math. 112 — Analysis II ¹	4
P.E. 101 — Physical Education	0	P. E. 102 — Physical Education	0
P. E. 105 — Personal Hygiene	1	P. E. 106 — Personal Hygiene	1
	16		16
THIRD SEMESTER		FOURTH SEMESTER	
Bio. 115 — Anatomy & Physiology	4	Bio. 116 — Anatomy & Physiology	4
Chem. 221 — Inorganic Quantitative Analysis	4	Chem. 232 — Organic Chemistry	4
Eng. 151 — World Literature	4	Eng. 152 — World Literature	4
Hist. 101 — World Civilization	3	Hist. 102 — World Civilization	3
For. Lang. 101 — Elementary	3	For. Lang. 102 — Elementary	3
P.E. 103 — Physical Education	0	P.E. 104 — Physical Education	0
	18		18
FIFTH SEMESTER		SIXTH SEMESTER	
Bio. 311 — Bacteriology	4	Bio. 312 — Bacteriology	4
Bio. 204 — Microtechnique	3	Elective	3
Phys. 105 — Introductory Physics	4	Phys. 106 — Introductory Physics	4
For. Lang. 103 — Intermediate	3	For. Language. 104 — Intermediate	3
Ec., Psy., P.S., Soc. 101	3	Ec., Psy., P.S., Soc. 102	3
	17		17
SEVENTH SEMESTER ²		EIGHTH SEMESTER ²	
Clinical Chemistry	13 weeks	Haematology & Blood Bank	12 weeks
Microbiology	8 weeks	Histology	6 weeks
Urinalysis	4 weeks	Serology	7 weeks

¹ Students who have a math deficiency may register in a lower level math course with the permission of their adviser.

² To be taken at an approved school of medical technology. Fee \$50 each semester.

Music Education¹

FIRST SEMESTER		SECOND SEMESTER	
Eng. 101 — Composition	3	Eng. 102 — Composition	3
Bio. 101 — Biological Science or Phys. 101 — Physical Science or Env. Sci. 101 — Earth Science	3	Bio. 102 — Biological Science or Phys. 102 — Physical Science or Env. Sci. 102 — Space Science	3
Mus. 105 — Theory of Music	5	Mus. 106 — Theory of Music	5
Mus. Ed. 101 — Clarinet Class or Mus. Ed. 103 — Brass Class	2	Mus. Ed. 102 — Clarinet Class or Mus. Ed. 104 — Brass Class	2
Hist. 101 — World Civilization	3	Hist. 102 — World Civilization	3
Applied Music ²	1	Applied Music ²	1
Band, Orchestra, Chorus	1/2	Band, Orchestra, Chorus	1/2
P. E. 101 — Physical Education	0	P. E. 102 — Physical Education	0
P. E. 105 — Hygiene	1	P. E. 105 — Hygiene	1
<hr/> 18 1/2		<hr/> 18 1/2	
THIRD SEMESTER		FOURTH SEMESTER	
Eng. 151 — World Literature	4	Eng. 152 — World Literature	4
Mus. Ed. 101 — Clarinet Class or Mus. Ed. 103 — Brass Class	2	Mus. Ed. 102 — Clarinet Class or Mus. Ed. 104 — Brass Class	2
Mus. 107 — Theory of Music	5	Mus. 108 — Theory of Music	5
Mus. 109 — History of Music	3	Mus. 110 — History of Music	3
Applied Music ²	1	Applied Music ²	1
Psy. 101 — Psychology	3	Psy. 102 — Psychology	3
Band, Orchestra, Chorus	1/2	Band, Orchestra, Chorus	1/2
P. E. 103 — Physical Education	0	P. E. 104 — Physical Education	0
<hr/> 18 1/2		<hr/> 18 1/2	
FIFTH SEMESTER		SIXTH SEMESTER	
Ed. 201 — Introduction	3	Ed. 202 — Educational Psychology	3
Ec. 101 — Principles I or P. S. 101 — Political Science I or Soc. 101 — Sociology	3	Ec. 102 — Principles II or P. S. 102 — Political Science II or Soc. 102 — Sociology	3
Mus. Ed. 105 — Woodwind Class	2	Mus. Ed. 106 — Brass Class	2
Mus. Ed. 209 — Conducting	2	Mus. Ed. 210 — Conducting	2
Mus. Ed. 121 — Violin Class	2	Mus. Ed. 122 — Viola and String Methods	2
Mus. Ed. 201 — Elementary School Methods	2	Mus. Ed. 202 — Secondary School Methods	2
Applied Music ²	1	Applied Music ²	1
Band, Orchestra, Chorus	1/2	Band, Orchestra, Chorus	1/2
Mus. 111 — Piano Class	2	Mus. 112 — Piano Class	2
<hr/> 17 1/2		<hr/> 17 1/2	

¹ There is a music fee of \$10 per semester for all music and music education majors.² Private instruction. The fee for this instruction is in addition to the regular tuition charge.

SEVENTH SEMESTER		EIGHTH SEMESTER	
Mus. 215 — Instrumentation	2	Mus. 216 — Arranging	2
Mus. Ed. 127 — Voice Class	2	Mus. Ed. 128 — Voice Class	2
Mus. Ed. 123 — Violoncello and Bass	2	Mus. Ed. 125 — Percussion Class Methods	2
Mus. Ed. 340 — Professional Semester in Music Education	8	Applied Music ¹	1
Applied Music ¹	1	Band, Orchestra, Chorus	1/2
Band, Orchestra, Chorus	1/2	Elective	6
Mus. 113 — Piano Class or elective	2-3	Mus. 114 — Piano Class or elective	2-3
<hr/> 17 1/2-18 1/2		<hr/> 15 1/2-16 1/2	

Nursing Education

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

Wilkes College is cooperating with Albright College in offering a degree in Nursing Education to registered nurses in Reading, Pa. Academic credits earned at Albright College may be credited toward the B. S. degree in Nursing Education from Wilkes College. In order to receive the degree from Wilkes College the student must take a minimum of 15 credit hours on the Wilkes Campus. Students participating in this cooperative program should seek assistance from the chairman of the Nursing Education Department at Wilkes in planning their curriculum.

FIRST SEMESTER		SECOND SEMESTER	
Eng. 101 — Composition	3	Eng. 102 — Composition	3
Hist. 101 — World Civilization	3	Hist. 102 — World Civilization	3
Bio. 103 — General Biology or Math. 101 — Fundamentals or Phys. 101 — Physical Science or Env. Sci. 101 — Earth Science	3-4	Bio. 104 — General Biology or Math. 102 — Fundamentals or Phys. 102 — Physical Science or Env. Sci. 102 — Space Science	3-4
F. A. 101 — Experiencing Art I or Mus. 101 — Introduction or Th. Arts 101 — Approach to Theater	3	N. E. 104 — Community Resources	2
Soc. 101 — Sociology or Psy. 101 — Psychology	3	Soc. 102 — Sociology or Psy. 102 — Psychology	3
N. E. 101 — Foundations	2	N. E. 106 — Supervision	2
<hr/> 17-18		Elective (optional) ²	2-3
		<hr/> 16-19	

¹ Private instruction. The fee for this instruction is in addition to the regular tuition charge.² If the Bio. 104 laboratory course is taken, the elective will not be allowed.

THIRD SEMESTER

Eng. 151 — World Literature	4
Phil. 101 — Introduction	3
Soc. 101 — Sociology or Psy. 101 ¹ — Psychology	3
Ed. 351 — Educational Measurements	2
N. E. 107 — Principles & Methods	2
N. E. 108 — Techniques	1
Elective	2-3
<hr/>	
15-18	

FOURTH SEMESTER

Eng. 152 — World Literature	4
Phil. 102 — Logic	3
Soc. 102 — Sociology or Psy. 102 ¹ — Psychology	3
N. E. 102 — Trends in Nursing	2
N. E. 112 — Field Experience	4
Elective	2-3
<hr/>	
16-19	

Physics

The B.S. curriculum in physics is designed to provide a thorough grounding in the fundamentals of this rapidly-expanding science, as well as to acquaint the student with the current frontiers of knowledge and research. Upon completion of the requirements for the degree, the student will be well prepared to proceed to graduate study leading to an advanced degree or to undertake an industrial position.

Students planning to major in physics should check the mathematics requirements on page 85.

FIRST SEMESTER

Math. 111 — Analysis I	4
Eng. 101 — Composition	3
Hist. 101 — World Civilization	3
Phys. 201 — General Physics I	4
P.E. 105 — Hygiene	1
P. E. 101 — Physical Education	0
<hr/>	
15	

SECOND SEMESTER

Math. 112 — Analysis II	4
Eng. 102 — Composition	3
Hist. 102 — World Civilization	3
Phys. 202 — General Physics II	4
P.E. 106 — Hygiene	1
P. E. 102 — Physical Education	0
<hr/>	
15	

THIRD SEMESTER

Math. 211 — Intermediate Analysis I	4
Phys. 203 — General Physics III	3
Phys. 231 — Electronics	3
Ger. 101 ² — Elementary	3
Chem. 201 — Introduction to the Principles of Chemistry	4
P. E. 103 — Physical Education	0
<hr/>	
17	

FOURTH SEMESTER

Math. 212 — Intermediate Analysis II	4
Phys. 230 — Optics and Light	4
Phys. 240 — Thermodynamics	3
Ger. 102 ² — Elementary	3
Chem. 202 — Chemical Equilibria	4
P. E. 104 — Physical Education	0
<hr/>	
18	

¹ P. S. 101, P. S. 102, Ec. 101, Ec. 102 may be substituted as electives.

² Russian may be substituted for German with the approval of the adviser.

FIFTH SEMESTER

Math. 361 — Advanced Calculus I	3
Phys. 331 — Electricity & Magnetism	4
Phys. 311 — Mechanics	3
Ger. 103 ¹ — Intermediate	3
Eng. 151 — World Literature	4
<hr/>	
17	

SIXTH SEMESTER

Math. 362 — Advanced Calculus II	3
Phys. 332 — Electricity & Magnetism	4
Phys. 312 — Mechanics	3
Ger. 105 ¹ — Scientific	3
Eng. 152 — World Literature	4
<hr/>	
17	

SEVENTH SEMESTER

Phys. 361 — Atomic Physics	4
Advanced Math. Elective	3
Eng. 131 — Fundamentals of Speech	2
Electives ²	6-8
<hr/>	
15-17	

EIGHTH SEMESTER

Phys. 380 — Nuclear Physics	4
Advanced Math. Elective	3
Electives ²	8-10
<hr/>	
15-17	

¹ Russian may be substituted for German with the approval of the adviser.

² Students contemplating graduate study in Physics should elect Phys. 351 — Quantum Mechanics.

Courses of Instruction

Description of Courses

**Conscience
at
Wilkes**

MAMA:

Child, when do you think is the time to love somebody the most; when they done good and made things easy for everybody? Well, then, you ain't through learning — because that ain't the time at all. It's when he's at his lowest and can't believe in hisself 'cause the world done whipped him so. When you starts measuring somebody, measure him right, child, measure him right. Make sure you done taken into account what hills and valleys he come through before he got to wherever he is.

LORRAINE HANSBERRY
A Raisin In The Sun (Act III)

Description of Courses

ACCOUNTING

Professor Rosenberg, chairman; Associate Professor Capin; Assistant Professors Curtis, P. Werner; Instructor Zavada.

Acct. 101. Elementary Accounting I

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

Three credits

Acct. 102. Elementary Accounting II

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

Prerequisite: Acct. 101.

Three credits

Acct. 111. Intermediate Accounting I

A comprehensive analysis of the accounting process and the financial statements. Intermediate problems pertaining to Cash, Receivables, Inventories, Current Liabilities, and Investments in Stocks. Class, two hours a week; laboratory, four hours a week.

Prerequisite: Acct. 102.

Three credits

Acct. 112. Intermediate Accounting II

A continuation of Intermediate Accounting I. Intermediate problems pertaining to Investments in Bonds and Funds, Plant and Equipment, Intangibles, Long-Term Liabilities, and Stockholders Equity; financial statement analysis and Fund and Cash Flow Reporting. Class, two hours a week; laboratory, four hours a week.

Prerequisite: Acct. 111.

Three credits

Acct. 201. Cost Accounting I

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

Prerequisite: Acct. 112, or approval of instructor.

Three credits

Acct. 202. Cost Accounting II

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

Prerequisite: Acct. 201, or approval of instructor.

Three credits

Acct. 221. Taxes I

The preparation of Federal income tax returns for individuals based on current law, regulations and court decisions; problems of inclusion and exclusion from income; gains and losses from sales and exchanges; allowable deductions. Class, two hours a week; laboratory, two hours a week.

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

Three credits

Acct. 222. Taxes II

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

Prerequisite: Acct. 221.

Three credits

Acct. 231. Auditing I

An analysis of modern auditing concepts involving staff organization, professional ethics and legal responsibility, internal control, audit programs, and working papers, and original record examination. Class, two hours a week; laboratory, two hours a week.

Prerequisite: Acct. 202.

Three credits

Acct. 232. Auditing II

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

Prerequisite: Acct. 231.

Three credits

Acct. 241. Advanced Accounting I

A comprehensive review of partnerships; special procedures and problems of installment sales, consignments, home office and branch relationships; introduction to accounting for business combinations and consolidations. Class, two hours a week; laboratory, two hours a week.

Prerequisite: Acct. 112.

Three credits

Acct. 242. Advanced Accounting II

A detailed analysis of the problems of consolidations; analysis of the procedure in accounting for bankruptcies, receiverships, estates and trusts, foreign exchange, and governmental units. Class, two hours a week; laboratory, two hours a week.

Prerequisite: Acct. 112 and permission of instructor.

Three credits

Acct. 252. Accounting Internship

This course provides a minimum of 240 hours of accounting in the office of a Certified Public Accountant.¹

Three credits

BIOLOGY

Professor Reif chairman; Professors Cohen, Michelini; Associate Professors Ogren, Kimball, Tappa, Mizianty; Assistant Professor Hayes, Acheson; Instructor Schonwetter.

Bio. 101-102. Biological Science

Biological Science is a survey course intended for students who take no other courses in biology. It presents the essential general

¹ Or the equivalent.

information about plants and animals, explains fundamental laws governing the biological world, and emphasizes their relationship to man. Class, three hours a week.

Three credits each semester

Bio. 103-104. General Biology

This course surveys both the plant and animal kingdoms, outlines the history of biology, the organization of matter, the structure of representative plants and animals, and the methods of classification. It considers the basic principles of physiology, genetics, embryology, evolution, and ecology. Lecture, three hours a week; laboratory, three hours a week. Fee: \$20 each course.

Four credits each semester

Bio. 111-112. General Botany

General Botany presents a broad consideration of the plant world. It includes the study of the fundamental principles of biology, emphasizing the structure, physiology, genetics, and ecology of plants. Class, two hours a week; laboratory, three hours a week. Fee: \$20 each course.

Three credits each semester

Bio. 113. Microbiology

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

Four credits

Bio. 115-116. Human Anatomy & Physiology

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

Four credits each semester

Bio. 201. Vertebrate Morphogenesis

Vertebrate Morphogenesis is a study of the development and general morphological characteristics of selected vertebrates. The taxonomy and evolution of Phylum Chordata will be emphasized. Lecture, two hours a week; laboratory, six hours a week. Fee: 20.

Prerequisite: Bio. 104.

Four credits

Bio. 202. Biology of Vertebrate Organs

Biology of Vertebrate Organs is a study of major vertebrate tissues and organs from the modern standpoints of cytology, development, function, regulation, and interrelationships. Lecture, two hours a week; laboratory, six hours a week. Fee: \$20.

Prerequisites: Bio. 201 and Chem. 221.

Four credits

Bio. 204. Microtechnique

Microtechnique embraces all methods of studying specimens with the microscope. The course also includes the study of normal tissues and organs. The laboratory work covers the technique of preparing microscopic slides. Lecture, one hour a week; laboratory, six hours a week. Fee: \$20.

Prerequisite: Bio. 116, or permission of instructor.

Three credits

Bio. 224. Biological Techniques

A laboratory course in the preparation of materials for use in the study of organisms. Included will be such procedures as are needed to prepare photographs, make microscope slides, accomplish field collecting and telemetry, and the production of drawings for publication. Three-hour practicum.

One credit

Bio. 311-312. Bacteriology

Bio. 311 is a general introduction, covering the morphology and growth of bacteria, sterilization, and applied uses of bacteria. It also includes a brief survey of other groups of microorganisms. The laboratory work covers techniques of staining, culturing, and

biochemical testing for the identification of bacteria. Class, two hours a week; laboratory, six hours a week. Fee: \$20.

Prerequisite: Bio. 104.

Four credits

Bio. 312 covers the relationship of bacteria to disease, immunity, serology, and the pathogenic organisms. Laboratory work continues with special stains, identification of unknowns, isolation of bacteria from natural sources, and techniques used in applied bacteriology. Class, two hours a week; laboratory, six hours a week. Fee: \$20.

Prerequisite: Bio. 311.

Four credits

Bio. 321. Genetics

Genetics is the study of the inheritance of normal characters and the variation of these characters in plants and animals. Laboratory work includes the study of genetic mechanisms in various botanical, animal, and microbial species. Class, three hours a week; laboratory, three hours a week. Fee: \$20.

Prerequisite: through Bio. 202, or permission of instructor.

Four credits

Bio. 322. Ecology

Ecology is the study of the relationship between organisms, singly and collectively, and their environments, including the biotic and physical factors of the environments. Class, two hours a week; laboratory and field trips, three hours a week. Fee: \$20.

Prerequisite: through Bio. 321, or permission of instructor.

Three credits

Bio. 331. Physiology

Physiology is the study of the physical and chemical activities characteristic of all living organisms. Laboratory work includes experiments involving living forms. Class, two hours a week; laboratory, six hours a week. Fee: \$20.

Prerequisite: through Bio. 322, Chem. 230, and Phys. 112, or permission of instructor.

Four credits

Bio. 332. Evolutionary Mechanisms

Evolutionary Mechanisms is a study of how new species of organisms are derived from previously existing species. Emphasis is placed upon the processes of organic evolution and the development of the evolutionary ideas. Lecture, three hours a week.

Prerequisite: Bio. 322 or permission of instructor.

Three credits

Bio. 395-396. Independent Research

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

Prerequisite: Approval of the department chairman is required.

One to three credits

Bio. 397. Seminar

Presentations and discussions of selected topics.

Prerequisite: Approval of the department chairman is required.

One to three credits. (Maximum of three credits per student.)

BUSINESS ADMINISTRATION

Professor Rosenberg, chairman; Professor R. Werner; Associate Professors Elliot, Farrar, Capin; Assistant Professors Gera, Engel, Chesler, Gurdin, Orlowski; Instructors Roberts, Wasileski, Kelly.

B.A. 114. Salesmanship

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

Prerequisite: approval of instructor.

Three credits

B.A. 115. Mathematics of Business and Finance

This course will include progressions, logarithms, per cent, interest, discounts, equation of value, annuities, sinking funds, depreciation, taxes, profit and loss.

Three credits

B.A. 209. Business Correspondence and Reports

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

Prerequisites: Eng. 102.

Three credits

B.A. 216. Advertising

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

Three credits

B.A. 220. Real Estate

The fundamentals of the real estate business, including consideration of titles, mortgages, leases, advertising, sale, purchase, development, and management of real property.

Prerequisite: Ec. 102.

Three credits

B.A. 222. Marketing

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

Prerequisite: Ec. 102.

Three credits

B.A. 225. Corporation Finance

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

Prerequisite: Ec. 102.

Three credits

B.A. 226. Investments

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

Prerequisite: B. A. 225.

Three credits

B.A. 231. Business Law—Introduction and Contracts

The foundation for all subjects in the field of business law. The nature, classification and sources of law. An introduction to the structure and functioning of the Federal and State Courts as agencies for enforcement of legal rights. A brief resume of the law of Torts and Crimes with reference to business problems. Examination of the essential elements of a contract under both the common law and the Uniform Commercial Code, the nature of contract rights, discharge of contracts and remedies for their breach.

Prerequisite: Ec. 102, or approval of instructor.

Three credits

B.A. 232. Business Law—Agency and Sales

A general study of the law of agency; its nature and creation, the rights and liabilities of principals, agents and third persons, and the termination of the agency. A study of the law of sales of goods, the transfer of title and risk of loss, warranties in sales, the duties and liabilities of the parties, remedies for breach, security interests in goods. A comparison of the uniform sales act with the sales article of the Uniform Commercial Code.

Prerequisite: B. A. 231.

Three credits

B.A. 233. Business Law—Partnerships and Corporations

The principles of law governing partnerships and corporations, with emphasis on the historical development of business enterprises. The law with respect to the formation, operation, internal relationships and dissolution of partnerships and corporations with particular reference to their dependency upon the law of agency. Rights

and duties of the partnership and corporate enterprise with respect to the government, the owners, and the public. Advantages and disadvantages of these forms of business activity.

Prerequisite: B. A. 231.

Three credits

B.A. 234. Business Law—Property

The law of real property, nature and types of interests in land. A discussion of deeds and their prerequisites. The rights and duties of the landowner to the public. Rights of the government versus rights of the landowner. The landlord-tenant relationship, the mortgagor-mortgagee relationship. Business crimes (crimes affecting property). The protection of personal and business property, tangible and intangible.

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

Three credits

B.A. 240. Property Insurance

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

Prerequisite: B.A. 232, or approval of instructor.

Three credits

B.A. 241. Life Insurance

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

Prerequisite: approval of instructor.

Three credits

B.A. 244. Time and Motion Study

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

Three credits

B.A. 251. Principles of Management I

Nature and evolution of management thought. Fundamental universal concepts covered: decision-making, policy formulation, planning, organizing, staffing, actuating, communicating, directing,

controlling, etc. Views management as a process of integrating knowledge developed by many disciplines. Social and ethical dimensions of the management process summarized.

Three credits

B.A. 252. Principles of Management II

Application of universal concepts of management. Emphasis on problems of production, sales, personnel, office, finance, organization. Viewpoint on relationship to overall operation of enterprise. Develops analytical abilities and decision-making skills. Case study method emphasized.

Prerequisite: B.A. 251.

Three credits

B.A. 395-396. Independent Research

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

Prerequisite: Approval of the department chairman is required.

One to three credits

B.A. 397. Seminar

Presentations and discussions of selected topics.

Prerequisite: Approval of the department chairman is required.

One to three credits. (Maximum of three credits per student.)

CHEMISTRY

Professor Rozelle, chairman; Associate Professors Salley, Swain, Bohning, Faut, Stine; Assistant Professor Labows; Instructor Buckman.

Chem. 105. General Chemistry

This course is intended for students who take no advanced courses in inorganic, physical, or analytical chemistry. It introduces some of the fundamental laws and theories of chemistry with emphasis on chemical composition. Atomic structure, chemical bonding, solutions, kinetic theory, equilibrium, and radioactivity are considered. Class, three hours a week; laboratory, three hours a week. Breakage deposit required. Laboratory fee: \$20.

Four credits

Chem. 106. Organic & Biological Chemistry

An introduction to the chemistry of carbon compounds and reactions of common functional groups with emphasis on the structures of carbohydrates, proteins and amino acids, steroids and nucleic acids. The laboratory will emphasize the techniques involved in the separation and identification of various classes of organic compounds. Lecture, three hours a week; laboratory, three hours a week. Breakage deposit required. Laboratory fee: \$20.

Prerequisite: Chem. 105 and permission of instructor.

Four credits

Chem. 201. Introduction to the Principles of Chemistry

Chemical periodicity and stoichiometry are emphasized. States of matter, atomic theory, and dynamic equilibrium are introduced. Class, three hours a week; laboratory, three hours a week. Breakage deposit required. Fee: \$20.00.

Four credits

Chem. 202. Chemical Equilibria

A study of the principles of chemical equilibria. Laboratory will involve theory and development of schemes of qualitative analysis with particular emphasis on the reactions of metallic elements. Class, three hours a week; laboratory, three hours a week. Breakage deposit required. Fee: \$20.00.

Prerequisite: Chem. 201.

Four credits

Chem. 212. Systematic Inorganic Chemistry

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

Prerequisite: Chem. 202, Math 112, or permission of instructor.

Four credits

Chem. 221. Inorganic Quantitative Analysis

An introduction to the theory and practice of typical analyses: volumetric, gravimetric, and instrumental. Class, two hours a week; laboratory, six hours a week. Breakage deposit required. Fee: \$20.00.

Prerequisite: Chem. 202, or permission of the instructor.

Four credits

Chem. 232. Organic Chemistry I

An introduction to the chemistry of carbon compounds through the reactions of common functional groups in aliphatic, alicyclic, aromatic and heterocyclic systems. Reaction pathways will be considered. Emphasis in laboratory will be placed on the development of fundamental techniques. Class, three hours a week; laboratory, three hours a week. Breakage deposit required. Fee: \$20.00.

Prerequisite: Chem. 221, or permission of the instructor.

Four credits

Chem. 233. Organic Chemistry II

A continuation of Chem. 230. Emphasis in laboratory is placed on advanced techniques and sequential syntheses. Class, three hours a week; laboratory, six hours a week. Breakage deposit required. Fee: \$20.00.

Prerequisite: Chem. 232.

Five credits

Chem. 235. Organic Chemistry IIa

A continuation of Chem. 230. Not open to B.S. chemistry majors. Class, three hours a week; laboratory, three hours a week. Breakage deposit required. Fee: \$20.00.

Prerequisite: Chem. 232.

Four credits

Chem. 261. History of Chemistry

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

Prerequisite: Completion of twenty chemistry credits.

One credit

Chem. 262. Chemical Literature

Discussion of the important sources of chemical information and experience in the use of *Chemical Abstracts*, *Beilstein*, and the chemical journals. Class, one hour a week.

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

One credit

Chem. 334. Organic Qualitative Analysis

A study of the systematic identification of organic compounds and mixtures utilizing classical and instrumental techniques. Class, one hour a week; laboratory, six hours a week. Breakage deposit required. Fee: \$20.00.

Prerequisite: Chem. 233.

Three credits

Chem. 341. Elementary Physical Chemistry

The first, second, and third laws of thermodynamics are emphasized. The topics of electrochemistry, chemical kinetics, the phase rule, and the states of matter are introduced. Class, three hours a week; laboratory, three hours a week. Breakage deposit required. Fee: \$20.00.

Prerequisite: Chem. 221, Math 211, Phys. 152, or permission of the instructor.

Four credits

Chem. 342. Intermediate Physical Chemistry

Electrochemistry, electrokinetic phenomena, kinetic molecular theory, Maxwell Boltzman distribution, chemical kinetics, and the states of matter are studied in detail. Quantum mechanics and radiochemistry are introduced. Class, three hours a week; laboratory, three hours a week. Breakage deposit required. Fee: \$20.00.

Prerequisite: Chem. 221, Math 211, Phys. 152, or permission of the instructor.

Four credits

Chem. 376. Advanced Analytical Chemistry

The theory and application of modern techniques and instrumental procedures, such as spectrophotometric, electro-analytical,

and chromatographic. Theory and practice of analysis of more complex materials. Class, two hours a week; laboratory, six hours a week. Breakage deposit required. Fee: \$20.00.

Prerequisite: Chem. 342.

Four credits

Chem. 352. Biochemistry

A study of the nature and metabolism of proteins, carbohydrates, lipids, and other physiological substances. Emphasis is placed on the mechanism of enzymatic catalysis. Class, three hours a week.

Prerequisite: Chem. 233, 235, or permission of the instructor.

Three credits

Chem. 395-396. Independent Research

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

Prerequisite: Approval of the department chairman is required.

One to three credits each semester.

Chem. 397. Seminar

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

Prerequisite: Approval of the department chairman is required.

One to three credits. (Maximum of three credits per student.)

Chem. 411. Systematic Inorganic Chemistry

Oxidation-Reduction, atomic structure, theory and application of the principles of chemical bonding, systematic study of properties related to extra-nuclear structure of atoms, coordination chemistry, acid-base phenomena, non-aqueous solvents, descriptive chemistry. Class, three hours a week.

Prerequisite: Chem. 342, or permission of the instructor.

Three credits

Chem. 431-432. Advanced Organic Chemistry

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

Three credits each semester

Chem. 440. Quantum Chemistry

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

Prerequisite: Chem. 342.

Three credits

ECONOMICS

Professor Rosenberg, chairman; Professor R. Werner; Associate Professors Elliot, Farrar; Assistant Professors DeYoung, Engel, Chesler, Orlowski.

Ec. 101. Principles of Economics I

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.

Three credits

Ec. 102. Principles of Economics II

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

Prerequisite: Ec. 101.

Three credits

Ec. 111. Economic History

A study of the development of economic institutions with emphasis on the historical roots and evolutionary development of our modern economy. Analysis of causes of development. Major stress is on institutions.

Three credits

Ec. 201. Money and Banking

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

Prerequisite: Ec. 102.

Three credits

Ec. 202. Theory of Money

Development of monetary theory. Liquidity preference and loanable funds theories of interest. Saving, investment, and income determination. Keynesian and neo-Keynesian analysis. The inflationary process. Exchange rates and international monetary mechanism.

Prerequisite: Ec. 201.

Three credits

Ec. 204. Consumer Credit

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

Prerequisite: approval of instructor.

Two credits

Ec. 212. Government and Business

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

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

Three credits

Ec. 217. Economics of Transportation

Problems and policies of railroads, buses, trucks, inland waterways, and air and ocean transportation; economic aspects of transportation and traffic management; use of rates and tariff; significance of transportation to society.

Prerequisite: Ec. 102.

Three credits

Ec. 222. The American Labor Movement

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

Prerequisite: Ec. 102.

Three credits

Ec. 223. Collective Bargaining

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

Prerequisite: Ec. 102.

Three credits

Ec. 225. International Trade

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

Prerequisite: Ec. 102.

Three credits

Ec. 227. Economic Geography of North America, Europe and the Soviet Union

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

Prerequisite: Ec. 102.

Three credits

Ec. 228. Economic Geography of Asia, Africa, and Latin America

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

Economics 227 is not a prerequisite.

Three credits

Ec. 229. Comparative Economic Systems

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

Prerequisite: Ec. 102 or approval of instructor.

Three credits

Ec. 230. Business Cycles

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

Prerequisite: approval of instructor.

Three credits

Ec. 231. Applied General Statistics

A course in statistical methods and their application. A collection and interpretation of statistical data, frequency distribution and measures of central tendency, fitting the normal curve, analysis of variance. Lecture, three hours; laboratory, two hours. Fee: \$10.

Prerequisite: approval of instructor.

Three credits

Ec. 232. Economic Statistics

A continuation of Economics 231. This course will include time-series analysis, construction of index numbers, methods of correlation analysis, multiple and partial correlation, and test of significance for samples; Chi-square test. Lecture, three hours; laboratory, two hours. Fee: \$10.

Prerequisite: Ec. 231.

Three credits

Ec. 236. Public Finance

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

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

Three credits

Ec. 241. Economic Analysis

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

Prerequisite: Ec. 102.

Three credits

Ec. 245. Consumer Economics

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

Prerequisite: Ec. 102.

Three credits

Ec. 395-396. Independent Research

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

Prerequisite: Approval of the department chairman is required.

One to three credits

Ec. 397. Seminar

Presentations and discussions of selected topics.

Prerequisite: Approval of the department chairman is required.

One to three credits. (Maximum of three credits per student.)

EDUCATION

Professor Hammer, chairman; Professor Jessee; Associate Professors West, Darte, J. Allen; Assistant Professors Siles, Barone, Fahmy; Instructors Johnson, Bellucci, J. Garber, Davis, Brand-schain.

Ed. 201. Introduction to Education

A study of the historical development of American education, the role of the school in American life, educational philosophies, educational organization and administration, school finance, school curricula, school personnel, and current issues in education.

Prerequisite: Sophomore standing.

Three credits

Ed. 202. Educational Psychology

A study of the principles of learning and the application of psychological principles in the practice of education.

Prerequisite: Psy. 102, Junior standing.

Three credits

Ed. 299. Principles of Elementary Education

A study of the historical development and organization of the American elementary school.

Prerequisite: Ed. 201, 202.

Three credits

Ed. 300. Professional Semester in Elementary Education

Provides classwork and practical experience to prepare students for elementary school teaching. Fee \$20.

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

Prerequisite: Ed. 299, Math 104.

Fifteen credits

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

Ed. 301. The Teaching of Reading

An introduction to the teaching of reading in the elementary grades.

Two credits

Ed. 302. Methods and Materials in Elementary School Arithmetic

A study of curriculum content and teaching procedures in elementary school arithmetic.

Two credits

Ed. 303. Methods and Materials in Elementary School Science

A study of curriculum content and teaching procedures in elementary school science.

Two credits

Ed. 304. Methods and Materials in Elementary School Social Studies

A study of curriculum content and teaching procedures in elementary school history, geography, and government.

Two credits

Ed. 305. Multi-Sensory Techniques in Elementary School Teaching

A study of the use of multi-sensory teaching aids in the elementary school classroom.

One credit

Ed. 306. Student Teaching in the Elementary School

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

Six credits

Ed. 320. Professional Semester in Fine Arts Education

Provides classwork and practical experience to prepare students for the teaching of art in elementary and secondary schools. Fee \$20.

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

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

Prerequisite: Ed. 202.

Fourteen credits

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

Ed. 321. Art Curriculum

A study of the organization of teaching materials for most effective use in the art curriculum.

Three credits

Ed. 322. The Teaching of Art

A study of materials, techniques, and experiences in the public school art program; evaluation of past and present philosophies.

Three credits

Ed. 323. General Classroom Methods

A study of various instructional procedures used in public school classrooms.

One credit

Ed. 324. Multi-Sensory Techniques in the Teaching of Art

A study of the use of multi-sensory aids in the teaching of art in elementary and secondary schools.

One credit

Ed. 326. Student Teaching in Art

Students are assigned to work with experienced classroom teachers and art specialists. They observe and teach in elementary and secondary school classrooms. Opportunities are provided for them to participate in school-wide activities. Conferences are arranged with co-operating teachers and college supervisors.

Six credits

Ed. 330. Professional Semester in Secondary Education

Provides classwork and practical experience to prepare students for secondary school teaching. Fee: \$20.00.

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

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

Prerequisite: Ed. 202.

Twelve credits

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

Ed. 331. Principles of Secondary Education

A study of the historical development and organization of the American secondary school.

One and one-half credits

Ed. 332. Secondary School Curriculum

A study of the content and organization of the secondary school curriculum.

One and one-half credits

Ed. 333. Secondary School Teaching Methods

A study of various teaching procedures employed in the secondary school classroom.

One credit

Ed. 334. Multi-Sensory Techniques in Secondary School Teaching

A study of the use of multi-sensory teaching aids in the secondary school classroom.

One credit

Ed. 335. The Teaching of Reading in Secondary School Subjects

Instruction in reading methods in secondary school subjects.

One credit

Ed. 336. Student Teaching in the Secondary School

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

Six credits

Ed. 351. Educational Measurements

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

Prerequisite: Ed. 202.

Two credits

Ed. 352. Guidance

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

Prerequisite: Ed. 202.

Three credits

Ed. 353. Occupations

An introduction to occupational research as a part of the secondary school guidance program.

Prerequisite: Ed. 202.

Three credits

Ed. 354. Teaching Secondary School English

A study of the organization and presentation of curricular content in secondary school English courses. (Offered summers only)

Prerequisite: Twenty-four credits in English.

Three credits

Ed. 355. Teaching Secondary School Mathematics

Building of a program in secondary mathematics, and informal practice in teaching arithmetic, algebra, plane and solid geometry, trigonometry, and logarithms. (Offered summers only)

Prerequisite: Math 112.

Three credits

Ed. 356. Teaching Secondary School Science

A study of the organization and presentation of curricular content in secondary school science courses. (Offered summers only)

Prerequisite: Twenty-four credits in sciences other than Psychology.

Three credits

Ed. 357. Teaching Secondary School Social Studies

A study of the organization and presentation of curricular content in secondary school social studies courses. (Offered summers only)

Prerequisite: Twenty-four credits in social sciences other than Education.

Three credits

Ed. 360. Introduction to Educational Administration

A survey of the principles of educational administration at the federal, state and local levels. (Offered summers only)

Prerequisite: Ed. 201.

Two credits

ENGINEERING

Professor Donahoe; Associate Professor Thomas; Assistant Professors Nejib, Kaby, Bailey.

Engi. 107. Engineering Graphics I

Methods of solving engineering problems. Instruction in the use of the slide rule and mathematical tables. The use of drawing instruments, systems of representation such as orthographic, isometric, and oblique projections. Vector quantities and vector diagrams. Graphical mathematics. Monographs. Practicum, six hours a week. Fee: \$20.

Two credits

Engi. 108. Engineering Graphics II

A continuation of spatial relationships as represented by points, lines, planes, other surfaces and solids. Sections and conventions. The intersection of surfaces and solids. Transformation of coordinates. Practicum, six hours a week. Fee: \$20.

Two credits

Engi. 280. Industrial Training Program

Industrial and research experience gained concurrently with undergraduate studies through organized plant assignments with various companies and industries. (Offered during the summer.)

Prerequisite: Junior Standing.

Civil Engineering

C.E. 103. Plane Surveying

Lectures, recitations and problems on the theory and practice of plane and topographic surveying. Field exercises, including the

adjustment and use of surveying equipment including transit, levels, compass and tape for surveys of area, topography, profile, grading, excavating and the location of details. Interpretation of and mapping from field notes with attendant computations and the balancing of surveys. Emphasis on the application of surveying to engineering work in general. Practicum, seven hours a week. Fee: \$20.

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

Three credits

C.E. 104. Route Surveying

A study of the engineering and economic problems affecting the location of routes of communication. Lectures, recitations, field work and problems on the theory and use of simple horizontal, compound, reverse, spiral and vertical alignment curves; grades, cross sections, mass diagrams and earth work computations, grade crossing, right-of-way, and drainage problems. Solar observation to determine true bearing and azimuth. Class, two hours a week; practicum, six hours a week. Fee: \$20.

Prerequisite: C. E. 103.

Four credits

Electrical Engineering

E.E. 202. Electric and Magnetic Circuits

An introduction to Electrical Engineering. Sources of electrical energy. Basic treatment of electric and magnetic circuits. Steady state network theorems. Class, three hours per week.

Prerequisites: Phys. 151 and co-requisite Math. 126.

Three credits

E.E. 211. Circuit Theory I

Analysis of simple circuit models. Kirchoff's Law; v-i characteristics of network elements. Forced and natural components of response; natural frequencies, the complex frequency plane, resonance. Transfer functions and the roles of their poles and zeroes. The use of digital computer in solutions. Three hours lecture a week. Fee: \$20.

Prerequisites: Math 125, Phys. 150.

Three credits

E.E. 212. Circuit Theory II

Fourier series and its application. The Laplace transformation and evaluation of the inverse. Terminal behavior of linear networks. Impulse response; its calculation and its use in obtaining response to other excitations; the convolution integral. The sinusoidal steady state: plots, charts and loci that exhibit frequency dependence, impedance matching and transformers (Smith Charts). Feedback systems and stability. Introduction to random signal and noise; correlation functions and spectra. Three hours class and one three-hour discussion-laboratory a week. Fee: \$20.

Prerequisites: Phys. 151, E.E. 211.

Four credits

E.E. 231. Electromagnetic Fields I

Vector analysis. The concept of fields. Electrostatic forces images, potential and Gauss's law. Magnetostatic forces and Ampere's law. Dielectric and Magnetic media. Fields in conductors. Electric and magnetic circuit elements. Plane electromagnetic waves. Three hours class and one three-hour laboratory a week. Fee: \$20.

Prerequisites: Phys. 151, Math 212.

Four credits

E.E. 232. Electromagnetic Fields II

Differential form of Maxwell's equations. Electrostatics, magnetostatics and boundary condition problems in one- two- and three-space dimensions. Transverse electromagnetic waves; energy and power flow. Three hours class and one three-hour laboratory a week. Fee: \$20.

Prerequisite: E.E. 231.

Four credits

E.E. 251. Electronic Circuits I

The development of the operating principles and terminal characteristics of electronic devices, particularly semiconductor diodes and transistors. Amplifiers, oscillators and rectifiers at audio and radio frequencies. Three hours class and one three-hour laboratory a week. Fee: \$20.

Prerequisite: Phys. 151 or by special permission.

Four credits

E.E. 252. Electronic Circuits II

Application of electronic devices in detection, modulation, wave-shaping and switching circuits. Design consideration for small and large signals at audio and radio frequencies. The design of complete systems using such sub-systems. Three hours class and one three-hour laboratory a week. Fee: \$20.

Prerequisite: E.E. 251.

Four credits

E.E. 271. Physical Electronics

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

Prerequisite: Phys. 152.

Three credits

E.E. 272. Solid State Devices

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

Prerequisites: E.E. 231, E.E. 271.

Three credits

E.E. 311. Logic and Switching Circuits

Application of Boolean algebra to the design of combinational logic nets; minimization procedures. Analysis and synthesis of sequential switching circuits; clocked and asynchronous operation. Effects of microelectronic technology on logic design optimization. Fault masking by redundancy techniques.

Prerequisites: E.E. 251, E.E. 252.

Four credits

E.E. 312. Pulse and Timing Circuits

Tube, transistor circuit techniques and design for diversity of waveforms. Functions needed in pulse systems. Instrumentation and computers. Three hours class and one three-hour laboratory a week. Fee: \$20.

Prerequisite: E.E. 251, E.E. 252.

Four credits

E.E. 320. Electromechanical Energy Conversion

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

Prerequisites: E.E. 211, E.E. 231.

Four credits

E.E. 331. Energy Transmission and Radiation

Plane waves in various media; reflection and refraction, standing waves, waveguides, transmission lines, antennas and radiation. Principles of electrodynamics. Three hours lecture-discussion a week.

Prerequisite: E.E. 331; Senior standing.

Three credits

E.E. 342. Microwave Circuits and Devices

Matrix algebra techniques, reduction of waveguides and discontinuity problems to equivalent transmission line and network problems, obstacles as matching elements. Multiple waveguide junctions and small aperture coupling. Periodic structures. Electron ballistics and space-charge waves in electron beams. Properties and characteristics of TWT, BOW and cross-field devices. Three hours lecture a week.

Prerequisite: Senior standing.

Three credits

E.E. 362. Control Systems

Laplace and transformation theory. Introduction to the analysis and design of linear feedback control systems by means of locus and frequency response methods. Discussion of stability, transient and steady-state errors. Models and response analysis for automatic control purposes. Two hours class and one three-hour demonstration-laboratory a week. Fee: \$20.

Prerequisite: Senior standing.

Three credits

E.E. 381-382. Advanced Engineering Laboratory I, II

A study of properties and designs of various amplifiers and non-linear circuits. Microwave devices, VHF integrated circuits and the generation and modulation of coherent optical waves. The fabrication of semiconductor devices and integrated circuits. Thin film deposition techniques, solid-state diffusion and photolithographic applications and design and fabrication of integrated capacitor and resistor circuits. One hour lecture-discussion and two three-hour laboratory a week each semester. Fee: \$20.

Prerequisite: Senior standing.

Three credits each semester.

E.E. 390. Topics in Electrical Engineering

Selected topics in the field of electrical engineering. These may include one or more of the following: information theory, signals and noise, network synthesis, magnetic and non-linear circuits, direct energy conversion systems, cryogenics, electrodynamics, plasma physics, digital circuits and systems. Three hours lecture-discussion a week.

Prerequisite: Senior standing and special permission.

Three credits

E.E. 395-396. Independent Research

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

Prerequisite: Approval of the department chairman is required.

One to three credits

E.E. 397. Seminar

Presentations and discussions of selected topics.

Prerequisite: Approval of the department chairman is required.

One to three credits. (Maximum of three credits per student.)

Materials Engineering

Ma. E. 102. Materials Science

Introduction to the structure, properties and behavior of solid materials — metals, polymers and ceramics. The ionic, covalent and metallic bond, atomic packing, structure and imperfections. The thermodynamics and mechanical behavior of structures. Three hours class a week.

Prerequisite: Chem. 201.

Three credits

Ma. E. 211. Crystallography

Repetition theory and translational and rotational symmetry. Derivation of the crystal classes. Combination of symmetry operations involving reflections and inversions. The symmetrical plane and space lattices. The coordinate systems of crystallography and crystal forms. Practical determination of point-group symmetry. The algebra of operations. Space groups. Equivalent positions in space groups. The determination of space groups. Group theory and its application to point symmetries.

Three credits

Ma. E. 212. X-Ray Diffraction

X-rays and their properties. Directions and intensities of diffracted beams. Laue, Debye-Scherrer, Diffractometer, Rotating, Oscillating, Weissenberg and Precession Methods. Outline of crystal structure analysis. A one hour laboratory a week. Fee: \$20.

Prerequisite: Ma.E. 211.

Three credits

Ma. E. 242. Physical Metallurgy

Structure and properties of pure metals, constitution, structure, and properties of alloys, mechanical and thermal treatments of metals and alloys. Three hours lecture a week.

Prerequisite: Ma.E. 102.

Three credits

Ma. E. 321. Crystal Growth and Defects

A broad look at the important phenomena involved in the growth and perfection of crystalline solids. Vapor, melt, solution and gel growth methods, as well as defect thermodynamics will be studied. Three hours class and one three-hour laboratory a week. Fee: \$20.

Prerequisite: Chem. 342.

Four credits

Ma. E. 322. Phase Equilibria

Thermodynamics approach to phase equilibria, the phase rule, and polymorphism. Theory of alloy phases. Order-disorder phenomena. Binary and ternary phase diagrams and their application to Materials Science. Class, three hours.

Prerequisite: Chem. 342.

Three credits

Ma. E. 331. Crystalline Anisotropy

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

Three credits

Ma. E. 382. Materials Engineering Instrumentation Laboratory

The application of X-ray methods in Materials Engineering. X-ray spectrometers and spectrochemical analysis. Techniques for quantitative analysis. The Electron Probe and microanalysis. Techniques for quantitative analysis. Applications. Three hours class and one three-hour laboratory a week. Fee: \$20.

Prerequisite: Chem. 221.

Four credits

Ma. E. 390. Special Topics in Materials Engineering

Independent study and research for advanced students in the field of the major under the direction of a staff member. A research paper at a level significantly beyond a term paper is required. Fee: \$20.

Prerequisite: Approval of the department.

One to three credits

Ma. E. 395-396. Independent Research

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

Prerequisite: Approval of the department chairman is required.

One to three credits

Ma. E. 397. Seminar

Presentations and discussions of selected topics.

Prerequisite: Approval of the department chairman is required.

One to three credits. (Maximum of three credits per student.)

Mechanical Engineering

M.E. 111. Manufacturing Processes

Lectures, demonstrations by trips to industrial plants, instructional movies of the forming of metals and plastics by casting, rolling, pressing. Also methods of machining, and the functions performed by various machine tools on metals and plastics. Class, two hours a week; practicum, three hours a week. Fee: \$20.

Three credits

M.E. 211. Mechanics I. Statics

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

Prerequisite: Phys. 150, Math 111.

Co-requisite: Math 112.

Three credits

M.E. 212. Mechanics II. Dynamics

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.

Three credits

ENGLISH

Professor Fiester, chairman; Professor Rizzo; Associate Professor Groh; Assistant Professors Gutin, Kaska, Lord, DeArment, Terry, Coplan, Mistichelli, F. Allen, Heaman, Swartchild, Stephenson, Vanderhaar; Instructors Kish, Boyle, Molley, R. Roberts, Collins, Gold, Geist.

Eng. 101. Composition

Principles of exposition; collateral reading; writing of themes.

Three credits

Eng. 102. Composition

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

Prerequisite: Eng. 101.

Three credits

Eng. 131. Fundamentals of Speech¹

A basic course in the preparation and delivery of short speeches.

Two credits

Eng. 132. Argumentation & Debate¹

Training in the fundamentals of argumentation and debate. Practice in gathering and organizing evidence and supporting materials.

Two credits

Eng. 151. Western World Literature

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

Prerequisite: Eng. 102, or substitute in composition.

Four credits

¹ Credit for only one of the three courses, Eng. 131, Eng. 132, and Th. Arts 131, will be accepted toward graduation requirements in any degree program.

Eng. 152. Western World Literature

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

Prerequisite: Eng. 151.

Four credits

Eng. 201. Advanced Exposition

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

Prerequisite: Eng. 102.

Three credits

Eng. 203. Creative Writing

Training in the selection and use of materials for writing the short story; attention is also given to some poetic forms and to the writing of short plays.

Prerequisite: Eng. 102.

Three credits

Eng. 204. History of the English Language

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

Prerequisite: Eng. 152.

Three credits

Eng. 213. Chaucer

Study of Chaucer's life and major works, including *The Canterbury Tales* and *Troilus and Criseyde*.

Prerequisite: Eng. 152.

Three credits

Eng. 221. Shakespeare

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

Prerequisite: Eng. 152.

Three credits

Eng. 310. Medieval English Literature

A study of English literature to 1500, exclusive of Chaucer and the drama.

Prerequisite: Eng. 152.

Three credits

Eng. 320. Tudor Prose and Poetry

Study of English non-dramatic literature from 1485 to 1603.

Prerequisite: Eng. 152.

Three credits

Eng. 321. Early English Drama

Study of the drama from the tenth century to 1642; reading of plays by pre-Elizabethan and Elizabethan dramatists exclusive of Shakespeare.

Prerequisite: Eng. 152.

Three credits

Eng. 330. Milton and the Seventeenth Century

A study of the non-dramatic literature of the period with special emphasis on the poetry of John Milton.

Prerequisite: Eng. 152.

Three credits

Eng. 341. Restoration & Eighteenth Century Drama

Study of the drama from 1660 to 1780.

Prerequisite: Eng. 152.

Three credits

Eng. 343. The Eighteenth Century

The chief poets and essayists of the eighteenth century. Includes Swift, Pope, and Johnson.

Prerequisite: Eng. 152.

Three credits

Eng. 345. Early English Novel

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

Prerequisite: Eng. 152.

Three credits

Eng. 354. Romantic Prose and Poetry

Study of Wordsworth, Coleridge, Shelley, Keats, and Byron, with related prose writers of the Romantic Period.

Prerequisite: Eng. 152.

Three credits

Eng. 360. Victorian Prose and Poetry

Readings in Tennyson, Browning, Arnold, and other significant writers of the Victorian Age.

Prerequisite: Eng. 152.

Three credits

Eng. 366. Later English Novel

The major novelists of the nineteenth and early twentieth centuries.

Prerequisite: Eng. 152.

Three credits

Eng. 370. Modern Poetry

Study of the major English and American poetry of the Twentieth Century.

Prerequisite: Eng. 152.

Three credits

Eng. 372. Modern Novel

Study of the major English and American novels of the Twentieth Century.

Prerequisite: Eng. 152.

Three credits

Eng. 374. Modern Drama

Study of important dramatists, European and American, from the time of Ibsen.

Prerequisite: Eng. 152.

Three credits

Eng. 381. American Literature I

A study of American literature to the Civil War.

Prerequisite: Eng. 152.

Three credits

Eng. 382. American Literature II

A study of American literature from the Civil War to the present time.

Prerequisite: Eng. 152.

Three credits

Eng. 395-396. Independent Research

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

Prerequisite: Approval of the department chairman is required.

One to three credits

Eng. 397. Seminar

Presentations and discussions of selected topics.

Prerequisite: Approval of the department chairman is required.

One to three credits. (Maximum of three credits per student.)

Journalism

Jour. 101. Journalism

A beginner's course in gathering and writing news. Topics include: definition of news, writing leads and building the story, law of libel, and news sources. Students make comparative study of and report on representative papers of the United States, both dailies and weeklies. There is constant practice in writing, with weekly news assignments.

Three credits

Theater Arts

Th. Arts 101. Approach to Theater

Attention will be directed to the importance of the dramatic imagination in reading and viewing plays, with the objective of developing a critical appreciation of the theater. Emphasis will be on forms of the play, structure of the playhouse, type of audience, and influence of society on theater of various ages, from pre-Shakespearean to the present.

Three credits

Th. Arts 131. Speech for the Stage

Students will receive instruction and experience in diction, delivery, interpretation. Classroom exercises will be assigned. This course is designed for those students especially interested in the theater and may be substituted for Eng. 131 or 132. Credit toward graduation requirements in any degree program may be granted for one speech course only.

Two credits

Th. Arts 201. Stagecraft

The student will study concepts and principles in dramatic writing and staging with special reference to changes in the physical plant, in methods of acting, and in play writing that affect the modern theater. Each student must assist in the production of at least one play in the theater. Class and workshop.

Three credits

Th. Arts 202. Production

Students will receive instruction and experience in the use and operation of stage and shop equipment. Each student must participate in the production of a Wilkes College play or musical. Class and workshop.

Three credits

Th. Arts 203. Directing: Fundamentals

The course deals with play selection; the practical use of the stage; blocking; interpretation of a role; relation of performer and audience. There will be presentation by individual class members of exercises and scenes from plays, to demonstrate stage picturization, dialogue, and movement. Each student must attend rehearsals, assist in the production, and write an analysis of a play or musical performed at the college. Class and workshop.

Three credits

Th. Arts 395-396. Independent Research

Independent study and research under professional supervision for students interested in educational theater.

One to three credits each semester

FINE ARTS

Associate Professor Colson, chairman; Assistant Professors P. Richard, D'Vorzon, Fuller, Jacobs, Simon.

FA 101. Experiencing Art I

Two and three dimensional studio work is planned for exploration of the creative process in a variety of media. Part of the general education program, this course is open to all students; no art experience is necessary. Lecture, three hours.

Three credits

FA 102. Experiencing Art II

A continuation of FA 101.

Prerequisite: FA 101.

Three credits

FA 201. Color and Design

A study of color systems which includes their physical, psychological, and sociological properties. Lecture, two hours; studio, two hours.

Prerequisite: FA 102. or equivalent.

Three credits

FA 202. Drawing and Composition

An introductory course which explores the potential of line, form, space, and texture with a variety of media. Studio problems include figure drawing, landscape, still life, and non-objective organization. Lecture, two hours; studio, two hours.

Prerequisite: FA 201.

Three credits

FA 204. Water Color Painting

A basic course in transparent water color painting. Lecture, two hours; studio, two hours.

Prerequisite: FA 202

Three credits

FA 203. Oil Painting I

An introductory course; no art experience is necessary. Lecture, two hours; studio, two hours.

Three credits

FA 205. Oil Painting II

Increased emphasis is placed in the development of a more personal style and technique. Lecture, two hours; studio, two hours.

Prerequisite: FA 203.

Three credits

FA 206. Graphics

A study of graphic expression including silkscreen, linoleum block, and wood block printing; etching; and lithography. Lecture, two hours; studio, two hours.

Prerequisite: Permission of instructor.

Three credits

FA 210. Sculpture

The study of traditional and contemporary approaches to sculpture.

Three credits

FA 211. Modeling & Three Dimensional Construction

An introductory course in three-dimensional expression; various materials are employed for experimentation with realistic and non-realistic forms. Lecture, two hours; studio, two hours.

Prerequisite: FA 102.

Three credits

FA 212. Ceramics

Students explore the making of pottery by solid, coil, slab, casting, wheel, and primitive techniques; they experiment with a variety of methods for surface decoration including slip, engobe, sgraffito, and underglaze. Lecture, two hours; studio, two hours.

Prerequisite: Permission of instructor.

Three credits

FA 213. Metalwork and Jewelry

A course in basic metalwork and jewelry techniques and design.
Lecture, two hours; studio, two hours.

Prerequisite: Permission of instructor.

Three credits

FA 223. History of Art I

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

Three credits

FA 224. History of Art II

History of art from the Renaissance through the nineteenth century.

Prerequisite: FA 223.

Three credits

FA 226. History of Modern Art

A study of twentieth century art forms.

Three credits

FA 231. Contemporary Design

A study of man's visual expression as conditioned by materials, technology, form, and function.

Two credits

FA 311. Senior Exhibit

A study of exhibition techniques climaxed by a showing of the student's work. Required of all Fine Arts majors in either the fall or spring semester of their senior year. Studio, two hours.

Prerequisite: Permission of instructor.

Two credits

FA 332. Studio Problems

Provides advanced study and research for Fine Arts students.
Lecture, two hours.

Prerequisite: Permission of instructor.

Two credits

FA 395-396. Independent Research

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

Prerequisite: Approval of the department chairman is required.

One to three credits

FA 397. Seminar

Presentations and discussions of selected topics.

Prerequisite: Approval of the department chairman is required.

One to three credits. (Maximum of three credits per student.)

FOREIGN LANGUAGES (Modern)

Associate Professor Disque; Assistant Professors Ribas, deCubas, A. Belic, Marban; Instructors Sweeney, Serzan, Miller, Lovette, L. Belic, Lekstrom, Steinbrecher.

French

Fr. 101. Elementary French

Introduction to French grammar; practice in reading, writing, and speaking the language. Students presenting two or more units from high school in French will not be granted credit for this course.

Three credits

Fr. 102. Elementary French

Continuation of Fr. 101. Students presenting two or more units from high school in French will not be granted credit for this course.

Prerequisite: Fr. 101 or the equivalent.

Three credits

Fr. 203. Intermediate French

Review of grammar; practice in oral and written French; selected readings of modern French prose.

Prerequisites: Fr. 102 or the equivalent.

Three credits

Fr. 204. Intermediate French

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

Prerequisite: Fr. 203 or the equivalent.

Three credits

Fr. 205. Technical French

Intensive practice in translating. A course designed for students who wish to be able to read material in French in their particular fields of interest.

Prerequisite: Fr. 203 or the equivalent.

Three credits

Fr. 206. French Conversation

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

Prerequisite: Fr. 204 or the equivalent.

Three credits

Fr. 301-302. Survey of French Literature

A survey of the evolution of French literature from the Middle Ages to the present, with stress on general ideas, literary genres, and outstanding writers of each century. Reading of representative selections from different periods of French literature.

Prerequisite: Fr. 204 or the equivalent.

Three credits each semester

Fr. 303. French Literature of the Seventeenth Century

Study of classicism and the outstanding writers of the seventeenth century.

Prerequisite: Fr. 301-302 or the equivalent.

Three credits

Fr. 305. French Literature of the Eighteenth Century

Study of the literature and thought in the eighteenth century, with special emphasis on Montesquieu, Diderot, Voltaire, and Rousseau.

Prerequisite: Fr. 301-302 or the equivalent.

Three credits

Fr. 306. French Literature of the Nineteenth Century

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

Prerequisite: Fr. 301-302 or the equivalent.

Three credits

Fr. 308. Contemporary French Drama

The development of modern drama from the latter half of the nineteenth century to the present.

Prerequisite: Fr. 301-302 or the equivalent.

Three credits

Fr. 395-396. Independent Research

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

Prerequisite: Approval of the department chairman is required.

One to three credits

Fr. 397. Seminar

Presentations and discussions of selected topics.

Prerequisite: Approval of the department chairman is required.

One to three credits. (Maximum of three credits per student.)

German

Ger. 101. Elementary German

Introduction to German grammar; practice in reading, writing, and speaking the language. Students presenting two or more units from high school in German will not be granted credit for this course.

Three credits

Ger. 102. Elementary German

Continuation of German 101. Reading of easy prose and poetry. Some stress on German culture, life, and customs. Students presenting two or more units from high school in German will not be granted credit for this course.

Three credits

Ger. 203. Intermediate German

Emphasis on difficult grammatical construction and idioms. Reading of prose; practice in speaking and writing German.

Prerequisite: Ger. 102 or equivalent.

Three credits

Ger. 204. Intermediate German

Continuation of Ger. 203. Rapid reading of German works representative of German life and history; practice in writing and speaking German.

Prerequisite: Ger. 203 or equivalent.

Three credits

Ger. 205. Scientific German

Reading of selections from scientific German.

Prerequisite: Ger. 203 or equivalent.

Three credits

Ger. 206. German Conversation

Emphasis laid on speaking, with drill in the colloquial vocabulary. Use of records and language laboratory to acquire fluency in speaking German.

Prerequisite: Ger. 204 or equivalent.

Three credits

Ger. 301-302. Survey of German Literature

A survey of the literature of the important periods from the beginning to 1932.

Prerequisite: Ger. 204 or equivalent.

Three credits each semester

Ger. 303. Goethe

Reading and interpretation of selected works of Goethe. Lectures and individual reports.

Prerequisite: Ger. 301-302 or equivalent.

Three credits

Ger. 304. Schiller

Poet of German idealism.

Prerequisite: Ger. 301-302 or equivalent.

Three credits

Ger. 305. Nineteenth Century German Drama

The German drama of the nineteenth century from Ludwig Tieck to Gerhart Hauptmann. Lectures and reports on the literary and cultural history of the times.

Prerequisite: Ger. 301-302 or equivalent.

Three credits

Ger. 306. Modern German Short Story

The modern German short story from naturalism to the present. Individual reports; lectures on the cultural and literary history of the period.

Prerequisite: Ger. 301-302 or equivalent.

Three credits

Ger. 395-396. Independent Research

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

Prerequisite: Approval of the department chairman is required.

One to three credits

Ger. 397. Seminar

Presentations and discussions of selected topics.

Prerequisite: Approval of the department chairman is required.

One to three credits. (Maximum of three credits per student.)

Spanish

Sp. 101. Elementary Spanish

Introduction to Spanish grammar; practice in reading, writing, and speaking the language. Students presenting two or more units from high school in Spanish will not be granted credit for this course.

Three credits

Sp. 102. Elementary Spanish

Continuation of Spanish 101. Students presenting two or more units from high school in Spanish will not be granted credit for this course.

Prerequisite: Sp. 101 or equivalent.

Three credits

Sp. 203. Intermediate Spanish

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

Prerequisite: Sp. 102 or equivalent.

Three credits

Sp. 204. Intermediate Spanish

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

Prerequisite: Sp. 203 or equivalent.

Three credits

Sp. 205. Commercial Spanish

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

Prerequisite: Sp. 203 or equivalent.

Three credits

Sp. 206. Spanish Conversation

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

Prerequisite: Sp. 204 or equivalent.

Three credits

Sp. 208. Spanish American Culture

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

Prerequisite: Sp. 203 or equivalent.

Three credits

Sp. 301-302. Survey of Spanish Literature

A survey of the evolution of Spanish literature from the Middle Ages to the present, with stress on general ideas, literary genres, and outstanding writers of each century. Reading of representative selections from different periods of Spanish literature.

Prerequisite: Sp. 204 or equivalent.

Three credits each semester

Sp. 303. The Golden Age of Spanish Literature

Study of the great authors of the sixteenth and seventeenth centuries.

Prerequisite: Sp. 301-302 or equivalent.

Three credits

Sp. 304. Nineteenth Century Spanish Drama

Study of representative works of nineteenth century Spanish drama.

Prerequisite: Sp. 301-302 or equivalent.

Three credits

Sp. 305. Nineteenth Century Spanish Novel

The development of the Spanish novel in the nineteenth century.

Prerequisite: Sp. 301-302 or equivalent.

Three credits

Sp. 306. The Generation of 1898

A study of the literary renaissance that took place in Spain during the turn of the century.

Prerequisite: Sp. 204 or equivalent.

Three credits

Sp. 307. Cervantes and Don Quixote

A study of the life and works of Cervantes with special emphasis on *Don Quixote*. Text analysis and interpretation. Later treatments of the Don Quixote theme in European culture. Open to non-majors for whom suitable translations will be suggested.

Prerequisite: Sp. 204 for majors, Eng. 151 for non-majors or permission of instructor.

Three credits

Sp. 395-396. Independent Research

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

Prerequisite: Approval of the department chairman is required.

One to three credits

Sp. 397. Seminar

Presentations and discussions of selected topics.

Prerequisite: Approval of the department chairman is required.

One to three credits. (Maximum of three credits per student.)

Russian

Rus. 101. Elementary Russian

Basic systematic introduction to the grammatical essentials of Russian; practice in reading, writing, and speaking the language.

Three credits

Rus. 102. Elementary Russian

Continuation of Russian 101. Graded elementary readings depicting the culture, life, and customs of the Russian people.

Prerequisite: Rus. 101 or equivalent.

Three credits

Rus. 203. Intermediate Russian

A review of basic grammar followed by emphasis on advanced grammatical structure. Reading of selected prose, directed standard-situation conversation, and composition of Russian.

Prerequisite: Rus. 102 or equivalent.

Three credits

Rus. 204. Intermediate Russian

Continuation of Rus. 203. Stress on conversational and written Russian to provide the student with confidence for self-expression and a basic active vocabulary. Practice in topical readings.

Prerequisite: Rus. 203 or equivalent.

Three credits

GENERAL SCIENCE

The following courses in Biological Science and Physical Science are described in the offerings of the Biology and Physics Departments. These courses are generally used to meet the science requirements of the liberal arts students.

The courses listed in Environmental Science may also be elected to fulfill these requirements.

Bio. 101-102. Biological Science

(See page 111.)

Env. Sci. 101. Introductory Earth Science

Structure and composition of Earth from core to crust, crustal movements, weathering, erosion and sedimentation; the oceans, including the principal currents, bottom topography, general chemistry and biology, and ocean-atmosphere interactions; the atmosphere, its structure and composition, and general elements of meteorology and climatology. Two hours lecture and two hours laboratory. Fee: \$10.

Three credits

Env. Sci. 102. Introductory Space Science

Descriptive astronomy with primary emphasis on the solar system and Earth as a planet; the physical and chemical processes of the outer atmosphere; and the principles of satellite orbits and space travel. Two hours lecture and two hours laboratory. Fee: \$10.

Three credits

Env. Sci. 103. Geology

Structure and chemistry of minerals; eutectics, solid solution, and Bowen's reaction series; permissible mineral assemblages and common rock types; the problem of granite formation; origin and correlation of sedimentary rocks; geosynclines; metamorphism; mountain building; isostasy; geomorphology; historical geology and the fossil record. Lecture, two hours and laboratory, two hours. Fee: \$20.

Three credits

Env. Sci. 104. Hydrology

The physical and chemical properties of water; precipitation, and factors which determine the distribution and amount on a watershed; drainage systems and the climatic and geologic factors that establish them and modify them; runoff, infiltration, evaporation, and vadose, ground, and lentic water; applications of hydrology and special topics such as rain making, control of evaporation, underground storage and leaching, flood control dams, and water pollution problems. Lecture, two hours and laboratory, two hours. Fee: \$20.

Three credits

Phys. 101-102. Physical Science
(See page 184.)

HISTORY

Professor Leach, chairman; Professor Kaslas; Associate Professor Cox; Assistant Professors Berg, Show, Rodechko, White; Instructor Meyers.

Hist. 101-102. History of World Civilization

This course is designed as a survey of all the basic cultures of the world. The major portion of the course will be devoted to the development of western civilization.

Attention will also be given to the part played by America in world history, especially during the expansion of Europe and in the twentieth century.

Three credits each semester

Hist. 107. American and Pennsylvania History to 1865

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

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

Three credits

Hist. 108. American History Since 1865

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

Three credits

Hist. 209. Ancient History: Near East

The birth of civilization in Mesopotamia and Egypt. Babylonian, Persian and Judaic backgrounds of western civilization. Attention will also be paid to certain lesser civilizations, with emphasis on the role of archeology.

Prerequisite: Hist. 101 and 102.

Three credits

Hist. 210. Ancient History: Classical World

The direct Greco-Roman antecedents for western civilization will be developed, beginning with Mycenae, through Homer, the Golden age, Hellenistic world, and the rise and fall of Rome. Emphasis will be on the cultural contributions of each group and period to our present world.

Prerequisite: Hist. 101 and 102.

Three credits

Hist. 211. Medieval Ages

Consideration will be given to political, economic, cultural institutions and activities, and intellectual development in Medieval Europe to the early Renaissance.

Prerequisite: Hist. 101 and 102.

Three credits

Hist. 212. The Renaissance and Reformation

Within the political and economic framework of the period, study will be made of the culture of the Renaissance, the religious reform and conflicts resulting from the crisis in the sixteenth century.

Prerequisite: Hist. 101 and 102.

Three credits

Hist. 221-222. American Social and Intellectual History

A study of social and intellectual developments in the United States from the colonial period to the present time. During the first semester emphasis will be placed on the influence of the American environment during the colonial period and of expansion and sectional disputes in the federal period upon society and upon religious, economic, and political thought. During the second semester the influences of industrialization, the rise of nationalism, and the emergence of the United States as a World Power will be emphasized.

Prerequisite: Hist. 107 and 108.

Three credits each semester

Hist. 223-224. American Constitutional History

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

Prerequisite: Hist. 107, 108, and P. S. 102. Restricted to juniors and seniors. Hist. 223 is a prerequisite for Hist. 224.

Three credits each semester

Hist. 226. Urban History

A survey of the origins and development of the modern city. Primary emphasis is given to the evolution of the city in America and its influence on American society and culture. Reference is made to the cities of modern Europe and Asia primarily for comparative purposes.

Prerequisite: Hist. 107 and 108.

Three credits

Hist. 235-236. History of the Far East

A study of the history of the civilizations developed in India, China, and Japan with emphasis on their inter-relations and distinctive characteristics and on their transformation in response to the penetration of western civilization from the sixteenth century onward. Some attention will be given to similar developments and changes among the countries of Southeast Asia.

Fall semester: to c. 1760. Spring semester: 1760 to the present.

Prerequisite: Hist. 101 and 102.

Three credits each semester.

Hist. 241-242. History of Great Britain and the British Empire and Commonwealth

A study of British history from the Neolithic period to present times. The first semester will cover social, economic, and political developments to 1783, including expansion overseas. The second semester will cover the consequences of the industrial revolution and the evolution of the Empire into the Commonwealth.

Prerequisite: Hist. 101 and 102.

Three credits each semester

Hist. 327-328. History of the Foreign Policy of the United States

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

Prerequisite: Hist. 101, 102, 107, and 108.

Three credits each semester.

Hist. 331. Colonial America

Discovery, exploration and settlement; development of social, political, religious and intellectual institutions; independence and political reorganization.

Prerequisite: Hist. 107 and 108.

Three credits

Hist. 333. The Age of Big Business, 1865-1914

A study of the political and economic history of the United States from 1865 to 1914. Special attention will be paid to the period of congressional dominance and the restoration of presidential power at the turn of the century; the economic, social and political consequences of the industrial revolution; and the rise of urban America.

Prerequisite: Hist. 107 and 108.

Three credits

Hist. 334. Twentieth Century America

The emergence of the United States as an industrial, urban world power and the corresponding development of its political, economic, social, religious, and intellectual institutions.

Prerequisite: Hist. 107 and 108.

Three credits

Hist. 355. Europe in the Nineteenth Century

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

Prerequisite: Hist. 101 and 102.

Three credits

Hist. 356. Europe in the Twentieth Century

Against a background of the internal and international developments of the leading powers, the class will study the origins and results of the two World Wars.

Prerequisite: Hist. 101 and 102.

Three credits

Hist. 357. History of Russia to 1815

A brief review of demographic and geographic factors will be used as background for a study of the political, social, and intellectual history of Russia from early times to 1815.

Prerequisite: Hist. 101 and 102.

Three credits

Hist. 358. History of Modern Russia

A thorough examination of nineteenth century Imperial Russia will serve as a basis for a detailed study of the development of Russia in the twentieth century. Emphasis will be on the origins and political, social, and cultural evolution of the Soviet State from its inception to the present.

Prerequisite: Hist. 101 and 102.

Three credits

Hist. 371. Historiography

An introduction to the aims, methods and accomplishments of some of the most renowned historians of Europe and America.

Prerequisite: Consent of head of department.

One credit

Hist. 395-396. Independent Research

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

Prerequisite: Approval of the department chairman is required.

One to three credits

Hist. 497. Seminar

Presentations and discussions of selected topics.

Prerequisite: Approval of the department chairman is required.

One to three credits. (Maximum of three credits per student.)

MATHEMATICS

Professor Wong, chairman; Associate Professors T. Richards, Earl, Mitra, Kimber; Assistant Professors DeCosmo, Wasileski, Salsburg, Torelli, Van Osdol, Wilks; Instructors Kravitz, Sours, Jahr.

Math. 100. Pre-Calculus Mathematics

A remedial course in advanced algebra and trigonometry designed to prepare students for calculus. Content of this course should normally be studied in secondary school.

Prerequisite: Two years of secondary school mathematics in algebra and geometry.

Four credits

Math. 101-102. Fundamentals of Mathematics I & II

A mathematics appreciation course designed to give students a general background in mathematical concepts. It is intended for those who will not take other courses in mathematics. Not open to students with credits in Math. 103-104.

Three credits each semester

Math. 103-104. Mathematics for Elementary School Teachers I and II

A study of the theory of arithmetic, structure of the number systems, geometry, and other topics relevant to the teaching of mathematics in elementary schools. Not open to students with credits in Math. 101-102.

Three credits each semester

Math. 111-112. Analysis I and II

Calculus or functions of a real variable. Topics include: functions, limits and continuity, differentiation, integration and their applications.

Prerequisite: Math. 100 or fulfillment of the mathematics requirements for entrance into the programs of biology, chemistry, engineering, mathematics, and physics.

Four credits each semester

Math. 211-212. Intermediate Analysis I and II

Introduction to calculus of functions of several variables, infinite sequences and series, elementary linear algebra, differential equations.

Prerequisite: Math. 112.

Four credits each semester

Math. 222. Set Theory and Logic

Designed to provide the logical and set theoretical prerequisites for the upper level courses in analysis, algebra, and topology. Topics include: informal logic and propositional calculus, sets, relations, functions, axiom of choice and its equivalents, cardinal and ordinal numbers. Three hours lecture and one hour problem-discussion per week.

Prerequisite: Math. 211 or consent of department chairman.

Three credits

Math. 267. Introduction to Computer Programming I

Introduction to programming and to computer languages with emphasis on Fortran IV. Students are expected to spend extra time solving problems using the computer. Fee: \$20.

Three credits

Math. 268. Introduction to Computer Programming II

A continuation of Math. 267. Devoted primarily to more sophisticated programming geared to the individual interests of the students. Enrollees are expected to spend extra time solving problems using the computer. Fee: \$20.

Prerequisite: Math. 267.

Three credits

Math. 311-312. Functions of a Real Variable I and II

Topological preliminaries for analysis, sequences and series of functions, Riemann-Stieltjes integral, introduction to Lebesgue integral, Fourier series.

Prerequisite: Math. 222.

Three credits each semester

Math. 314. Functions of a Complex Variable

Complex functions, limit and continuity, analytic functions, Cauchy's integral theorem and formula, power series, Laurent expansion, residues.

Prerequisite: Math. 311 or consent of department chairman.

Three credits

Math. 331. Introduction to Abstract Algebra I

A study of elementary number theory, groups, rings, and fields.

Prerequisite: Math. 222.

Three credits

Math. 334. Linear Algebra

Vector spaces, linear transformations, matrices, determinants, bilinear and quadratic forms, matrix polynomials.

Prerequisite: Math. 222.

Three credits

Math. 343. Introduction to Geometry

A study of selected topics from Euclidean geometry, affine geometry, projective geometry, and convexity.

Prerequisite: Math. 222.

Three credits

Math. 351-352. Probability and Mathematical Statistics I and II

Random variables, probability distributions, expectation and limit theorems, estimation, testing statistical hypotheses, confidence intervals.

Prerequisite: Math. 222.

Three credits each semester

Math. 361-362. Advanced Calculus I and II

Intended for physical science and engineering students. Topics to be selected from: vector integral and differential calculus, power

series, Fourier series, matrices, determinants, and eigenvalue problems.

Prerequisite: Math. 212.

Three credits each semester. Credit for mathematics majors by permission of department chairman only.

Math. 364. Numerical Analysis

Numerical methods of differentiation, integration, solution of equations and of differential equations with emphasis on problems that lend themselves to solution on computers. Knowledge of computer is desirable but not required.

Prerequisite: Math. 212.

Three credits

Math. 365. Partial Differential Equations

Linear, second order partial differential equations and boundary value problems, Fourier series and orthogonality, method of separation of variables.

Prerequisite: Math. 212.

Three credits

Math. 397. Seminar

Presentation and discussion of selected topics.

Prerequisite: Approval of department chairman.

One to three credits

Math. 413. Functions of Several Variables

A modern treatment of calculus of functions of several real variables. Topics include: Euclidean spaces, differentiation, integration on manifolds leading to the classical theorems of Green and Stokes.

Prerequisites: Math. 311 and 334.

Three credits

Math. 432. Introduction to Abstract Algebra II

A continuation of Math. 331. Polynomial rings, ideals, field extensions and Galois Theory.

Prerequisite: Math. 331.

Three credits

Math. 441. Introduction to Topology I

Metric spaces, topological spaces, countability and separation axioms, compactness and connectedness, product spaces.

Prerequisite: Math. 311.

Three credits

Math. 442. Introduction to Topology II

A continuation of Math. 341. Hilbert spaces, Banach spaces, and Banach algebras.

Prerequisite: Math. 341.

Three credits

Math. 470. Reading Course

Individual study of an outstanding text under the supervision of a faculty member. Designed for students who have completed a substantial amount of course work in mathematics. May be repeated for credit.

Prerequisite: Senior standing and consent of department chairman.

One to three credits

Math. 480. Topics in Mathematics

A study of topics of special interest. It may be a continuation and intensive study of topics begun in the upper level courses in analysis, topology, algebra, and probability. May be repeated for credit.

Prerequisite: Consent of instructor.

Three credits

MUSIC¹

Associate Professor Gasbarro, chairman; Associate Professor L. Schmidt, Chapline; Assistant Professors Garber, Santos, Fall; Instructors Probert, Mowery, Swoboda, Balshaw, A. Liva.

¹ There is a music fee of \$10 per semester for all Music and Music Education majors.

Applied Music

Individual and group instruction are offered at all levels of difficulty to students in piano, pipe organ, voice, and orchestral and band instruments. The student receives a series of fourteen lessons a semester. A performing examination before the music faculty is necessary if credit is to be obtained for such study.

Students who are not music majors may receive one credit each semester for voice or instrumental study. No performing examination is necessary if credit is not desired by the student.

The ability, interest, and progress of students intending to major in music will be evaluated at the end of the sophomore year by the music faculty. Students will be advised before the opening of the following semester if the faculty does not recommend a continuation of the music major.

Fees for private instruction are in addition to the regular tuition charge.

One credit each semester

Mus. 101. Introduction to the Materials and Literature of Music I

The materials of music and their interrelationships. Illustrations are derived from literature of all periods for the purpose of developing understanding and enjoyment through perceptive listening.

Three credits

Mus. 102. Introduction to the Materials and Literature of Music II

A survey of performance literature extending from the Baroque period to the present. Directed listening to illustrations of various media, forms, and styles characteristic of each period for the purpose of stimulating critical judgment in the listener.

Three credits

Mus. 105-106-107-108. Theory of Music

The study of the theory of music is centered upon three main principles:

- (1) The recognition of intervals and meter through dictation.
- (2) The structure of chords and chord progressions through keyboard harmony.
- (3) The writing of music through exercises in harmonic and contrapuntal techniques.

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

There is no prerequisite for Mus. 105. Students may be admitted to Mus. 106, 107, and 108 by examination.

Five credits each course

Mus. 109. History of Music I

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

Three credits

Mus. 110. History of Music II

A continuation of Mus. 109, beginning with J. S. Bach and tracing musical development to the present day. Twentieth century music will be emphasized in the final weeks of study.

Three credits

Mus. 111-112. Piano Class 1 and 2

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

No prerequisite.

Two credits each semester

Mus. 113-114. Piano Class 3 and 4

Advanced class instruction in piano. This course is a continuation of the required course for all music education majors who cannot play piano grade 4 or better.

Prerequisite: Mus. 112.

Two credits each semester

Mus. 121-122-123-124. Band

The band offers the student a varied program for concerts and for various athletic events. Students desiring to participate in the band should consult with the Director.

All instrumental music education majors are required to participate in the band for four years.

One-half credit each semester

Mus. 125-126-127-128. Chorus

The chorus offers the student a complete range of sacred and secular choral music. Students desiring to participate in the chorus should consult with the Director.

All music education majors studying voice or piano are required to participate in the chorus for four years.

One-half credit each semester

Mus. 131-132-133-134. Orchestra

Participation in the Wilkes-Barre Philharmonic Orchestra gives the student experience in the complete range of symphonic literature. Students desiring to participate in the orchestra should consult with the Director.

One-half credit each semester

Mus. 215. Instrumentation

The instruments of the modern symphonic orchestra, their capabilities and limitations. The technique of scoring for small instrumental combinations; transposition and clef manipulation.

Prerequisite: Mus. 108 or the approval of the chairman of the Department.

Two credits

Mus. 216. Orchestra and Band Arranging

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

Prerequisite: Mus. 215.

Two credits

Mus. 217. Analysis

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

Prerequisite: Mus. 108 or equivalent as demonstrated by an examination.

Two credits

Mus. 218. Counterpoint

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

Prerequisite: Mus. 108.

Three credits

Mus. 395-396. Independent Research

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

Prerequisite: Approval of the department chairman is required.

One to three credits

Mus. 397. Seminar

Presentations and discussions of selected topics.

Prerequisite: Approval of the department chairman is required.

One to three credits. (Maximum of three credits per student.)

MUSIC EDUCATION¹

Mus. Ed. 101-102. Clarinet Class and Methods

Methods of teaching and instruction in the clarinet.

No prerequisite.

Two credits each semester

Mus. Ed. 103-104. Brass Class and Methods

Methods of teaching and instruction in the brass field.

No prerequisite.

Two credits each semester

Mus. Ed. 105. Woodwind Class Methods

A class conducted as an introduction to the teaching of such wood-winds as clarinet, oboe, flute, and bassoon, with demonstrations of the class teaching of those instruments.

No prerequisite.

Two credits each semester

¹ There is a music fee of \$10 per semester for all Music and Music Education majors.

Mus. Ed. 106. Brass Class Methods

A class in brass is conducted as an introduction to the teaching of brass instruments and as demonstration of class teaching of these instruments. The instruments taught include trumpet, French horn, trombone, baritone, and tuba.

No prerequisite.

Two credits

Mus. Ed. 121. Violin Class and String Methods

A class in violin playing and in the teaching of string instruments.

No prerequisite.

Two credits

Mus. Ed. 122. Viola Class and String Methods

A class in viola playing and in the teaching of string instruments.

No prerequisite.

Two credits

Mus. Ed. 123. Violoncello and Bass Class and String Methods

A class in the playing of the violoncello and the bass and in the teaching of string instruments.

No prerequisite.

Two credits

Mus. Ed. 125. Percussion Class Methods

A class in the fundamentals of percussion performance and demonstrations of class teaching.

No prerequisite.

Two credits

Mus. Ed. 127-128. Voice Class and Methods

A course in the fundamentals of correct voice production; breathing, breath control, elementary study of vowel forms, and consonants. Elementary songs are used to develop the student's own voice as well as to train him in voice pedagogy.

No prerequisite.

Two credits each semester

Mus. Ed. 201. Elementary School Music Methods

The course involves a general preparation for the teachers of music in the elementary grades. It entails a study of the principles, procedures, and objectives in school music.

Prerequisite: Junior Class standing.

Two credits

Mus. Ed. 202. Secondary School Music Methods

The course is planned to provide a preparation for teaching the various aspects of music in the secondary school.

Prerequisite: Junior Class standing.

Two credits

Mus. Ed. 209-210. Conducting and School Music Materials

The development of an adequate baton technique and the presentation of various kinds of school music material, stressing particularly elementary and high school instrumental materials the first semester and high school choral materials the second semester.

No prerequisite.

Two credits each semester

Mus. Ed. 340. Professional Semester in Music Education

Provides classwork and practical experience to prepare for the teaching of music in elementary and secondary schools. Fee: \$20.

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

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

Prerequisite: Ed. 200.

Eight credits

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

Mus. Ed. 343. General Classroom Methods

A study of various instructional procedures used in public school classrooms.

One credit

Mus. Ed. 344. Multi-Sensory Techniques in the Teaching of Music

A study of the use of multi-sensory aids in the teaching of music in elementary and secondary schools.

One credit

Mus. Ed. 346. Student Teaching in Music

A course in the observation and student teaching of vocal or instrumental music in elementary and secondary schools.

Six credits

NURSING EDUCATION

Professor Jessee, chairman; Instructor Bonawitz.

Enrollment in all of the following courses with the exception of N. E. 101 and 104 is limited to graduate nurses.

N.E. 101. Foundations of Nursing

A general survey of the history of nursing with emphasis upon the religious, social, and educational factors that have stimulated its development.

Two credits

N.E. 102. Trends in Nursing

A discussion of present problems in nursing and trends or patterns that emerge in the efforts to solve these problems.

Two credits

N.E. 104. Community Resources

A survey of the functions and activities of agencies and organizations contributing to the health and social welfare of the citizens of the community.

Two credits

N.E. 106. Supervision and Administration

A discussion of the basic principles of supervision and administration with emphasis upon democratic leadership and the development of constructive interpersonal and interdepartmental relationships.

Two credits

N.E. 107. Principles and Methods in Nursing Education

This course deals with the selection and organization of teaching materials and learning experiences. It includes the appraisal of effective methods of teaching and the evaluation of student progress and achievement.

Prerequisite: Psych. 102 or permission of instructor.

Two credits

N.E. 108. Multi-Sensory Techniques in Nursing Education

A study of the use of multi-sensory teaching aids in nursing education.

Prerequisite: N. E. 107 (may be taken concurrently).

One Credit

N.E. 112. Field Experience in Supervision or Teaching

Supervised observation and practice in a hospital.

Prerequisite: Approval of adviser.

Four credits

N.E. 113-114. Medical and Surgical Nursing

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

Two credits each semester

N.E. 209. Psychiatric Nursing

In the psychiatric setting, skills and understandings pertinent to the nursing care of patients are developed with emphasis on the relationship of the nurse both to the individual patient and to groups of patients. Care of the patient is discussed in the larger context of family and community. Lectures and hospital experience.

Prerequisite: Permission of the instructor.

Six credits

PHILOSOPHY — RELIGION

Professor S. Vujica, chairman; Associate Professor Kay; Assistant Professors Williams, Belic, Sasso; Instructor Barras.

Philosophy

Phil. 101. Introduction to Philosophy

An introduction to the nature and function of philosophy, and its relations to some of the other fields of human interest. The approach is through such typical problems as: the nature and origin of life, the relation of mind and body, freedom of the will, the theories of right and wrong, arguments for theism. This course is a prerequisite to all advanced philosophy courses.

Three credits

Phil. 102. Logic and Scientific Method

Elementary principles and techniques of clear and sound thinking. General rules of inductive and deductive reasoning; recognition of fallacies; the nature of scientific knowledge, its methods, its aims, its presuppositions.

Three credits

Phil. 210. Ethics

A critical study of standards for judging the rightness or wrongness of conduct. An inquiry into what men *ought* to do. A survey of representative ethical theories with the emphasis on their application to currently controversial issues in the social, economic, and political fields.

Three credits

Phil. 220. Philosophy of Religion

An examination of various problems that arise when religion is made the object of philosophic reflection. The nature and forms of religious experience; the relation of faith and reason; arguments for God's existence; the problem of evil; the argument for immortality.

Three credits

Phil. 230. Aesthetics

Analysis of the nature, standards and criteria of value in literature, painting, music, and other forms of arts; the meaning of aesthetic judgments and processes of appreciation. An examination of the objective qualities of those things which are found to be aesthetically effective.

Three credits

Phil. 240. Social and Political Philosophies

Social and political institutions as seen by such classical critics as Plato, Aristotle, Hobbes, Hume, Burke, Bentham and others. Special attention to analysis of the problems of censorship, relation of church and state, prejudice, aims and methods of democratic institutions.

Three credits

Phil. 250. Ancient and Medieval Philosophy

A study of the development of Western thought from Thales to Occam with special attention to such key thinkers as Plato, Aristotle, Democritus, Plotinus, Thomas Aquinas and Duns Scotus.

Three credits

Phil. 260. History of Modern Philosophy

The major trends in philosophic thought from the Renaissance to the end of the nineteenth century, with special emphasis on: Descartes, Spinoza, Leibnitz, Locke, Berkeley, Hume, Kant, Hegel, Schopenhauer, Comte, Bentham, and Mill.

Three credits

Phil. 270. Contemporary Philosophy

A review of current schools of philosophy, with special emphasis on: Dialectical Materialism, Pragmatism, Existentialism, British and American Realism, and the various trends in linguistic analysis. Major philosophers to be studied: James, Dewey, Moore, Husserl, Russell, Santayana, Heidegger, Sartre, Jaspers, Wittgenstein, and Ayer.

Three credits

Phil. 310. Philosophies of History

A study of the various interpretations of history. The views of Augustine, Vico, Rousseau, Kant, Hegel, Marx, Comte, Spengler, Schweitzer, Toynbee, Sorokin, Niebuhr and others on the meaning of historical events.

Three credits

Phil. 320. The Philosophy of Science

A critical examination of the nature of science; meaning, verifiability and experimentation in the sciences; the principle of verifiability in Physics and Psychology; induction and the various interpretations of probability; causality and laws of nature, and the nature of explanation and justification.

Three credits

Phil. 395-396. Independent Research

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

Prerequisite: Approval of the department chairman is required.

One to three credits

Phil. 397. Seminar

Presentations and discussions of selected topics.

Prerequisite: Approval of the department chairman is required.

One to three credits. (Maximum of three credits per student.)

*Religion***Rel. 200. Man's Religions**

Nature and origin of religion. Sacred literatures, beliefs, and rituals of the great historical and living faiths. A comparison of the more important features of the great religions. The contributions of religion to the development and preservation of cultural values.

Three credits

Rel. 201. The Literature of the Old Testament

The course aims at giving the student an insight into the books of the Old Testament and the range and depth of the religious heritage received from Israel. The biblical message is studied in its dynamic context of the culture, geography and history of the ancient Near East.

Three credits

Rel. 202. The Literature of the New Testament

An examination of the form and content of the books of the New Testament as literary products and as records of the faith that gave rise to the Christian Church. The teachings of Jesus and the Apostolic Church are studied against the background of their own time and examined in their significance for contemporary life.

Three credits

Rel. 212. Contemporary Trends in Religious Thought

A study of the development of religious thought from "Neo-Orthodoxy" to the "Death of God" theologies. The impact of scientism, linguistic philosophies and ecumenism on modern theologizing; the thinkers whose views will be considered include: Barth, Brunner, the Niebuhrs, Bultmann, Farmer, Weiman, Maritain, Buber, Sartre, Heidegger, Tillich, Rahner, Rubenstein, Altizer, Cox, Brown and Weigel.

Three credits

PHYSICAL EDUCATION AND HYGIENE

Associate Professor Reese, chairman; Assistant Professors R. Schmidt, Rainey, Saracino; Instructor Domzalski.

Because of the importance of health and the possession of a sound body, attention is given to the physical well-being of students as a regular part of the curriculum; mass athletics and some form of sport or exercise for each student are included in the program of physical education. Physical education is required of both men and women during the freshman and sophomore years.

The College men at the beginning of each year are given a medical and a physical examination. The work in physical education includes soccer, football, basketball, baseball, volley ball, and other competitive games.

The College women also are given a thorough medical and physical examination before entering upon the program of physical education. The work for women consists of such activities as dancing, basketball, and natural gymnastics.

P.E. 101-102-103-104. Physical Education

This course is designed to promote physical well-being and good health habits and to encourage participation in activities that will provide relaxation and exercise throughout life. Two hours each week.

P.E. 105-106. Hygiene¹

A study of present day health problems. The course undertakes to help students enjoy maximum health and happiness through better understanding of nutrition, infection, disease, nervous and mental disorders, and problems of parenthood. One hour each week.

One credit each semester

PHYSICS

Professor Bellas, chairman; Professors Donahoe, Holden; Associate Professors Bruch, Thomas; Assistant Professors Morrow, Nejib, Hostler, Toole, Bailey, Placek.

Phys. 101-102. Physical Science

A course for the non-science student to enable him to understand and appreciate the universe in which he lives; the methods, concepts, and vocabulary of physics and applications of some of its outstanding principles to the needs of the individual and the community; and the manner in which the continually expanding frontiers of science affect our future way of life. Lecture, demonstration, and discussion three hours a week.

Three credits each semester

Phys. 105-106. Introductory Physics

An introductory course designed to promote an understanding of the more important fundamental laws and methods of the major sections of physics. Laboratory work to emphasize basic principles and to acquaint the student with measuring instruments and their use as well as the interpretation of experimental data. First semester: mechanics, wave motion, sound, and heat. Second semester: electricity, magnetism, and optics. Three class hours and one three-hour laboratory each week. Fee: \$20 each semester.

Four credits each semester

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

Phys. 201. General Physics I

A thorough grounding in the concepts, principles, and physical laws of Mechanics, Thermodynamics, and Acoustics. Instruction by demonstration lecture, recitation, and experimental work. Demonstration lecture two hours a week, recitation one hour a week, and laboratory three hours a week. Fee: \$20.

Four credits

Phys. 202. General Physics II

Continuation of Phys. 201. Electricity and Magnetism, and Optics and Light. Demonstration lecture two hours a week, recitation one hour a week, and laboratory three hours a week. Fee: \$20.00.

Prerequisite: Phys. 201.

Four credits

Phys. 203. General Physics III

Continuation of Phys. 201 and 202. Modern physics. Including the experimental basis, concepts, and foundational principles of modern atomic and nuclear physics. Demonstration lecture three hours a week.

Prerequisite: Phys. 202.

Three credits

Phys. 230. Optics and Light

The principles of geometrical and physical optics are considered in considerably greater detail than in the introductory course. Image formation, refraction, diffraction, origin of spectra, polarized light, optical activity, etc. Three hours class and one three-hour laboratory a week. Fee: \$20.

Prerequisite: Phys. 202.

Four credits

Phys. 231-232. Electronics

A study of vacuum tubes, transistors, and their application in circuits for rectification, amplification, oscillation, switching, etc. Two hours class and one three-hour laboratory a week. Fee: \$20 each semester.

Prerequisite: Phys. 202.

Three credits each semester

Phys. 240. Thermodynamics

The fundamental concepts of thermodynamics. The first and second laws of thermodynamics, Carnot cycle, entropy, and an introduction to statistical mechanics. Three hours lecture-discussion.

Prerequisite: Phys. 202.

Three credits

Phys. 307. Topics in Theoretical Physics

Selected topics depending upon the interests of the instructor and students. Topics might include advanced mechanics, fluid mechanics, electromagnetic theory, relativity, etc. Class, three hours.

Prerequisite: Math. 362 or approval of the instructor.

Three credits

Phys. 311-312. Mechanics

Intermediate level courses designed to develop a thorough understanding of the principles of mechanics and the application of mathematical methods to the solution of its problems. Topics include Newtonian motions of particle systems (such as a harmonic oscillator, central force problems, etc.), rotations of rigid bodies, moving coordinate systems, continuous media, inertia and stress, tensors, Lagrange's equations of motion (theory of small vibrations). Recitation lecture three hours a week.

Prerequisites: Phys. 202 and Math. 212.

Three credits each semester

Phys. 331-332. Electricity and Magnetism

Static and dynamic electricity, magnetism, electromagnetism, thermoelectricity, etc., are covered in considerable detail. The emphasis in this course is on fundamental analysis rather than applications. Three hours class and one three-hour laboratory a week each semester. Fee: \$20 each semester.

Prerequisites: Phys. 202 and Math. 212.

Four credits each semester

Phys. 351. Quantum Mechanics

An introduction to the theoretical and mathematical aspects of quantum mechanics. Topics include Schrodinger's equation and its application to the harmonic oscillator, the potential-well, and the hydrogen atom problems; steady-state nondegenerate, degenerate, and time-dependent perturbation theory; angular momentum;

identical particles and Pauli's exclusion principle; relativistic wave equation and the origin of electron spin. Three hours lecture-discussion.

Prerequisites: Phys. 312, Math. 362.

Three credits

Phys. 361. Atomic Physics

The structure of the atom, the photo-electric effect, crystal structure, X-rays, spectra, introduction to quantum theory. Class, three hours and one three-hour laboratory a week. Fee: \$20.

Prerequisites: Phys. 203, 311, 331.

Four credits

Phys. 370. Solid State Physics

Selected topics, depending upon the interests of the instructor and students. For example, theory of electrical and thermal conductivity, semiconductors, bonding in solids, point defects, dislocation, magnetic properties, etc. Class, three hours.

Prerequisites: Phys. 361, Math. 362, or approval of the instructor.

Three credits

Phys. 380. Nuclear Physics

Special relativity, natural and induced radioactivity, nuclear structure, nuclear reactions, reactors, etc. Class, three hours and one three-hour laboratory a week. Fee: \$20.

Prerequisite: Phys. 361.

Four credits

Phys. 391-392. Advanced Laboratory

Students desiring to undertake laboratory work in topics of their own choosing should consult the department chairman. Lab fee: \$7 per credit hour.

Prerequisites: Phys. 203, Math. 212.

One or two credits — Hours to be arranged

Phys. 395-396. Independent Research

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

Prerequisite: Approval of the department chairman is required.

One to three credits

Phys. 397. Seminar

Presentations and discussions of selected topics.

Prerequisite: Approval of the department chairman is required.

One to three credits. (Maximum of three credits per student.)

THE 400 SERIES COURSES ARE GRADUATE COURSES AVAILABLE TO UNDERGRADUATE SENIORS WITH PERMISSION OF THE INSTRUCTOR AND THE DEPARTMENT CHAIRMAN.

Phys. 401-402. Methods of Mathematical Physics

Study of different branches of Mathematics and their applications in Physics. Topics include: Ordinary and partial differential equations; Fourier series and integrals; Complex variables; Matrix methods; Green's functions; Tensor analysis; Group theory; and others. Three hours lecture-discussion.

Prerequisite: Math. 362 or equivalent.

Three credits each semester

Phys. 471. Crystallography

Repetition theory and translational and rotational symmetry. Derivation of the crystal classes. Combination of symmetry operations involving reflections and inversions. The symmetrical plane and space lattices. The coordinate systems of crystallography and crystal forms. Practical determination of point-group symmetry. The algebra of operations. Space groups. Equivalent positions in space groups. The determination of space groups. Group Theory and its application to point symmetries.

Three credits

Phys. 472. X-Ray Diffraction

X-rays and their properties. Directions and intensities of diffracted beams. Laue, Debye-Scherrer, Diffractometer, Rotating, Oscillating, Weissenberg and Precession Methods. Outline of crystal structure analysis. Laboratory, one period per week. Fee: \$20.

Prerequisite: Phys. 471.

Three credits

Phys. 473. Crystalline Anisotropy

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

Prerequisite: Phys. 472.

Three credits

POLITICAL SCIENCE

Professor Mailey, chairman; Assistant Professors Tuhy, Sugiyama, Niehoff.

P.S. 101. Political Science I

A broad, comprehensive introduction to the great topics which constitute political science, covering the nature and main elements of the modern states, their politics, their institutions, and their relations with one another.

Three credits

P.S. 102. Political Science II

A descriptive and analytical study of the theory and practice of American National Government including its constitutional basis, organization, powers, and functions and services.

Three credits

P.S. 201. Constitutional Law I

A course intended to show the growth of the American Constitution particularly United States governmental structure and relationships with special emphasis on change in the Constitution, the three branches of government, the Federal System, and the powers of the National Government. The case study method is used.

Prerequisite: P. S. 101 and 102.

Three credits

P.S. 202. Constitutional Law II

A course intended to show the growth of the American Constitution particularly the relations between the individual and his government with special emphasis on liberty against government, pro-

tection of civil rights, citizenship and its privileges. The case study method is used.

Prerequisite: P. S. 101 and 102.

Three credits

P.S. 203. Politics and Political Parties

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

Prerequisite: P. S. 101 and 102.

Three credits

P.S. 204. Public Opinion and Propaganda

A study in the behavior of governance, including the factors which determine attitude, the formation and expression of public opinion, and propaganda as used by pressure groups.

Prerequisite: P. S. 101 and 102 and Soc. 101 and 102.

Three credits

P.S. 205. State Government

A broad, general course covering the structure, powers, and function of state governments in the United States. Special emphasis is placed on the Pennsylvania State Government.

Prerequisite: P. S. 101 and 102.

Three credits

P.S. 206. Municipal Government

A course undertaking the study of the organization, work, and administration of local government. Since the national government has assumed a new significance today, special attention is given to the relationship between local and national government.

Prerequisite: P. S. 101 and 102.

Three credits

P.S. 207. Public Administration

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

Prerequisite: P. S. 101 and 102.

Three credits

P.S. 208. Labor Legislation

A course dealing with the role of government in the field of labor relations and with the laws affecting the conditions of employment and employee-employer relations. The course stresses the increasing importance of government in a field heretofore free of any regulation.

Prerequisite: P. S. 101 and 102.

Three credits

P.S. 210. Government of Metropolitan Areas

An examination of the politics and the processes of contemporary urban government, with special emphasis upon the complex problems presented by the rapidly expanding population in standard metropolitan areas.

Prerequisite: P. S. 101 and 102.

Three credits

P.S. 211. Intergovernmental Relations

An analysis of the evolution, growth, present status and characteristics, including problems, posed by the Federal system of grants-in-aid.

Prerequisite: P. S. 101 and 102.

Three credits

P.S. 212. Management of Municipalities

A study of the underlying issues, problems, and concepts encountered in local government administration affecting urban change.

Prerequisite: P. S. 101 and 102.

Three credits

P.S. 221. International Law

A study of the development of the body of customs and rules which states have developed to govern their relations, with particular consideration for the responsibility of states for their enforcement.

Prerequisite: P. S. 101 and 102.

Desideratum: United States and European history.

Three credits

P.S. 222. International Relations

An analysis of the major concepts, principles and factors involved in an understanding of international relations and foreign policies of nations.

Prerequisite: P. S. 101 and 102.

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

Three credits

P.S. 223. Comparative Government

A comparative study of the various forms and kinds of governments that have developed in the modern world with primary attention directed toward Europe.

Prerequisite: P. S. 101 and 102.

Three credits

P.S. 224. Soviet System of Government

A course dealing with the structure and functions of the Soviet Government emphasizing the contrasts and similarities in form with governments of the West.

Prerequisite: P. S. 101 and 102.

Three credits

P.S. 225. International Organization

A study of the growth of cooperative efforts toward international organization; the nature, functions, and problems relating to international organization.

Prerequisites: P.S. 101 and 102.

Three credits

P.S. 226. Government and Politics of Asia

An analysis of the distinctive institutions, processes, and problems of political development and contemporary government in Asia, with emphasis on the post-independence era, and on Japan and China.

Prerequisites: P.S. 101 and 102.

Three credits

P.S. 251. The Role of Planning in Urban Development

Origins and evolution of city planning, influences of urban growth, legal and institutional framework, and scientific and philosophical premises. Survey of city planning as it has evolved in the United States since 1800 in response to physical, social and economic problems.

Prerequisite: P.S. 101 and 102.

Three credits

P.S. 252. Fundamentals of Urban Design

A study of the principles of urban design and the use of space to achieve efficiency with maximum visual amenity.

Prerequisite: P.S. 251.

Three credits

P.S. 253. Land Use Planning Law

A course dealing in the law of city planning, nuisance, subdivision controls, eminent domain, urban renewal, and public aspects of real estate financing, with special emphasis on the relationship between implementing planning goals and the basis principles of constitutional law.

Prerequisite: P.S. 251.

Three credits

P.S. 395-396. Independent Research

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

Prerequisite: Approval of the department chairman is required.

One to three credits

P.S. 397. Seminar

Presentations and discussions of selected topics.

Prerequisite: Approval of the department chairman is required.

One to three credits. (Maximum of three credits per student.)

PSYCHOLOGY

Professor Riley, chairman; Assistant Professor Stetten; Instructors Hobrock, Kanner, Krasno, Bonawitz, Pisaneschi.

Psy. 101-102. General Psychology

An introduction to the field of psychology with emphasis on objective and systematic methods of inquiry. Extensive treatment of major psychological topics such as sensation, perception, learning, motivation, intelligence, and personality development. Frustration, conflict, and mental health also receive attention.

Three credits each semester

Psy. 201. Advanced General Psychology

A more detailed study of topics treated only superficially in the introductory course. More attention will be given to physiological foundations of behavior, to learning, perception, and the emotions.

Prerequisite: Psy. 101 and 102. Some background in biology or physiology would be desirable.

Three credits

Psy. 203. Psychologic Theory

A comprehensive survey of classical and contemporary theories and their relationship to empirical research. Special emphasis is placed on attempts to reconcile and translate these theories into operational descriptions.

Prerequisite: Psy. 101 and 102.

Three credits

Psy. 206. Systematic Psychology

A historical introduction to the various points of view in recent psychology, followed by a study of the theories of such leaders in the field as Watson, Freud, McDougall, Thorndike, and Kohler.

Prerequisite: Psy. 101 and 102 and one other course in psychology.

Three credits

Psy. 211-212. Experimental Psychology

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 ex-

periments in the field of psychology. Also included is practice with the older as well as the more recent methods of experimental research. Lecture and laboratory. Fee: \$20 each semester.

Prerequisite: Psy. 101 and 102.

Three credits each semester

Psy. 221. Child Psychology

The course is designed to present a general view of the development and growth of the child. It is concerned primarily with the heredity and native equipment of the child and the manner in which this equipment is modified during childhood. Emotional development, language development, and social relations are considered.

Prerequisite: Psy. 101 and 102.

Three credits

Psy. 232. Human Behavior

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

Prerequisite: Psy. 101 and 102.

Three credits

Psy. 242. Psychological Tests

A survey of the functions measured by psychological tests with emphasis on intelligence and personality. A variety of the group and individual tests which measure these functions are studied. This course is a prerequisite for Psy. 251 and Psy. 255.

This course is a prerequisite for Psy. 243 and Psy. 245.

Three credits

Psy. 243. Industrial Psychology

An introduction to the industrial application of psychology in the selection, classification, and training of employees; reduction of monotony and fatigue; the maladjusted worker; accident prevention; work conditions; and employee motivation and morale.

Prerequisite: Psy. 212.

Three credits

Psy. 245. Clinical Psychology

A survey of the clinical method in psychology with consideration of diagnostic and treatment techniques and the role of the professional psychologist in various settings.

Prerequisite: Psy. 242.

Three credits

Psy. 331. Abnormal Psychology

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

Prerequisite: Psy. 221, 232 and permission of head of department.

Three credits

Psy. 395-396. Independent Research

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

Prerequisite: Approval of the department chairman is required.

One to three credits

Psy. 397. Seminar

Presentations and discussions of selected topics.

Prerequisite: Approval of the department chairman is required.

One to three credits. (Maximum of three credits per student.)

RETAILING

Professor Rosenberg, chairman; Instructor D'Zurko.

Ret. 101. Principles of Retailing

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

Three credits

Ret. 210. Elements of Merchandise

Merchandise information; fibers and fabrics; history, production, manufacturing process from fiber to finished fabric; textile terminology, trade names. Identification, testing of fibers; care of fabrics; new developments. Study of natural, industrial and synthetic materials.

Three credits

Ret. 211. Merchandise Information

Materials, other than textiles, used in the creation of merchandise are covered through the study of raw materials. Categories of merchandise covered include: leather goods, such as shoes, gloves, handbags, and luggage; floor coverings; glass, pottery, and china; and furniture.

Three credits

Ret. 212. Purchases and Merchandising Control

The principles, techniques, and problems encountered in merchandising; purchase planning, markup, markdown, inventories and their control, turnover, retail method of inventory, and the types and limitation of stock control systems.

Prerequisite: B. A. 107 or approval of instructor.

Three credits

Ret. 214. Retail Buying

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

Prerequisite: approval of instructor.

Three credits

Ret. 220. Organization and Operation of the Small Store

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.

Two credits

Ret. 224. Recent Trends and Developments in Retailing

Review of fundamentals; trends in retailing; study of developments in cooperation with retail store executives. Laboratory work; reports on trends and developments.

Three credits

Ret. 225. Retail Practice

Required of all retailing majors in the seventh semester. In co-operation with local stores, a program in Retailing Practices has been established. Under this program, students majoring in Retailing must be employed for an average of 25 hours a week during the fall term of the senior year. During the period of employment, students will be required to submit reports concerning their work to the instructor; the store manager or personnel director is required to evaluate the students' ability and aptitude for retailing. Credit for the course given upon certification by the manager or personnel director of the co-operating store that students have satisfactorily completed their terms of employment.

Students who wish to seek their own place of employment may be permitted to do so, provided the place of employment has been approved by the instructor. In general, this approval will be given to employment in department stores, independent stores, variety stores, chain stores, and specialty stores where students will receive a variety of experience, and the stores are of a sufficient size to provide adequate and diversified experience.

Three credits

SECRETARIAL STUDIES

Professor Rosenberg, chairman; Assistant Professor Gera; Instructor Dolbear.

S.S. 105-106. Elementary Shorthand

Development of reading and writing skill in basic Gregg Shorthand Simplified and review of simple English essentials that are necessary in transcription; completion of basic theory.

Second semester: Review of Gregg Shorthand Simplified with emphasis on fluency and legibility; development of speed and accuracy in the application of shorthand; pre-transcription training; development of desirable traits and work habits. Four hours each week. One hour lecture, three hours laboratory.

Two credits each semester

S.S. 107-108. Elementary Typewriting

Presentation and mastery of the keyboard and operating parts of the typewriter; stroking techniques and control emphasized. Development of skill in typewriting; application of skill to letter writ-

ing, envelopes and cards, tabulation problems, copying from rough draft, manuscript writing; study of form and style.

Four hours each week. One hour lecture and three hours laboratory. Fee: \$10 each course. Minimum passing requirement: 50 words net per minute.

Two credits each semester

S.S. 201-202. Advanced Typewriting

Development of greater speed and accuracy in typewriting; review of form and style in typewritten material; advanced application of typewriting skills; production typing; accuracy, speed and job techniques emphasized; development of desirable work habits and attitudes. Three hours laboratory. Fee: \$10 each course.

Prerequisite: S. S. 108 or equivalent and net typing rate of 50 words per minute.

One credit each semester

S.S. 205. Office Procedures and Machines

A study of technical procedures and problems in typical business and professional offices; analysis of personal and professional requirements for office personnel; a general survey and comparison of major office machines classifications; administrative machine procurement problems and procedures; operation and use of office machines and equipment, namely, adding, calculating, dictating and transcribing, duplicating, photocopying, accounting, integrated data processing. Eight hours each week. Two hours lecture, six hours laboratory. Fee: \$10.

Prerequisite: approval of instructor.

Four credits

S.S. 207-208. Advanced Shorthand

Review and strengthen knowledge of the principles of Gregg Shorthand Simplified; build shorthand — writing skill and speed in taking dictation with great emphasis placed on the development of transcription skill; development of desirable work habits and attitudes. Five hours each week. Two hours lecture, three hours laboratory.

Prerequisite: S. S. 106 or equivalent and net typing of 50 words a minute.

Three credits each semester

S.S. 243. Principles and Methods of Business Education

Principles of business education; business curricula in secondary schools; psychology of skill-building; objectives, standards, content; tests and measurements, and techniques of instruction in business education courses; observation.

Three credits

SOCIOLOGY AND ANTHROPOLOGY

Professor Moravec, chairman; Assistant Professor Weinstein; Instructors O'Connor, Welliver.

Soc. 101. Introduction to Sociology and Anthropology I

Man in Society; a systematic view of sociology, providing essentials for an approach to questions about man in society; analysis of social processes, structures, and functions.

Three credits

Soc. 102. Introduction to Sociology and Anthropology II

Man and Culture; a general survey of the field of anthropology stressing its cultural aspects; study of contemporary non-literate societies and their institutions.

Three credits

Soc. 200. The Family

History and ethnological studies of family. Role of family in the development of the individual. Interrelation of church, state, and family. Social conditions and changes affecting the American family. Family instability and disorganization.

Prerequisite: Soc. 101 and 102 or permission of instructor.

Three credits

Soc. 215. Sociology of Urban Life

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

Prerequisite: Soc. 101 and 102.

Three credits

Soc. 230. Social Problems

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

Prerequisite: Soc. 101 and 102.

Three credits

Soc. 235. Crime and Juvenile Delinquency

Evaluation of current theories and research into causative factors and sociological implications of criminal and delinquent behavior.

Examination of problems, programs, and issues in prevention and treatment of deviant behavior.

Prerequisite: Soc. 230, or permission of the instructor.

Three credits

Soc. 251. Comparative Social Welfare Systems

Examination of the social welfare institution within a societal and cultural context. Exploration of historical and conflicting views on responsibility for developing measures to cope with social problems in North American, European, Asiatic, and African countries.

Prerequisites: Soc. 101, 102, Psy. 101, 102.

Three credits

Soc. 252. Fields of Social Work

A survey of the main problems of social work and of agencies and methods that have developed to cope with them. The nature and requirements of the different fields of social work.

Prerequisite: Soc. 101 and 102 and Psy. 101 and 102.

Three credits

Soc. 255. Introduction to Social Psychology

A general survey of the field of social psychology. Social factors in human nature; psychology of individual differences; social interaction; collective behavior, psychology of personality; social pathology.

Prerequisite: Soc. 101 and 102 and Psy. 101 and 102.

Three credits

Soc. 260. Personality and Social Structure

Examination of current theories and research bearing upon the relationship between personality and social structure; contributions and convergent development in psychology, anthropology, and sociology.

Prerequisite: Soc. 101 and 102; Soc. 255.

Three credits

Soc. 265. Sociology of Industry

An analysis of the formal and informal social organization of the work plant and of the relationship between modern industrial organization and the community.

Prerequisite: Soc. 101 and 102 and Ec. 101 and 102, or permission of the instructor.

Three credits

Soc. 270. Peoples and Cultures of the World

A survey of the non-Western cultures of the world with an emphasis on one of the following areas: The Middle East, The Far East, South-East Asia, Africa, Australasia, Latin America.

Prerequisite: Soc. 101 and 102.

Three credits

Soc. 275. Sociology of Minorities

A theoretical analysis of inter-group tensions and processes of adjustment with special reference to modern racial, national, and religious conflicts.

Prerequisite: Soc. 101 and 102 and Psy. 101 and 102.

Three credits

Soc. 280. Sociological Theory

The aim of the course is to provide the student majoring in sociology, or in one of the related fields, with a historical background necessary for understanding of the current trends in sociology as well as for clarification of its distinct subject matter, problems, and methods.

Prerequisite: Soc. 101 and 102 and two other courses in sociology or permission of the instructor.

Three credits

Soc. 395-396. Independent Research

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

Prerequisite: Approval of the department chairman is required.

One to three credits

Soc. 397. Seminar

Presentations and discussions of selected topics.

Prerequisite: Approval of the department chairman is required.

One to three credits. (Maximum of three credits per student.)

Personnel of the College

Board of Trustees

Administration

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ALAN DE TROTT
DANIEL J. TROTT
JAMES P. TROTT
J. TROTT

Commitment at Wilkes

The political world is metamorphosed; new remedies must henceforth be sought for new disorders. To lay down extensive but distinct and settled limits to the action of the government; to confer certain rights on private persons, and to secure to them the undisputed enjoyment of those rights; to enable individual man to maintain whatever independence, strength, and original power he still possesses; to raise him by the side of society at large, and uphold him in that position; these appear to me the main objects of legislators in the ages upon which we are now entering.

One set of men can perceive nothing in the principle of equality but the anarchical tendencies that it engenders; they dread their own free agency, they fear themselves. Other thinkers, less numerous but more enlightened, take a different view: beside that track which starts from the principle of equality to terminate in anarchy, they have at last discovered the road that seems to lead men to inevitable servitude. They shape their souls beforehand to this necessary condition; and, despairing of remaining free, they already do obeisance in their hearts to the master who is soon to appear. The former abandon freedom because they think it dangerous; the latter, because they hold it to be impossible.

If I had entertained the latter conviction, I should not have written this book, but I should have confined myself to deploring in secret the destiny of mankind.

ALEXIS DE TOCQUEVILLE
Democracy in America (1840)

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 RICHARD L. PEARSALL
 LOUIS SHAFFER
 CHARLES B. WALLER

Library

MISS ANNETTE EVANS, *Chairman*
 MRS. EBERHARD L. FABER
 JOSEPH J. KOCYAN, M.D.
 MISS MARY R. KOONS
 CHARLES H. MINER, JR.

Planning and Development

LOUIS SHAFFER, *Chairman*
 FRANK W. ANDERSON
 WILLIAM L. CONYNGHAM
 ALFRED EISENPREIS
 THOMAS H. KILEY
 CHARLES H. MINER, JR.
 RICHARD L. PEARSALL
 JOSEPH J. SAVITZ
 AARON WEISS

Faculty-Trustee Committee on Academic Freedom

WILLIAM L. CONYNGHAM
 THOMAS H. KILEY

Ex Officio on all Committees — LOUIS SHAFFER AND
 EUGENE S. FARLEY

Officers of Administration

EUGENE S. FARLEY (1936)
 B.S. (Pennsylvania State)
 M.A., Ph.D. (Pennsylvania)

President

FRANCIS J. MICHELINI (1955)
 B.S. (Seton Hall)
 M.S. (Delaware)
 Ph.D. (Pennsylvania)

Dean of Academic Affairs

RALPH B. ROZELLE (1962)
 B.S. (Wilkes)
 Ph.D. (Alfred)

Director of Graduate Studies

GEORGE F. RALSTON (1946)
 B.A. (North Carolina)
 M.A. (Columbia)

*Dean of Student Affairs
and Dean of Men*

JOHN P. WHITBY (1947)
 B.S. (Bloomsburg)
 M.S. (Columbia)

Dean of Admissions

WALTER H. R. MOHR (1963)
 B.S. (Bloomsburg)
 M.A. (New York)

Director of Development

CHARLES R. ABATE (1966)
 B.S. (Wilkes)

Business Manager

JOHN J. CHWALEK (1946)
 B.S. (East Tennessee)
 M.A. (Columbia)

Director of Placement

THOMAS F. KELLY (1969)
 B.A. (Wilkes)

*Director of Evening and
Summer College*

ALEX PAWLENOK (1967)
 B.S. (Wilkes)

Comptroller

JANE K. LAMPE (1969)
 B.A. (Rosary)
 M.A. Theatre & Public Address (Michigan)
 M.A. Guidance & Counseling (Virginia)

Dean of Women

LINDA HOBROCK (1969)
 B.S. (Bowling Green)
 M.Ed. (Lehigh)

Assistant Dean of Women

ARTHUR J. HOOVER (1955)
 B.S. (Wilkes)
 M.Ed. (Pennsylvania State)

*Assistant to the Dean —
Director of Student Activities*

Date following name is the year of appointment.

Page 210 — OFFICERS OF ADMINISTRATION

B. HOPKINS MOSES (1967) B.A., M.A. (Syracuse) LL.D. (Parsons)	<i>Registrar</i>
SAMUEL M. DAVENPORT, III (1967) B.S. (Wilkes) M.S. (Bucknell)	<i>Director of Alumni Relations</i>
LIVINGSTON CLEWELL (1960) B.S. (Dartmouth)	<i>Director of Public Relations</i>
RICHARD RASPEN (1967) B.S. (Wilkes)	<i>Assistant to the Dean — Director of Financial Aid</i>
HUGO V. MAILEY (1946) B.S. (West Chester) M.A., Ph.D. (Pennsylvania)	<i>Coordinator of Research and Applied Programs in Humanities and Social Sciences</i>
STANLEY J. HOLDEN (1963) B.A. (Brooklyn) Ph.D. (Alfred)	<i>Coordinator of Research in the Sciences</i>

College Services

FRANCES M. SEARS B.A. (Barnard) M.A. (New York)	<i>Director of College Consultation</i>
ROBERT M. KERR B.S. (Bucknell) M.D. (Jefferson)	<i>College Physician</i>
JOSEPH H. KANNER B.A. (Bucknell) M.A. (New School for Social Research)	<i>Director of Testing Service</i>
MILDRED GITTINS	<i>Manager of the Bookstore</i>
NELSON F. CARLE	<i>Superintendent of Buildings and Grounds</i>

Community Services

HUGO V. MAILEY B.S. (West Chester) M.A., Ph.D. (Pennsylvania)	<i>Director of Institute of Regional Affairs</i>
VICTOR BAIZ B.A. (Dickinson) M.A. (Bucknell)	<i>Director of Science, Math Improvement Program</i>

Date following name is the year of appointment.

Faculty

In alphabetical order, with date of appointment following the name.

EUGENE S. FARLEY (1936) B.S. (Pennsylvania State) M.A., Ph.D. (Pennsylvania)	Administration	<i>President</i>
FRANCIS J. DONAHOE (1964) B.A. (LaSalle) Ph.D. (Pennsylvania)	Physics	<i>Professor</i>
BENJAMIN F. FIESTER, JR. (1956) B.A. (Wilkes) M.A. (Bucknell) Ph.D. (Pennsylvania State)	English	<i>Professor</i>
EUGENE L. HAMMER (1953) B.S. (Wheaton) M.A. (Northwestern) Ed. D. (Columbia)	Education	<i>Professor</i>
STANLEY J. HOLDEN (1963) B.A. (Brooklyn) Ph.D. (Alfred)	Physics	<i>Professor</i>
RUTH W. JESSEE (1952) B.S., M.A. (Columbia) Ed. D. (Pennsylvania)	Nursing Education	<i>Professor</i>
BRONIS KASLAS (1949) L.L.B. (Kaunas, Lithuania) M.A., Ph.D. (Strasbourg)	History	<i>Professor</i>

DAVID M. LEACH (1969) B.A. (Whitman) Ph.D. (Rochester)	History	Professor
HUGO V. MAILEY (1946) B.S. (West Chester) M.A., Ph.D. (Pennsylvania)	Political Science	Professor
FRANCIS J. MICHELINI (1955) B.S. (Seton Hall) M.S. (Delaware) Ph.D. (Pennsylvania)	Biology	Professor
JAROSLAV G. MORAVEC (1963) L.L.D. (Prague, Czechoslovakia) Ph.D. (Boston)	Sociology	Professor
CHARLES B. REIF (1942) B.A., M.A., Ph.D. (Minnesota)	Biology	Professor
ROBERT RILEY (1949) B.A. (Bucknell) Ph.D. (Pennsylvania State)	Psychology	Professor
PHILIP L. RIZZO (1957) B.A., M.A., Ph.D. (Pennsylvania)	English	Professor
SAMUEL A. ROSENBERG (1948) B.A., M.B.A. (Boston) Ph.D. (North Carolina)	Economics	Professor
RALPH B. ROZELLE (1962) B.S. (Wilkes) Ph.D. (Alfred)	Chemistry	Professor
STANKO M. VUJICA (1947) B.A. (Zagreb) M.A. (Innsbruck) Ph.D. (Zagreb)	Philosophy and Religion	Professor
ROBERT E. WERNER (1955) B.A. (Roosevelt) M.S., Ph.D. (Wisconsin)	Economics	Professor
BING K. WONG (1968) B.A. (Kansas State at Pittsburg) M.A., Ph.D. (Illinois)	Mathematics	Professor

Date following name is the year of appointment.

JACK ALLEN (1969) B.S. (Southern California) M.A. Education (Columbia) M.A. English (Wyoming) Ph.D. (SUNY, Buffalo)	Education	Associate Professor
JAMES J. BOHNING (1959) B.S. (Valparaiso) M.S. (New York) Ph.D. (Northeastern)	Chemistry	Associate Professor
ALVAN BRUCH (1962) B.S. (Chicago) M.S., Ph.D. (New York)	Physics	Associate Professor
ROBERT S. CAPIN (1959) B.S. (Wilkes) C.P.A. (State of Pennsylvania) M.B.A. (Lehigh)	Accounting	Associate Professor
RICHARD B. CHAPLINE (1959) B.S., M.S. (Juilliard)	Music	Associate Professor
CHESTER E. COLSON (1958) B.S. (Massachusetts School of Art) M.S. (Columbia)	Fine Arts	Associate Professor
HAROLD E. COX (1963) B.A. (William and Mary) M.A., Ph.D. (Virginia)	History	Associate Professor
FRANCK G. DARTE, II (1968) B.A. (Yale) M.S., Ed.D. (Pennsylvania)	Education	Associate Professor
ELWOOD DISQUE (1935) B.A. (Dickinson)	Foreign Languages	Associate Professor
BOYD L. EARL (1963) B.S. (Wilkes) M.S. (Bucknell)	Mathematics	Associate Professor
GEORGE F. ELLIOT (1950) B.A. (Montclair State) M.A. (Clark)	Economics	Associate Professor
WELTON G. FARRAR (1948) B.S., M.S. (Pennsylvania)	Economics	Associate Professor

Date following name is the year of appointment.

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OWEN D. FAUT (1967) B.S. (Muhlenberg) Ph.D. (Massachusetts Institute of Technology)	Chemistry	Associate Professor
WILLIAM R. GASBARRO (1958) B.S. (Juilliard) M.A. (Columbia)	Music Education	Associate Professor
ALFRED S. GROH (1947) B.A. (Syracuse) M.A. (Columbia)	English	Associate Professor
STANLEY B. KAY (1964) B.A. (Western Reserve) M.A. (Michigan) Ph.D. (Ohio)	Philosophy and Religion	Associate Professor
GRACE C. KIMBALL (1963) B.A. (Rochester) Ph.D. (Cornell)	Biology	Associate Professor
JOHN E. KIMBER, JR. (1969) B.S., Ph.D. (Massachusetts Institute of Technology)	Mathematics	Associate Professor
SHASHANKA S. MITRA (1969) B.S., M.S. (Calcutta, India) Ph.D. (Washington)	Mathematics	Associate Professor
THOMAS J. MIZIANTY (1965) B.S. (Scranton) M.S., Ph.D. (Delaware)	Biology	Associate Professor
ROBERT E. OGREN (1963) B.A. (Wheaton) M.S. (Northwestern) Ph.D. (Illinois)	Biology	Associate Professor
JOHN G. REESE (1955) B.S., M. Ed. (Pennsylvania State)	Physical Education	Associate Professor
THOMAS R. RICHARDS (1943) B.S. (Pennsylvania State) M.S. (Bucknell)	Mathematics	Associate Professor
FRANCIS J. SALLEY (1950) B.S. (St. Joseph's) M.S. (Pennsylvania)	Chemistry	Associate Professor

Date following name is the year of appointment.

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LISELOTTE M. SCHMIDT (1967) B.M. (Converse) M.A. (NYU) M.M. (Manhattan) Ed.D. (Columbia)	Music	Associate Professor
WILLIAM R. STINE (1965) B.S. (Union) Ph.D. (Syracuse)	Chemistry	Associate Professor
HOWARD A. SWAIN, JR. (1960) B.S. (Grove City) Ph.D. (Pennsylvania)	Chemistry	Associate Professor
DONALD W. TAPPA (1965) B.S. (Brooklyn) M.A. (Williams) Ph.D. (Yale)	Biology	Associate Professor
CROMWELL E. THOMAS (1946) B.S. (Washington and Lee)	Engineering	Associate Professor
NADA K. VUJICA (1947) B.A., M.A. (Zagreb) M.A. in L.S. (Marywood)	Library	Associate Professor
ROBERT A. WEST (1962) B.A. (Bucknell) M.A. (Columbia)	Education	Associate Professor
REED D. ACHESON (1969) B.A. (Monmouth) Ph.D. (Cincinnati)	Biology	Assistant Professor
FRANK C. ALLEN (1969) B.A. (Maryland) M.A. (New York)	English	Assistant Professor
FRANK G. BAILEY (1968) B.S. (Pennsylvania) M.S. (Stevens) M.A. (Columbia) Ph.D. (Polytechnic Institute of Brooklyn)	Physics	Assistant Professor
MICHAEL J. BARONE (1964) B.S. (Wilkes) M.S. (Bucknell)	Education	Assistant Professor

Date following name is the year of appointment.

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ANGEL BELIC (1968) LL.D. (Zagreb) Ph.D. (Rome, Italy)	Foreign Languages	Assistant Professor
JAMES P. BERG (1965) B.A. (Harvard) B.D. (Lutheran Seminary) M.A. (Pennsylvania)	History	Assistant Professor
DALE ALLAN BUEHLER (1962) B.A. (Franklin and Marshall) M.S. in L.S. (Drexel Institute of Technology)	Library	Assistant Professor
ARTHUR D. CHESLER (1969) B.A., M.A. (Rutgers)	Economics	Assistant Professor
RUTH E. COPLAN (1968) B.A. (Cornell) M.A. (Virginia) Ph.D. (Pennsylvania)	English	Assistant Professor
JORGE E. DE CUBAS (1966) B.A., LL.D., P.L.D. (Havana)	Foreign Languages	Assistant Professor
E. SHELDON CURTIS (1952) B.S.C. (Washington and Lee)	Accounting	Assistant Professor
WARREN E. DEARMENT (1964) B.A. (Dickinson) M.A. (Pittsburgh)	English	Assistant Professor
JAMES G. DECOSMO (1962) B.S. (West Chester) M.S. (Adelphi)	Mathematics	Assistant Professor
ROBERT DEYOUNG (1960) B.S. (Rhode Island) M.A. (Columbia)	Economics	Assistant Professor
BERENICE D'VORZON (1968) B.F.A. (Cranbrook Academy of Art) M.A. (Columbia)	Fine Arts	Assistant Professor
THEODORE J. ENGEL (1966) B.B.A., M.A. (Miami)	Business Administration	Assistant Professor
MAHMOUD H. FAHMY (1968) B.A. (Alexandria, Egypt) M.A. (Columbia)	Education	Assistant Professor

Date following name is the year of appointment.

FACULTY — Page 217

H. CUTLER FALL (1969) B.A. (Brown University) M.A. (Yale University)	Music	Assistant Professor
LORETTA FARRIS (1966) B.S. (Bucknell) M.A. (Marywood)	Library	Assistant Professor
M. JOSEPH FINNERAN (1965) B.S. (Scranton) M.S. in L.S. (Drexel Institute of Technology)	Library	Assistant Professor
RICHARD A. FULLER (1969) B.S. (New York) M.A. (Columbia)	Fine Arts	Assistant Professor
HERBERT GARBER (1965) B.A. (New York) M.A. (Columbia)	Music	Assistant Professor
GEORGE GERA (1958) B.S. (Bloomsburg) M.A. (Columbia)	Business Education	Assistant Professor
CHARLES S. GURDIN, JR. (1969) B.A. (Michigan) J.D. (Toledo)	Business Administration	Assistant Professor
STANLEY S. GUTIN (1959) B.A., M.A. (Maryland)	English	Assistant Professor
WILBUR F. HAYES (1967) B.A. (Colby) M.S., Ph.D. (Lehigh)	Biology	Assistant Professor
ROBERT J. HEAMAN (1969) B.A. (Detroit) M.A. (Michigan)	English	Assistant Professor
LEVERE C. HOSTLER (1967) B.S. (Massachusetts Institute of Technology) M.S., Ph.D. (Stanford)	Physics	Assistant Professor
ELLEN D. JACOBS (1969) B.A. (Chicago) M.S. (Illinois Institute of Technology)	Fine Arts	Assistant Professor

Date following name is the year of appointment.

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WALTER KABY (1968) B.S., M.S. (Kharkov Institute of Technology)	Engineering	Assistant Professor
THOMAS KASKA (1966) B.A. (Wilkes) M.A. (Duquesne)	English	Assistant Professor
FREDERICK J. KROHLE (1965) B.A. (Wilkes) M.S. in L.S. (Drexel Institute of Technology)	Library	Assistant Professor
JOHN N. LABOWS (1967) B.S. (Lafayette) Ph.D. (Cornell)	Chemistry	Assistant Professor
CHARLOTTE V. LORD (1962) B.S. (New York) M.A. English (Bucknell) M.A. Italian (Middlebury)	English	Assistant Professor
HILDA A. MARBAN (1969) M.A. (Trinity) Ph.D. (Havana)	Foreign Languages	Assistant Professor
WILLIAM J. MISTICHELLI (1963) B.A. (La Salle) M.A. (Pennsylvania)	English	Assistant Professor
LEROY W. MORROW (1967) B.A. (Washington & Jefferson) Ph.D. (Wisconsin)	Physics	Assistant Professor
UMID R. NEJIB (1965) B.S. (Baghdad) M.S., Ph.D. (Carnegie)	Physics and Engineering	Assistant Professor
WALTER H. NIEHOFF (1968) B.A. (Lafayette) M.A. (Pennsylvania State)	Political Science	Assistant Professor
RICHARD S. ORLOWSKI (1969) B.A. (Bucknell) M.A. (Delaware)	Economics	Assistant Professor
WALTER A. PLACEK, JR. (1969) B.S. (Wilkes) M.Ed. (Pennsylvania State)	Physics	Assistant Professor

Date following name is the year of appointment.

FACULTY — Page 219

RONALD G. RAINEY (1965) B.S., M.Ed. (Pennsylvania State)	Physical Education	Assistant Professor
JOSE M. RIBAS (1961) B.A., LL.B. (Barcelona) Ph.D. (Madrid)	Foreign Languages	Assistant Professor
J. PHILIP RICHARDS (1962) B.F.A. (Syracuse)	Fine Arts	Assistant Professor
JAMES P. RODECHKO (1968) B.A. (Hofstra) M.A., Ph.D. (Connecticut)	History	Assistant Professor
JOSEPH H. SALSURG (1959) B.A. (Bucknell)	Mathematics	Assistant Professor
ROSENDO E. SANTOS, JR. (1968) B.M. (Philippines) M.M. (Catholic University of America)	Music	Assistant Professor
DORIS B. SARACINO (1960) B.S., M.S. (East Stroudsburg)	Physical Education	Assistant Professor
JAMES J. SASSO (1969) B.A. (Colgate) M.A. (Connecticut) Ph.D. (Boston)	Philosophy	Assistant Professor
ROLAND C. SCHMIDT, JR. (1962) B.S. (Bloomsburg) M.S. (Scranton)	Physical Education	Assistant Professor
KUO-KONG SHOW (1966) B.A. (Taiwan) M.A. (Pennsylvania)	History	Assistant Professor
J. GEORGE SILES (1963) B.A. (Wilkes) M.S. (Scranton)	Education	Assistant Professor
HERBERT B. SIMON (1969) B.A., M.A. (New York)	Fine Arts	Assistant Professor
RICHARD J. STEPHENSON (1969) B.A. English (Montana) B.A. French (Montana) Ph.D. (SUNY, Buffalo)	English	Assistant Professor

Date following name is the year of appointment.

ROBERT D. STETTEN (1968) B.A. (Lehigh) M.A. Psychology (Iowa) M.A. Political Science (Iowa)	Psychology	Assistant Professor
YASUSHI SUGIYAMA (1967) B.A., M.A. (Florida) Ph.D. (Maryland)	Political Science	Assistant Professor
WILLIAM G. SWARTCHILD, III, (1969) B.A. (Harvard) M.A., Ph.D. (Columbia)	English	Assistant Professor
LEE C. TERRY (1968) B.A. (Southern Methodist) Ph.D. (Texas)	English	Assistant Professor
JAMES M. TOOLE (1968) B.S. (Pennsylvania State) M.S. (Wilkes) Ph.D. (Pennsylvania State)	Physics	Assistant Professor
PAUL A. TORELLI (1969) B.A. (LaSalle) M.S. (Northwestern)	Mathematics	Assistant Professor
PHILIP R. TUHY (1960) B.A. (Valparaiso) M.G.A. (Pennsylvania)	Political Science	Assistant Professor
MARGARET M. VANDERHAAR (1969) B.A. (Ursuline) M.A. (Chicago) Ph.D. (Tulane)	English	Assistant Professor
DONOVAN H. VAN OSDOL (1969) B.A. (Earlham) M.A., Ph.D. (Illinois)	Mathematics	Assistant Professor
STANLEY H. WASILESKI (1945) B.S. (Pittsburgh) M.S. (Bucknell)	Mathematics	Assistant Professor
RAYMOND M. WEINSTEIN (1969) B.B.A. (City College of New York) M.A., Ph.D. (UCLA)	Sociology	Assistant Professor
PAUL R. WERNER (1946) B.S. (Susquehanna) M.A. (New York)	Accounting	Assistant Professor

Date following name is the year of appointment.

DEAN G. WHITE (1968) B.A., M.A. (Virginia) Ph.D. (Dublin, Ireland)	History	Assistant Professor
CHARLES E. WILKS (1969) B.A., M.A., Ph.D. (Texas)	Mathematics	Assistant Professor
ROY E. WILLIAMS (1967) B.A. (Eastern Nazarene) S.T.B. (Temple) Ph.D. (Drew)	Religion	Assistant Professor
LIZA BELIC (1969) B.A., M.A. (Zagreb)	Foreign Languages	Instructor
JOSEPH T. BELLUCCI (1967) B.S. (Scranton) M.Ed. (Lehigh)	Education	Instructor
STERLING W. BONAWITS (1969) B.S.N.Ed. (Wilkes)	Psychology and Nursing Education	Instructor
PATRICIA M. BOYLE (1966) B.A. (Wilkes) M.A. (Pennsylvania)	English	Instructor
ROBERT S. BRANDSCHAIN (1968) B.A. (Vermont) M.Ed. (Temple)	Education	Instructor
BARBARA BUCKMAN (1968) B.S., M.S. (Wilkes)	Chemistry	Instructor
MARIE BYCZKOWSKI (1968) B.A. (Douglass) M.A. in L.S. (Rutgers)	Library	Instructor
W. CARVER COLLINS (1968) B.A. (Pittsburgh)	English	Instructor
LORNA C. DARTE (1969) B.A. (George Washington) M.S. in L.S. (Drexel Institute of Technology)	Library	Instructor

Date following name is the year of appointment.

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LILY J. DAVIS (1968) B.S. (Millersville) M.Ed. (Temple)	Education	<i>Instructor</i>
EUGENE S. DOMZALSKI (1969) B.S. (Wyoming)	Physical Education	<i>Instructor</i>
JEANNETTE GARBER (1967) B.A. (Carleton) M.A. (Columbia)	Education	<i>Instructor</i>
EDWARD V. GEIST (1969) B.A. (Columbia) M.A. (Virginia)	English	<i>Instructor</i>
R. MICHAEL GOLD (1968) B.A. (Pennsylvania) M.A. (Chicago)	English	<i>Instructor</i>
JON R. C. HOBROCK (1967) B.A. (Kenyon) M.S. (Lehigh)	Psychology	<i>Instructor</i>
BETTY L. JAHR (1968) B.A. (St. Xavier) M.S. (Ohio)	Mathematics	<i>Instructor</i>
EDWIN L. JOHNSON (1966) B.A. (Wilkes) M.A. (Bucknell)	Education	<i>Instructor</i>
JOSEPH H. KANNER (1949) B.A. (Bucknell) M.A. (New School for Social Research)	Psychology	<i>Instructor</i>
THOMAS F. KELLY (1969) B.A. (Wilkes)	Economics	<i>Instructor</i>
ANNE V. KISH (1960) B.A. (Wilkes) M.A. (Scranton)	English	<i>Instructor</i>
JUDITH E. KRAVITZ (1964) B.S. (Pennsylvania State) M.Ed. (Temple)	Mathematics	<i>Instructor</i>
ARVID W. LEKSTROM (1969) B.M., M.A. (Boston)	Foreign Languages	<i>Instructor</i>

Date following name is the year of appointment.

FACULTY — Page 223

MARY LOU LOVETTE (1968) B.S. (SUNY, Cortland) M.A. (SUNY, Binghamton)	Foreign Languages	<i>Instructor</i>
JOHN F. MEYERS (1967) B.A. (Minnesota) M.A. (Clark)	History	<i>Instructor</i>
INGER MILLER (1968) Baccalaureate, Aarhus Cathedral School (Denmark) B.A. (Wilkes) M.A. (Pennsylvania State)	Foreign Languages	<i>Instructor</i>
CHESTER N. MOLLEY (1964) B.A. (Wilkes) M.A. (Bucknell)	English	<i>Instructor</i>
WARD F. MOWERY (1968) B.S. (Ohio State) M.M., M.S. (Illinois)	Music	<i>Instructor</i>
LEOTA NEVIL (1968) B.S. in Ed. (Bloomsburg)	Library	<i>Instructor</i>
RAYMOND D. O'CONNOR (1968) B.A. (Iona) M.A. English (Pittsburgh) M.A. Sociology (Duquesne)	Sociology	<i>Instructor</i>
PATRICIA Y. PISANESCHI (1969) B.A. (Wilkes) M.S. (Pennsylvania State)	Psychology	<i>Instructor</i>
RICHARD PROBERT (1968) B.S. (Wilkes) M.M.E. (Indiana)	Music	<i>Instructor</i>
ALBERT W. RINEHIMER (1968) B.A. (Wilkes)	Library	<i>Instructor</i>
RUTH T. ROBERTS (1955) B.A. (Goucher)	English	<i>Instructor</i>
SARAH SCHONWETTER (1962) B.S., M.S. (Temple)	Biology	<i>Instructor</i>

Date following name is the year of appointment.

ALBERT C. SERZAN (1967) B.A. (Yale) M.A.T. (Chicago)	Foreign Languages and Mathematics	<i>Instructor</i>
RICHARD E. SOURS (1965) B.S. (Towson) M.S. (Michigan State)	Mathematics	<i>Instructor</i> (on leave)
ANTON STEINBRECHER (1969) Fulbright Exchange Teacher-Austria	Foreign Languages	<i>Instructor</i>
CHARLES H. SWEENEY (1966) B.A. (Mexico City) M.A. (Middlebury)	Foreign Languages	<i>Instructor</i>
JOHN J. SWOBODA (1968) B.S. (Rhode Island) M.A. (Connecticut)	Music	<i>Instructor</i>
PAUL P. ZAVADA (1966) B.S. (Wilkes) C.P.A. (State of Pennsylvania)	Accounting	<i>Instructor</i>

Part-Time Faculty

EDWARD AUGUSTINE B.S. (Bloomsburg) M.S. (Scranton)	Business Administration	<i>Instructor</i>
CLIFFORD E. BALSHAW F.A.G.O. (Quilmant Organ School)	Music	<i>Instructor</i>
ABRAHAM D. BARRAS B.A. (Columbia) B.Rel.Ed., MHL., DHL. (Jewish Theological Seminary)	Religion	<i>Instructor</i>
JOSEPH CHMIOLA B.A. (Wilkes)	Business Administration	<i>Instructor</i>
ANTONIA DOLBEAR B.S. (Misericordia)	Secretarial Studies	<i>Instructor</i>

Date following name is the year of appointment.

CAROLYN D'ZURKO B.A. (Wellesley)	Business Administration	<i>Instructor</i>
EDGAR W. HUGHES, JR. B.A. (Lafayette) M.A. (Scranton)	History	<i>Instructor</i>
NATHAN HYMAN B.A., LL.B. (Cornell)	Business Administration	<i>Instructor</i>
WILLIAM JOHNS B.S. (Wilkes)	Business Administration	<i>Instructor</i>
JOSEPH KATZ B.A. (Brooklyn) M.A. (Columbia)	Psychology	<i>Instructor</i>
MARY KERR B.A. (Wellesley) M.A. (Rochester)	English	<i>Instructor</i>
ISADORE KRASNO B.S., M.S. (Rutgers) Ph.D. (Pennsylvania)	Psychology	<i>Instructor</i>
ANNE C. LIVA (Juilliard)	Music	<i>Instructor</i>
FRANCIS MICOCCHI B.A. (King's) M.B.A. (Scranton)	Business Administration	<i>Instructor</i>
HAROLD MILLER B.S. (Scranton)	Retailing	<i>Instructor</i>
IRWIN MORRISON B.B.A. (City College of New York) LL.B. (Brooklyn) C.P.A. (State of New York)	Accounting	<i>Instructor</i>
ANDREW PALENCAR B.F.A. (Pratt) M.A. (Columbia)	Theater Arts	<i>Instructor</i>
MURRAY POPKY B.S. (Pennsylvania) Traphagen School of Fashion	Theater Arts	<i>Instructor</i>

MARTIN SAMUELS B.E. (Vanderbilt University)	Business Administration	<i>Instructor</i>
CASIMIR TYBURSKI B.A. (Delaware)	English	<i>Instructor</i>
SHELDON VALE B.A. (Pennsylvania State)	Business Administration	<i>Instructor</i>
BARBARA WELLIVER B.A. (Susquehanna) M.S.W. (Washington) M.Sc.E. (Temple)	Sociology	<i>Instructor</i>
MYVANWY WILLIAMS B.A. (New York State) M.A. (Middlebury)	English	<i>Instructor</i>

Faculty Committees

The following are the faculty committee assignments made for the academic year 1969-1970. The President is *ex officio* on all committees except committees on Academic Freedom.

Academic Standing

Francis J. Michelini, *Chairman*
Robert S. Capin
Robert DeYoung
Benjamin Fiester, Jr.
Herbert Garber
Eugene L. Hammer
Stanley Holden
John N. Labows
Jane K. Lampe
B. Hopkins Moses
George F. Ralston
Charles B. Reif
Roland C. Schmidt, Jr.
John P. Whitby

Admissions

Ralph B. Rozelle, *Chairman*
Frederic E. Bellas
John J. Chwalek
George Elliot
Mahmoud H. Fahmy
J. Philip Richards
Robert C. Riley
John P. Whitby

Athletic

Robert West, *Chairman*
Welton Farrar
Arthur J. Hoover
John G. Reese
Thomas R. Richards
Howard A. Swain, Jr.
Charles Sweeney
Cromwell E. Thomas
Stanko Vujica
John P. Whitby

Calendar-Faculty Handbook

Hugo V. Mailey, *Chairman*
Francis J. Michelini
B. Hopkins Moses

Curriculum

Robert C. Riley, *Chairman*
James Berg
James DeCosmo
Francis Donahoe
William R. Gasbarro
Hugo V. Mailey
Francis J. Michelini, *Ex Officio*
Robert Ogren
Samuel A. Rosenberg
J. George Siles
William Stine
Lee C. Terry
Stanko Vujica

Library

Robert E. Werner, *Chairman*
Dale E. Buehler
Elwood Disque
Levere C. Hostler
Charlotte V. Lord
Raymond D. O'Connor
James P. Rodechko
Yasushi Sugiyama
Nada Vujica

Financial Aid

James Bohning, *Chairman*
Michael Barone
Warren E. DeArment
Wilbur Hayes
John F. Meyers
Umid Nejib
Richard Raspen
John P. Whitby

Faculty Committees

The President is *ex officio* on all committees except committees on Academic Freedom.

Graduate Studies

Ralph B. Rozelle, *Chairman*
James Bohning
Alvan Bruch
Franck G. Darte, II
Francis Donahoe
Benjamin Fiester, Jr.
Eugene L. Hammer
David M. Leach
Charles B. Reif
Philip Rizzo
Samuel A. Rosenberg
Donald Tappa
Robert Werner
Bing K. Wong

Student Life

George F. Ralston, *Chairman*
Robert S. Capin
Theodore J. Engel
Arthur J. Hoover
John N. Labows
Jane K. Lampe
Richard Probert
Richard Raspen
James M. Toole

Research and Service

Stanley Holden, *Chairman*
Hugo V. Mailey
Francis J. Michelini
Ralph B. Rozelle

Student Publications

Stanley B. Kay, *Chairman*
Patricia Boyle
Chester Colson
Thomas Moran
Franck G. Darte, II

Academic Freedom

a. MEDIATION

Samuel A. Rosenberg
Robert C. Riley
Benjamin Fiester, Jr.
Ralph B. Rozelle, *Alternate*

b. FACULTY-TRUSTEE

Robert E. Werner
Eugene L. Hammer
Robert S. Capin, *Alternate*

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EVENING COLLEGE SESSION

FALL SEMESTER

1969-1970

Wilkes College Bulletin



WILKES-BARRE, PENNSYLVANIA

Wilkes College

Bulletin



EVENING SESSION

Spring Semester

1969-1970

WILKES-BARRE, PENNSYLVANIA

Phone 624-4631. (After 5:00 p.m., call 624-4630)

An Educated Man

*seeks truth, for without truth there can be
no understanding;*

*possesses vision, for he knows that vision
precedes all great attainments;*

*is aware of the diversity of ideas and beliefs
that exist among men;*

*has faith in the power of ideals to shape the
lives of men;*

*knows that man's progress requires intellec-
tual vigor, moral courage, and physical
endurance;*

*cultivates inner resources and spiritual
strength, for they enrich his daily liv-
ing and sustain him in times of crisis;*

has ethical standards by which he lives;

respects the religious convictions of all men;

*participates constructively in the social, eco-
nomic, and political life of the com-
munity;*

*communicates ideas in a manner that assures
understanding, for understanding unites
men in their search for truth.*

Formulated and adopted by the
faculty as a guide to learning.

CALENDAR

Registration for the Evening College is as follows:

Wednesday, September 10.....9:00 a.m. to 8:00 p.m.

Thursday, September 11.....9:00 a.m. to 8:00 p.m.

Friday, September 12.....9:00 a.m. to 8:00 p.m.

Saturday, September 13.....9:00 a.m. to 12:00 noon

Monday, September 15.....Classes begin at 6:00 p.m.

Friday, October 3.....Report on incomplete grades

Saturday, October 25.....Progress reports

Tuesday, November 25.....Thanksgiving recess, 10:00 p.m.

Monday, December 1.....Classes resume, 6:00 p.m.

Thursday, December 18.....Christmas recess, 10:00 p.m.

Monday, January 5.....Classes resume, 6:00 p.m.

Thursday, January 8.....Classes end, 10:00 p.m.

Monday, January 12, through

Thursday, January 15.....Examination period

For further information write to:

Thomas F. Kelly

Director of Evening and Summer College

Wilkes College

Wilkes-Barre, Pennsylvania 18703

Phone 824-4651. (After 5:00 p.m., call 824-4656)

Wilkes College

Wilkes College had its beginnings in 1933 when Bucknell University, responding to a request of community leaders, established its Junior College in Wilkes-Barre. On June 26, 1947, Bucknell University Junior College came to an end and Wilkes College received its charter as a four-year liberal arts college. The College has grown steadily to its current enrollment of approximately 2400 full-time day students and 1000 evening students engaged in undergraduate, graduate, and continuing education programs.

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

AN INDEPENDENT COLLEGE

It was inevitable that the new college should be non-sectarian, for its purpose was to serve all students equally and its supporters wished the College to integrate itself with all constructive efforts in the community. It was believed that these ends could be served best by an independent college that was interdenominational in its influence and non-denominational in its control.

FREEDOM OF INQUIRY

Years have passed since Bucknell gave the control of the Junior College to a local Board of Trustees, guided by the late Gilbert S. McClintock, and events of these years demonstrate the wisdom of their decision. With responsibility came a pressing desire to strengthen the work of the faculty, united in their faith that the intellectual and spiritual resources of the student are vigorous where the creative mind is free.

UNITY AMIDST DIVERSITY

A college that wishes to serve all groups requires both a definite philosophy and a working policy. Wilkes College has been guided by the thought that unity in our community, our nation, and our world requires not only great vision but warm understanding of peoples. In its small circle Wilkes College brings together students of many faiths,

backgrounds, and countries. It encourages them to maintain their convictions and their loyalties. It encourages them to create friendships based upon respect for differences, and to adhere to those ideals that create unity and good will amidst diversity.

While academic work is the basis of the College program, the faculty recognizes that academic training will be of little importance unless students emerge as men and women of strong faith and fine character. In the words of John Stuart Mill, "Before you can make men doctors and lawyers, you must first make them men."

Wilkes College is committed to education as a way of life.

A COOPERATIVE EFFORT

The original concept of community effort has been strengthened with the passing of the years and with growing experience. It has been clearly demonstrated that the students, the College, and the community all benefit from cooperative effort. This cooperative relationship, with its emphasis on trained intelligence and extended planning, has resulted in cooperative action.

DECADES OF GROWTH

Because of their interest and faith, friends have multiplied their support during the past decades and the campus has expanded steadily so that it now includes most of the properties facing the River Common. Fortunately, a growing endowment has kept pace with the expansion of the campus.

ACCREDITATION

Wilkes is accredited by the Department of Public Instruction of the State of Pennsylvania and the Middle States Association of Colleges and Secondary Schools. The Accounting curriculum has been accredited by the Certified Public Accounting Examiners of the State of New York.

EVENING COLLEGE

INFORMATION

CURRICULA

UNDERGRADUATE PROGRAM

To meet the needs of ambitious men and women who desire the help which may come from college instruction, Wilkes College offers a wide program of Evening courses from which selections may be made according to individual tastes and requirements.

The courses offered by the Evening College 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 the study of problems relating to business administration and the economy of the nation and the world.
5. Those who wish to prepare for the profession of accounting and aspire to qualify for a 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.
7. Men and women seeking a college degree through attendance in the Evening College.

Except where designated in the course schedule, classes for courses offered in the evening will be scheduled on Monday-Wednesday or Tuesday-Thursday between the hours of 6:00 p.m. and 10:00 p.m.

The College reserves the right to withdraw any course for which there is insufficient enrollment. Students who have registered for courses that may be cancelled because of insufficient enrollment will be notified as promptly as possible.

RESEARCH AND GRADUATE CENTER

The Research and Graduate Center is an excellently equipped and staffed installation that is an integral part of the College complex. During the school term the Center will continue the various public and private research projects now in progress.

LABOR-MANAGEMENT TRAINING COURSES

To establish a climate for industrial redevelopment the College has pioneered a Labor-Management Training Program in which the needs of the individual and the company are analyzed.

Plans are arranged in consultation with officials, foremen, and other employees and are designed to meet the general and specific requirements of the particular group. Where several firms are confronted with common problems, special classes are organized to include representation of several companies.

INSTITUTE OF REGIONAL AFFAIRS

The Institute of Regional Affairs is a multi-purpose college organization which views regional problems as belonging to no simple academic discipline, but rather as a contemporary phenomenon spilling into many disciplines. The Institute was created to assure coordination of varied efforts in order to better understand and resolve complex and contemporary problems.

Its four-fold purpose is: education and training, community information, research, and consultation.

The underlying philosophy of the Institute of Regional Affairs is cooperation, rather than reform of partisanship.

FACILITIES

The College is located in Wilkes-Barre, Pennsylvania, in the heart of the picturesque and historic Wyoming Valley. This ideal location in the foothills of the Poconos offers abundant cultural and recreational facilities and affords close proximity and convenient transportation to the metropolitan areas of New York and Philadelphia.

THE LIBRARY

The Library will post its Fall schedule at the beginning of the semester.

Evening College students may obtain a Library Card at the Circulation Desk of the Library.

BOOKSTORE

The Bookstore offers a complete stock of necessary textbooks and supplies. It will be open as follows:

Monday through Friday 9:00 a.m. to 11:45 a.m.
1:00 p.m. to 4:45 p.m.
Monday and Tuesday Evenings 6:00 p.m. to 7:45 p.m.
Saturday 9:00 a.m. to 11:45 a.m.

EXPENSES

Tuition — \$50 per semester hour credit.

All charges must be paid at the time registration forms are processed.

Books and supplies may be purchased at the bookstore and must be paid for at the time of purchase.

WITHDRAWAL

A student who withdraws from the evening session or drops courses after the first week must receive approval from the instructor and should give prompt written or verbal notice to the Director of the Evening and Summer College in order that their records may not unjustly show failure in courses.

Students in good standing who withdraw from the College will receive a refund of tuition under the following conditions: during the first six weeks of the evening session one-half of the tuition will be refunded upon request to the Director of Evening and Summer College, if the withdrawal is made for adequate and satisfactory reasons. After the first six weeks no refunds are allowed and the student is obligated for the full costs of the term. No student who is suspended or expelled shall be entitled to any refunds.

EVENING COLLEGE

UNDERGRADUATE DIVISION

FALL SEMESTER — 1968-1969

COURSE	DESCRIPTION	DAY & HOURS	ROOM No.	CREDIT HOURS
ACCOUNTING:				
Acct. 101E	Elementary Accounting I	MW 6:30-8:00	Par. 35	3
Acct. 101E-2	Elementary Accounting I	TTH 6:30-8:00	Par. 35	3
Acct. 101E-3	Elementary Accounting I	MW 8:00-9:30	Par. 45	3
Acct. 102E	Elementary Accounting II (Pre: Acct. 101)	MW 8:00-9:30	Par. 35	3
Acct. 111E	Intermediate Accounting I (Pre: Acct. 102)	TTH 6:30-8:00	Par. 25	3
Acct. 201E	Advanced Cost Accounting I (Pre: Acct. 112)	MW 6:30-8:00	Par. 45	3
Acct. 221E	Taxes I (Pre: Acct. 102-202)	TTH 6:30-8:00	Par. 45	3
Acct. 231E	Auditing Practice I (Pre: Acct. 202)	MW 8:00-9:30	Par. 25	3
Acct. 241E	Advanced Accounting I (Pre: Acct. 112)	TTH 8:00-9:30	Par. 35	3
BIOLOGY:				
Bio. 101E	Biological Science I	MW 6:30-8:00	Stark 116	3
Bio. 101E-2	Biological Science I	TTH 6:30-8:00	Stark 116	3
BUSINESS ADMINISTRATION:				
B. A. 209E	Correspondence & Reports (Pre: Eng. 102)	TTH 8:00-9:30	Par. 25	3
B. A. 225E	Corporation Finance (Pre: Econ. 102)	TTH 8:00-9:30	Par. 43	3
B. A. 231E	Business Law — Introduction & Contracts	MW 6:30-8:00	Par. 56	3
B. A. 241E	Life Insurance (Pre: Approval of instructor)	MW 6:30-8:00	Par. 46	3
B. A. 251E	Principles of Management I	TTH 6:30-8:00	Par. 43	3

COURSE	DESCRIPTION	DAY & HOURS	ROOM No.	CREDIT HOURS
ECONOMICS:				
Econ. 101E	Principles of Economics I	TTH 6:30-8:00	Par. 34	3
Econ. 101E-2	Principles of Economics I	TTH 8:00-9:30	Par. 34	3
Econ. 102E	Principles of Economics II (Pre: Econ. 101)	MW 6:30-8:00	Par. 23	3
Econ. 111E	Economic History	MW 8:00-9:30	Par. 23	3
Econ. 201E	Money and Banking (Pre: Econ. 102)	MW 8:00-9:30	Par. 34	3
Econ. 223E	Collective Bargaining (Pre: Econ. 102)	MW 6:30-8:00	Par. 34	3
Econ. 225E	International Trade (Pre: Econ. 102)	TTH 8:00-9:30	Par. 45	3
Econ. 227E	Economic Geography of North America (Pre: Econ. 102)	MW 6:30-8:00	Par. 25	3
Econ. 229E	Comparative Economic Systems (Pre: Econ. 102 or approval of instructor)	MW 8:00-9:30	Par. 46	3
Econ. 231E	Applied General Statistics (Pre: Approval of instructor)	TTH 6:30-8:00	Par. 23	3
Econ. 241E	Economic Analysis (Pre: Econ. 102)	TTH 6:30-8:00	Par. 46	3
Econ. 245E	Consumer Economics (Pre: Econ. 102)	TTH 8:00-9:30	Par. 23	3
EDUCATION:				
Ed. 200E	Educational Psychology (Pre: Psy. 102, Junior standing)	MW 6:30-8:00	Chase 209	3
ENGLISH:				
Eng. 101E	Composition I	MW 6:30-8:00	Bdf. 12	3
Eng. 101E-2	Composition I	MW 8:00-9:30	Bdf. 12	3
Eng. 101E-3	Composition I	TTH 6:30-8:00	Bdf. 12	3
Eng. 102E	Composition II (Pre: Eng. 101)	MW 8:00-9:30	Bdf. 13	3
Eng. 131E	Fundamentals of Speech	TH 6:00-8:00	Bdf. Sem.	2
Eng. 131E-2	Fundamentals of Speech	M 4:00-6:00	Bdf. 12	2
Eng. 151E	Western World of Literature (Pre: Eng. 102)	MW 6:00-8:00	Bdf. 14	4
Eng. 151E-2	Western World of Literature (Pre: Eng. 102)	TTH 6:00-8:00	Bdf. 14	4

COURSE	DESCRIPTION	DAY & HOURS	ROOM No.	CREDIT HOURS
ENVIRONMENTAL SCIENCE:				
Envi. Sci. 101E	Environmental Science- Introductory Earth Science Lab Fee	TTH 8:00-10:00	Stark 112	3
FINE ARTS:				
F.A. 109E	Oil Painting I	MW 8:00-9:30	Con. An. 101	3
HISTORY:				
Hist. 101E	History of Western Civilization I	TTH 8:00-9:30	Stark 204	3
Hist. 101E-2	History of Western Civilization I	MW 8:00-9:30	Stark 204	3
Hist. 101E-3	History of Western Civilization I	MW 8:00-9:30	Stark 306	3
Hist. 107E	American and Pennsylvania History to 1865	TTH 6:30-8:00	Stark 204	3
Hist. 227E	United States Diplomatic History (Pre: Hist. 101, 102, 107, 108)	W 5:30-8:30	H&P Bldg.	3
Hist. 231E	Colonial America (Pre: Hist. 107, 108)	T 5:30-8:30	H&P Bldg.	3
Hist. 297E	Imperial Russia (seminar) (Pre: Approval of Dept. chairman)	M 5:30-8:30	H&P Bldg.	3
JOURNALISM:				
Jour. 101E	Journalism	MW 6:30-8:00	Par. 33	3
MATHEMATICS:				
Math. 100E	Pre-Calculus Mathematics (Pre: two years of high school math)	MW 8:00-10:00	Miner 11	4
Math. 101E	Fundamentals of Mathematics	MW 6:30-8:00	Miner 11	3
Math. 111E	Analysis I (Calculus with Analytic Geometry) (Pre: Math. 105, or both Math 107 and 109, or the equivalent)	TTH 6:00-8:00	Miner 11	4

COURSE	DESCRIPTION	DAY & HOURS	ROOM No.	CREDIT HOURS
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LANGUAGES:

Fr. 101E	Elementary French	MW 8:00-9:30	Kirby 102	3
Ger. 101E	Elementary German	MW 6:30-8:00	Kirby 203	3
Ger. 103E	Intermediate German (Pre: Ger. 102)	MW 8:00-9:30	Kirby 203	3
Russ. 101A	Elementary Russian	TTH 4:00-5:30	Kirby 108	3
Russ. 103E	Intermediate Russian (Pre: Russ. 102)	TTH 6:30-8:00	Kirby 108	3
Span. 101E	Elementary Spanish	TTH 6:30-8:00	Kirby 203	3
Span. 103E	Intermediate Spanish (Pre: Span. 102)	TTH 8:00-9:30	Kirby 203	3

MUSIC:

Mus. 101E	Introduction to the Materials and Literature of Music I	TTH 6:30-8:00	CPA Annex	3
Applied Music	Hours to be arranged			1

NOTE: It is important that all students who register for applied music through the evening college be advised to consult with Mr. William Gasbarro, department chairman, before completing their registration.

NURSING EDUCATION:

N. E. 102E	Trends in Nursing	M 4:00-6:00	Kirby 107	2
N. E. 106E	Supervision and Administration	T 4:00-6:00	Kirby 107	2
N. E. 112E	Field Experience in Supervising or Teaching (Pre: Approval of instructor)	Hours to be arranged		4

PHILOSOPHY:

Phil. 101E	Introduction to Philosophy	TTH 6:30-8:00	H&P Bldg.	3
Phil. 101E-2	Introduction to Philosophy	TTH 8:00-9:30	H&P Bldg.	3

PHYSICAL EDUCATION:

P. E. 105E	Hygiene	T 7:00-8:00	Miner 20	1
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PHYSICS:

Phys. 101E	Physical Science	W 6:30-9:30	Stark 109	3
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COURSE	DESCRIPTION	DAY & HOURS	ROOM No.	CREDIT HOURS
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POLITICAL SCIENCE:

P. S. 101E	Political Science I	MW 6:30-8:00	Par. 43	3
P. S. 205E	State Government (Pre: P.S. 101, 102)	MW 8:00-9:30	Par. 43	3
P. S. 223E	Comparative Government (Pre: P.S. 101, 102)	TTH 8:00-9:30	Par. 46	3

PSYCHOLOGY:

Psy. 101E	General Psychology I	TTH 6:30-8:00	Kirby 102	3
Psy. 101E-2	General Psychology I	TTH 8:00-9:30	Kirby 102	3
Psy. 207E	Child Psychology (Pre: Psy. 101, 102)	MW 6:30-8:00	Kirby 208	3
Psy. 212E	Psychological Tests (Pre: Psy. 101, 102)	MW 8:00-9:30	Kirby 208	3
Psy. 255E	Clinical Psychology (Pre: Psy. 212)	T 6:30-9:30	Kirby 302	3

RETAILING:

Ret. 101E	Principles of Retailing	TTH 8:00-9:30	Kirby 103	3
Ret. 210E	Elements of Merchandise	TTH 6:30-8:00	Kirby 103	3

SECRETARIAL STUDIES:

S. S. 105E	Elementary Shorthand	MW 6:00-8:00	Par. Annex	2
S. S. 107E	Elementary Typing Fee \$10	MW 8:00-10:00	Par. 33	2
S. S. 201E	Advanced Typing Fee \$10	TTH 6:00-7:00	Par. 33	1
S. S. 207E	Advanced Shorthand	TTH 7:00-10:00	Par. 33	3

SOCIOLOGY:

Soc. 101E	Introduction to Sociology and Anthropology	MW 8:00-9:30	Kirby 303	3
Soc. 200E	The Family (Pre: Soc. 101, 102 or permission)	TTH 6:30-8:00	Par. Annex	3
Soc. 251E	Comparative Social Welfare Systems (Pre: Soc. 101, 102 Psy. 101, 102)	TTH 6:30-8:00	Kirby 303	3

GRADUATE DIVISION

FALL SEMESTER — 1969-1970

WILKES COLLEGE GRADUATE PROGRAM

The following graduate courses will be offered and may be applied toward the master's degree. Normal scheduling for the classes is in late afternoon or early evening.

Biology

- | | |
|-------------|------------------------|
| Biology 432 | Comparative Physiology |
| Biology 451 | Invertebrate Biology |

Business Administration

- | | |
|----------------|-----------------------|
| Accounting 503 | Managerial Accounting |
| Economics 505 | Managerial Statistics |
| Economics 473 | Pre-Seminar |

Chemistry

- | | |
|---------------|-------------------------------|
| Chemistry 341 | Elementary Physical Chemistry |
| Chemistry 440 | Quantum Chemistry |
| Chemistry 441 | Advanced Inorganic Chemistry |
| Chemistry 531 | Stereochemistry |

Education

- | | |
|----------------|--|
| Education 403 | Intern Teaching |
| Education 406 | Workshop (Elementary School Staffing) |
| Education 406 | Workshop (Social Studies) |
| Education 413 | Comparative Foundations of Education |
| Education 420 | Tests and Measurements |
| Education 432C | Problems in Elementary Education (Language Arts) |

- | | |
|----------------|--|
| Education 440A | Special Methods in Secondary School Instruction (Biology) — SMIP |
| Education 440B | Special Methods in Secondary School Instruction (Chemistry) — SMIP |
| Education 440C | Special Methods in Secondary School Instruction (Environmental Science) — SMIP |
| Education 440F | Special Methods in Secondary School Instruction (Mathematics) — SMIP |
| Education 440G | Special Methods in Secondary School Instruction (Physics) — SMIP |
| Education 441 | Secondary School Curriculum |

English

- | | |
|-------------|-----------------------------|
| English 310 | Medieval English Literature |
| English 370 | Modern Poetry |

History

- | | |
|-------------|--|
| History 327 | History of the Foreign Policy of the United States |
| History 331 | Colonial America |
| History 497 | Imperial Russia — Seminar |

Mathematics

- | | |
|----------|------------------------------------|
| Math 311 | Functions of a Real Variable I |
| Math 331 | Introduction to Abstract Algebra I |
| Math 343 | Introduction to Geometry |
| Math 470 | Readings in Mathematics |

Physics

- | | |
|-------------|--------------------------------|
| Physics 333 | Crystalline Anisotropy |
| Physics 401 | Topics in Mathematical Physics |
| Physics 511 | Analytical Mechanics |
| Physics 551 | Quantum Mechanics II |

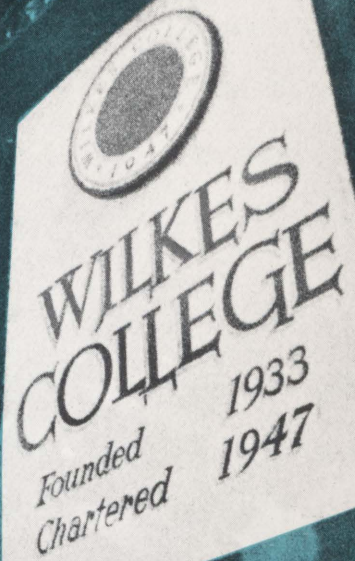
TEMPLE UNIVERSITY GRADUATE PROGRAM

Wilkes College cooperates with Temple University in offering a General Education Program for Teachers (G.E.P.T.) leading to the Degree of Master of Science in Education. The program is open to anyone who meets the academic requirements and is interested in exposure to a broad-base general education program. The following course is being offered this semester:

G.E. 421 Changing Perspectives in Natural Sciences

REGISTRATION IS HELD DURING REGULAR EVENING SCHOOL REGISTRATION HOURS IN THE GRADUATE OFFICE, ROOM 136, OF STARK HALL.

FURTHER INFORMATION ON ALL GRADUATE COURSES CAN BE OBTAINED AT THE GRADUATE SCHOOL OFFICE AT WILKES COLLEGE (824-4651, Ext. 243).



Evening College
Bulletin
SPRING SEMESTER
1970

WILKES-BARRE, PENNSYLVANIA

CALENDAR

Registration for the Evening Class is as follows:

Monday, January 19 9:00 a.m. to 8:00 p.m.
Tuesday, January 20 9:00 a.m. to 8:00 p.m.
Wednesday, January 21 9:00 a.m. to 8:00 p.m.
Thursday, January 22 9:00 a.m. to 8:00 p.m.
Friday, January 23 2:00 p.m. to 8:00 p.m.
Saturday, January 24 9:00 a.m. to 12 noon

Monday, January 26 Classes begin at 6:00 p.m.
Saturday, February 21 Submit incomplete grades
Saturday, March 7 Progress Reports
Thursday, March 24 Easter recess begins at 10:00 p.m.
Wednesday, April 6 Easter recess ends at 6:00 p.m.
Thursday, May 14 Classes end at 10:00 p.m.
Monday, May 18 to Thursday, May 21 Examination period

For further information write to:

Thomas F. Kelly
Director of Evening and Summer College
Wilkes College
Wilkes-Barre, Pennsylvania 18703
Phone: 824-4651. After 5:00 p.m., call 824-4656.

EUGENE SHEDDEN FARLEY LIBRARY
WILKES COLLEGE
WILKES-BARRE, PA. 18703

Wilkes College

Bulletin



EVENING SESSION

Spring Semester

1970

WILKES-BARRE, PENNSYLVANIA

An Educated Man

*seeks truth, for without truth there can be
no understanding;*

*possesses vision, for he knows that vision
precedes all great attainments;*

*is aware of the diversity of ideas and beliefs
that exist among men;*

*has faith in the power of ideals to shape the
lives of men;*

*knows that man's progress requires intellec-
tual vigor, moral courage, and physical
endurance;*

*cultivates inner resources and spiritual
strength, for they enrich his daily liv-
ing and sustain him in times of crisis;*

has ethical standards by which he lives;

respects the religious convictions of all men;

*participates constructively in the social, eco-
nomic, and political life of the com-
munity;*

*communicates ideas in a manner that assures
understanding, for understanding unites
men in their search for truth.*

Formulated and adopted by the
faculty as a guide to learning.

Wilkes College

Wilkes College had its beginnings in 1933 when Bucknell University, responding to a request of community leaders, established its Junior College in Wilkes-Barre. On June 26, 1947, Bucknell University Junior College came to an end and Wilkes College received its charter as a four-year liberal arts college. The College has grown steadily to its current enrollment of approximately 2400 full-time day students and 1000 evening students engaged in undergraduate, graduate, and continuing education programs.

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

AN INDEPENDENT COLLEGE

It was inevitable that the new college should be non-sectarian, for its purpose was to serve all students equally and its supporters wished the College to integrate itself with all constructive efforts in the community. It was believed that these ends could be served best by an independent college that was interdenominational in its influence and non-denominational in its control.

FREEDOM OF INQUIRY

Years have passed since Bucknell gave the control of the Junior College to a local Board of Trustees, guided by the late Gilbert S. McClintock, and events of these years demonstrate the wisdom of their decision. With responsibility came a pressing desire to strengthen the work of the faculty, united in their faith that the intellectual and spiritual resources of the student are vigorous where the creative mind is free.

UNITY AMIDST DIVERSITY

A college that wishes to serve all groups requires both a definite philosophy and a working policy. Wilkes College has been guided by the thought that unity in our community, our nation, and our world requires not only great vision but warm understanding of peoples. In its small circle Wilkes College brings together students of many faiths,

backgrounds, and countries. It encourages them to maintain their convictions and their loyalties. It encourages them to create friendships based upon respect for differences, and to adhere to those ideals that create unity and good will amidst diversity.

While academic work is the basis of the College program, the faculty recognizes that academic training will be of little importance unless students emerge as men and women of strong faith and fine character. In the words of John Stuart Mill, "Before you can make men doctors and lawyers, you must first make them men."

Wilkes College is committed to education as a way of life.

A COOPERATIVE EFFORT

The original concept of community effort has been strengthened with the passing of the years and with growing experience. It has been clearly demonstrated that the students, the College, and the community all benefit from cooperative effort. This cooperative relationship, with its emphasis on trained intelligence and extended planning, has resulted in cooperative action.

DECADES OF GROWTH

Because of their interest and faith, friends have multiplied their support during the past decades and the campus has expanded steadily so that it now includes most of the properties facing the River Common. Fortunately, a growing endowment has kept pace with the expansion of the campus.

ACCREDITATION

Wilkes is accredited by the Department of Public Instruction of the State of Pennsylvania and the Middle States Association of Colleges and Secondary Schools. The Accounting curriculum has been accredited by the Certified Public Accounting Examiners of the State of New York.

EVENING COLLEGE

INFORMATION

CURRICULA

UNDERGRADUATE PROGRAM

To meet the needs of ambitious men and women who desire the help which may come from college instruction, Wilkes College offers a wide program of Evening courses from which selections may be made according to individual tastes and requirements.

The courses offered by the Evening College 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 the study of problems relating to business administration and the economy of the nation and the world.
5. Those who wish to prepare for the profession of accounting and aspire to qualify for a 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.
7. Men and women seeking a college degree through attendance in the Evening College.

Except where designated in the course schedule, classes for courses offered in the evening will be scheduled on Monday-Wednesday or Tuesday-Thursday between the hours of 6:00 p.m. and 10:00 p.m.

The College reserves the right to withdraw any course for which there is insufficient enrollment. Students who have registered for courses that may be cancelled because of insufficient enrollment will be notified as promptly as possible.

RESEARCH AND GRADUATE CENTER

The Research and Graduate Center is an excellently equipped and staffed installation that is an integral part of the College complex. During the school term the Center will continue the various public and private research projects now in progress.

LABOR-MANAGEMENT TRAINING COURSES

To establish a climate for industrial redevelopment the College has pioneered a Labor-Management Training Program in which the needs of the individual and the company are analyzed.

Plans are arranged in consultation with officials, foremen, and other employees and are designed to meet the general and specific requirements of the particular group. Where several firms are confronted with common problems, special classes are organized to include representation of several companies.

INSTITUTE OF REGIONAL AFFAIRS

The Institute of Regional Affairs is a multi-purpose college organization which views regional problems as belonging to no simple academic discipline, but rather as a contemporary phenomenon spilling into many disciplines. The Institute was created to assure coordination of varied efforts in order to better understand and resolve complex and contemporary problems.

Its four-fold purpose is: education and training, community information, research, and consultation.

The underlying philosophy of the Institute of Regional Affairs is cooperation, rather than reform of partisanship.

FACILITIES

The College is located in Wilkes-Barre, Pennsylvania, in the heart of the picturesque and historic Wyoming Valley. This ideal location in the foothills of the Poconos offers abundant cultural and recreational facilities and affords close proximity and convenient transportation to the metropolitan areas of New York and Philadelphia.

THE LIBRARY

The Library will post its Spring schedule at the beginning of the semester.

Evening College students may borrow books from the Library by presenting their I.D. card.

BOOKSTORE

The Bookstore offers a complete stock of necessary textbooks and supplies. It will be open as follows:

Monday through Friday	9:00 a.m. to 11:45 a.m. 1:00 p.m. to 4:45 p.m.
Monday and Tuesday Evenings	6:00 p.m. to 7:45 p.m.
Saturday	9:00 a.m. to 11:45 a.m.

EXPENSES

Tuition — \$50 per semester hour credit.

All charges must be paid at the time registration forms are processed.

Books and supplies may be purchased at the bookstore and must be paid for at the time of purchase.

WITHDRAWAL

A student who withdraws from the evening session or drops courses after the first week must receive approval from the instructor and should give prompt written or verbal notice to the Director of the Evening and Summer College in order that their records may not unjustly show failure in courses.

Students in good standing who withdraw from the College will receive a refund of tuition under the following conditions: during the first six weeks of the evening session one-half of the tuition will be refunded upon request to the Director of Evening and Summer College, if the withdrawal is made for adequate and satisfactory reasons. After the first six weeks no refunds are allowed and the student is obligated for the full costs of the term. No student who is suspended or expelled shall be entitled to any refunds.

EVENING COLLEGE **UNDERGRADUATE DIVISION** **Spring Semester — 1970**

COURSE	DESCRIPTION	DAY & HOURS	ROOM No.	CR. HRS.
ACCOUNTING:				
Acct. 101E	Elementary Accounting I	MW 6:30-8:00	Par 35	3
Acct. 101E-2	Elementary Accounting I	TTh 6:30-8:00	Par. 35	3
Acct. 102E	Elementary Accounting II (Pre: Acct. 101)	MW 6:30-8:00	Par. 45	3
Acct. 102E-2	Elementary Accounting II (Pre: Acct. 101)	TTh 6:30-8:00	Par. 45	3
Acct. 111E	Intermediate Accounting I (Pre: Acct. 102)	MW 8:00-9:30	Par. 45	3
Acct. 112E	Intermediate Accounting II (Pre: Acct. 111)	TTh 8:00-9:30	Par. 35	3
Acct. 202E	Cost Accounting II (Pre: Acct. 201)	MW 6:30-8:00	Par. 25	3
Acct. 222E	Taxes II (Pre: Acct. 221)	TTh 6:30-8:00	Par. 25	3
Acct. 232E	Auditing II (Pre: Acct. 231)	MW 8:00-9:30	Par. 25	3
Acct. 242E	Advanced Accounting II (Pre: Acct. 112 and permission of instructor)	MW 6:30-8:00 MW 6:30-8:00	Par. 25 PAR ANNEX	3
BIOLOGY:				
Bio. 102E	Biological Science	MW 6:30-8:00	Stark 116	3
Bio. 102E-2	Biological Science	TTh 6:30-8:00	Stark 116	3
BUSINESS ADMINISTRATION:				
B.A. 114E	Salesmanship (Pre: app. of instructor)	MW 6:30-8:00 M 6:30-9:30	Par. 34	3
B.A. 216E	Advertising	TTh 6:30-8:00	Par. 43	3
B.A. 220E	Real Estate (Pre: Econ. 102)	MW 8:00-9:30	Kirby 108	3
B.A. 222E	Marketing (Pre: Econ. 102)	TTh 6:30-8:00	Par. 46	3
B.A. 226E	Investments (Pre: B.A. 225)	TTh 8:00-9:30	Par. 46	3
B.A. 232E	Business Law — Agency and Sales (Pre: B.A. 231)	MW 6:30-8:00	Par. 23	3

COURSE	DESCRIPTION	DAY & HOURS	ROOM No.	CR. HRS.
B.A. 233E	Business Law — Property	MW 8:00-9:30	Par. 34	3
B.A. 240E	Property Insurance (Pre: B.A. 231)	MW 6:30-8:00	Par. 43	3
B.A. 244E	Time and Motion Study (Pre: B.A. 232)	TTh 8:00-9:30	Par. 43	3
B.A. 252E	Principles of Management II (Pre: B.A. 251)	TTh 6:30-8:00	Par. 34	3

ECONOMICS:

Econ. 101E	Principles of Economics I	TTh 8:00-9:30	Par. 23	3
Econ. 102E	Principles of Economics II (Pre: Econ. 101)	MW 6:30-8:00	Par. 56	3
Econ. 102E-2	Principles of Economics II (Pre: Econ. 101)	MW 8:00-9:30	Par. 56	3
Econ. 202E	Theory of Money (Pre: Econ. 201)	MW 8:00-9:30	Par. 35	3
Econ. 212E	Government and Business (Pre: P.S. 101, Econ. 102)	MW 8:00-9:30	Par. 23	3
Econ. 228E	Economic Geography of Asia, Africa and Latin America (Econ. 227 is not a prerequisite)	MW 6:30-8:00	Par. 46	3
Econ. 232E	Economics Statistics (Pre: Econ. 231)	TTh 6:30-8:00	Par. 23	3
Econ. 236E	Public Finance (Pre: Econ. 102, P.S. 101)	TTh 8:00-9:30	Par. 34	3

EDUCATION:

Ed. 201E	Introduction to Education (Pre: Sophomore standing)	MW 6:30-8:00	KIRBY 103 Chase 209	3
Ed. 351E	Educational Measurements (Pre: Ed. 202)	Th 4:00-6:00	Kirby 107	2

ENGLISH:

Eng. 102E	Composition (Pre: Eng. 101)	MW 6:30-8:00	Bdf. 12	3
Eng. 102E-2	Composition (Pre: Eng. 101)	MW 8:00-9:30	Bdf. 12	3
Eng. 102E-3	Composition (Pre: Eng. 101)	TTh 6:30-8:00	Bdf. 12	3
Eng. 131E	Fundamentals of Speech	Th 6:00-8:00	Bdf. 13	2
Eng. 131E-2	Fundamentals of Speech	M 4:00-6:00	Bdf. 13	2
Eng. 152E	Western World Literature (Pre: Eng. 151)	MW 6:00-8:00	Bdf. 14	4
Eng. 152E-2	Western World Literature (Pre: Eng. 151)	TTh 6:00-8:00	Bdf. 14	4
ENG. 152 E-3	WEST. WORLD LITERATURE	TTH 6:00-8:00	BDF. SEMINAR ROOM	4
ENG. 102E-4	COMPOSITION	TTH 6:30-8:00	MINER 20	3

COURSE	DESCRIPTION	DAY & HOURS	ROOM No.	CR. HRS.
ENVIRONMENTAL SCIENCE:				
Envi. Sci. 102E	Introductory Space Science Laboratory Lab Fee \$10	T 8:00-10:00 Th 8:00-10:00	Stark 114	3
FINE ARTS:				
F.A. 204E	Watercolor Painting (Pre: F.A. 202)	MW 8:00-9:30	Pick 103 <i>CON. ANNEX</i>	3
FOREIGN LANGUAGES:				
French 102E	Elementary French II (Pre: French 101)	MW 8:00-9:30	Kirby 102	3
German 102E	Elementary German (Pre: German 101)	TTh 6:30-8:00	Kirby 203	3
Spanish 102E	Elementary Spanish (Pre: Spanish 101)	TTh 6:30-8:00	Kirby 208	3
Spanish 204E	Intermediate Spanish (Pre: Spanish 203)	TTh 6:30-8:00	Kirby 302	3
HISTORY:				
Hist. 102E	History of World Civilization	TTh 8:00-9:30	Wk. An.	3
Hist. 102E-2	History of World Civilization	MW 8:00-9:30	C. S. C.	3
Hist. 102E-3	History of World Civilization	MW 8:00-9:30	Wk. An.	3
Hist. 102E-4	" " " "	TTh 8:00-9:30	KIRBY 208	3
Hist. 328E	History of the Foreign Policy of the United States (Pre: Hist. 101, 102, 107, 108)	W 5:30-8:30	H & P	3
Hist. 334E	Twentieth Century America (Pre: Hist. 107, 108)	T 5:30-8:30	H & P	3
Hist. 358E	History of Modern Russia (Pre: Hist. 101, 102)	M 5:30-8:30	H & P	3
JOURNALISM:				
Jour. 102E	Journalism II (Pre: Jour. 101 or permission of instructor) Lab Fee \$10	MW 6:30-8:00	Par. 33	3

COURSE	DESCRIPTION	DAY & HOURS	ROOM No.	CR. HRS.
MATHEMATICS:				
Math. 100E	Pre-Calculus Mathematics (Pre: Two years of secondary school mathematics in algebra and geometry)	MW 6:00-8:00	Miner 11	4
Math. 102E	Fundamentals of Math. II (Not open to students with credits in Math. 103, 104)	MW 6:30-8:00	Kirby 108	3
Math. 112E	Analysis II (Pre: Math. 111)	TTh 6:00-8:00	Miner 11	4
Math. 206E ^{267E}	Introduction to Computer Programming I ^I (Pre: Math. 267)	TTh 6:30-8:00	Stark 114	3
Math. 334E	Linear Algebra (Pre: Math. 222 or equivalent, and consent of department chairman) Open to advanced undergraduates and graduate students	MW 6:30-8:00	Miner 20	3
MUSIC:				
Music 101E	Introduction to the Materials and Literature of Music I	TTh 6:30-8:00	M. B. 2	3
Music 102E	Introduction to the Materials and Literature of Music II	TTh 8:00-9:30	M. B. 2	3
Applied Music	Please arrange this course with Mr. Gasbarro, chairman, Music Department			1
NURSING EDUCATION:				
N.E. 101E	Foundations of Nursing	M 4:00-6:00	Kirby 107	2
N.E. 107E	Principles and Methods in Nursing Education (Pre: Psy. 102 or permission of instructor)	T 4:00-6:00	Kirby 107	2
N.E. 108E	Multi-Sensory Techniques in Nursing Education (Pre: N.E. 107 — may be taken concurrently)	W 4:00-5:00	Kirby 107	1
N.E. 112E	Field Experience in Supervision or Teaching (Pre: approval of advisor)	Hours to be arranged		4
N.E. 113E	Medical and Surgical Nursing	Th 8:00-10:00	Kirby 107	2

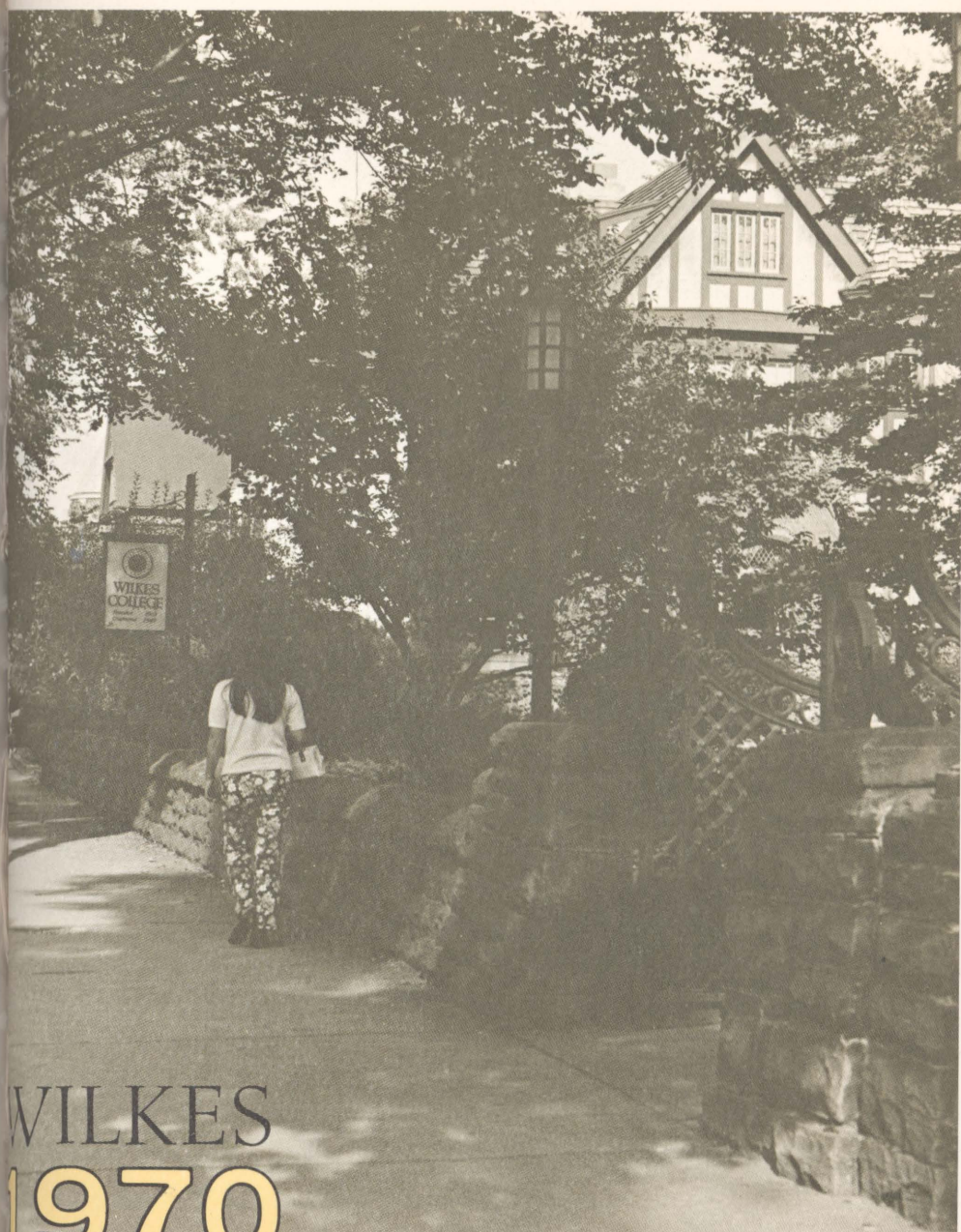
COURSE	DESCRIPTION	DAY & HOURS	ROOM No.	CR. HRS.
PHILOSOPHY:				
Phil. 101E	Introduction to Philosophy	MW 6:30-8:00	H & P 14	3
Phil. 102E	Logic and Scientific Method	TTh 6:30-8:00	H & P 14	3
Phil. 102E-2	Logic and Scientific Method	TTh 6:30-8:00 MW	Kirby 107	3
PHYSICAL EDUCATION:				
P.E. 106E	Hygiene	T 7:00-8:00	WECK. ANNEX Ch-Th.	1
PHYSICS:				
Physics 102E	Physical Science	MW 6:30-8:00	Stark 109	3
POLITICAL SCIENCE:				
P.S. 102E	Political Science II	TTh 6:30-8:00	Par. 56	3
P.S. 224E	Soviet System of Government (Pre: P.S. 101, 102)	MW 8:00-9:30	Par. 43	3
P.S. 252E	Fundamentals of Urban Design (Pre: P.S. 251)	TTh 8:00-9:30	Par. 56	3
PSYCHOLOGY:				
Psy. 102E	General Psychology	TTh 6:30-8:00	Kirby 102	3
Psy. 102E-2	General Psychology	TTh 8:00-9:30	Kirby 102	3
Psy. 232E	Human Behavior (Pre: Psy. 101, 102)	M 6:30-8:30 MW 8:00-9:30	Kirby 303	3
Psy. 242E	Psychological Tests (This course is a prereq- uisite for Psy. 243, 245)	Th 6:30-9:30	Kirby 303	3
Psy. 243E	Industrial Psychology (Pre: Psy. 242)	TTh 6:30-8:00	Kirby 109	3
Psy. 331E	Abnormal Psychology (Pre: Psy. 221, 232 and per- mission of head of dept.)	T 6:30-9:30	Kirby 303	3
RETAILING:				
Ret. 214E	Retail Buying (Pre: app. of instructor)	MW 6:30-8:00 TTh 8:00-9:30	102 Kirby 108	3
SECRETARIAL STUDIES:				
S.S. 106E	Elementary Shorthand	TTh 6:00-8:00	Par. 33	2
S.S. 108E	Elementary Typing Lab Fee \$10	TTh 8:00-10:00	Par. 33	2
SOCIOLOGY AND ANTHROPOLOGY:				
Soc. 102E	Introduction to Anthropology	MW 6:30-8:00	Kirby 208	3
Soc. 200E	The Family (Pre: Soc. 101, 102 or per- mission of instructor)	TTh 8:00-9:30	Kirby 203	3
Soc. 251E	Comparative Social Welfare Systems (Pre: Soc. 101, 102, Psy. 101, 102)	TTh 6:30-8:00	Kirby 108	3
Soc. 102E	INTRO. TO ANTHROPOLOGY	MW 6:30-8:00	KIRBY 203	3

GRADUATE DIVISION

Spring Semester 1970

INFORMATION ON ALL GRADUATE COURSES CAN
BE OBTAINED AT THE GRADUATE SCHOOL OFFICE
AT WILKES COLLEGE (Telephone: 824-4651, Ext. 243).

EUGENE SHEDDEN FARLEY LIBRARY
WILKES COLLEGE
WILKES-BARRE, PA. 18703



WILKES
1970
SUMMER
COLLEGE

CALENDAR

SIX-WEEK DAY SESSIONS — 1970

FIRST SESSION

REGISTRATION — Tuesday, June 2, thru Friday, June 5
Weckesser Hall — 8:30 a.m. to 4:30 p.m.

SESSION BEGINS — Monday, June 8

SESSION ENDS — Friday, July 17
(Including Final Examination)

SECOND SESSION

REGISTRATION — Thursday, July 16, Friday, July 17, and
Monday, July 20
Weckesser Hall — 8:30 a.m. to 4:30 p.m.

SESSION BEGINS — Tuesday, July 21

SESSION ENDS — Friday, August 28
(Including Final Examination)

EIGHT-WEEK EVENING SESSION

REGISTRATION — Wednesday, June 10, thru Friday, June 12
Weckesser Hall — 8:30 a.m. to 8:00 p.m.

SESSION BEGINS — Monday, June 15

SESSION ENDS — Thursday, August 6
(Including Final Examination)

FOR FURTHER INFORMATION WRITE TO:

Director of Evening and Summer College

Wilkes College

Wilkes-Barre, Pennsylvania 18703

Phone: 824-4651 (After 5:00 p.m. — call 824-4656)

In order to minimize the possibility of cancelling courses, the preliminary registration form on the back cover should be completed and forwarded to the Director of Evening and Summer College as soon as possible. The preliminary registration does not obligate the registrant to take the course.

WILKES

ADDENDA

FIRST DAY SESSION:

Add

B.A. 240S

Property Insurance
(Pre: approval of in

Par. 23

8:00-9:30 3

B.A. 241S

Life Insurance
(Pre: approval of instructor)

Par. 23

10:00-11:30 3

SECOND DAY SESSION:

Delete

B.A. 240S

Property Insurance
(Pre: approval of instructor)

Par. 23

8:00-9:30 3

B.A. 241S

Life Insurance
(Pre: approval of instructor)

Par. 23

10:00-11:30 3

CALENDAR

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WILKES

College

Barre

Pennsylvania

FIRST DAY SESSION:

Add

B.A. 240S	Property Insurance (Pre: approval of instructor)	Par. 23	8:00-9:30	3
B.A. 241S	Life Insurance (Pre: approval of instructor)	Par. 23	10:00-11:30	3

ADDENDA

SECOND DAY SESSION:

Delete

B.A. 240S	Property Insurance (Pre: approval of instructor)	Par. 23	8:00-9:30	3
B.A. 241S	Life Insurance (Pre: approval of instructor)	Par. 23	10:00-11:30	3

CALENDAR

SIX-WEEK DAY SESSIONS — 1970

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In order to minimize the possibility of cancelling courses, the preliminary registration form on the back cover should be completed and forwarded to the Director of Evening and Summer College as soon as possible. The preliminary registration does not obligate the registrant to take the course.

WILKES COLLEGE *Bulletin*

SUMMER SESSIONS
1970



Wilkes-Barre • Pennsylvania

An
Educated
Man

seeks truth, for without truth there can be no understanding;

possesses vision, for he knows that vision precedes all great attainments;

is aware of the diversity of ideas and beliefs that exist among men;

has faith in the power of ideals to shape the lives of men;

knows that man's progress requires intellectual vigor, moral courage, and physical endurance;

cultivates inner resources and spiritual strength, for they enrich his daily living and sustain him in times of crisis;

has ethical standards by which he lives;

respects the religious convictions of all men;

participates constructively in the social, economic, and political life of the community;

communicates ideas in a manner that assures understanding, for understanding unites men in their search for truth.

*Formulated and adopted by the
faculty as a guide to learning.*

Wilkes College

Wilkes College had its beginnings in 1933 when Bucknell University, responding to a request of community leaders, established its Junior College in Wilkes-Barre. On June 26, 1947, Bucknell University Junior College came to an end and Wilkes College received its charter as a four-year liberal arts college. The College has grown steadily to its current enrollment of approximately 2,400 full-time day students and 1,000 adults in the Evening College and special classes.

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

AN INDEPENDENT COLLEGE

It was inevitable that the new College should be non-sectarian, for its purpose was to serve all students equally and its supporters wished the College to integrate itself with all constructive efforts in the community. It was believed that these ends could be served best by an independent college that was interdenominational in its influence and non-denominational in its control.

FREEDOM OF INQUIRY

Years have passed since Bucknell gave the control of the Junior College to a local Board of Trustees, guided by the late Gilbert S. McClintock, and events of these years demonstrate the wisdom of their decision. With responsibility came a pressing desire to strengthen the work of the faculty, united in their faith that the intellectual and spiritual resources of the student are vigorous where the creative mind is free.

UNITY AMIDST DIVERSITY

A college that wishes to serve all groups requires both a definite philosophy and a working policy. Wilkes College has been guided by the thought that unity in our community, our nation, and our world requires not only great vision but warm understanding of

peoples. In its small circle Wilkes College brings together students of many faiths, backgrounds, and countries. It encourages them to maintain their convictions and their loyalties. It encourages them to create friendships based upon respect for differences, and to adhere to those ideals that create unity and good will amidst diversity.

While academic work is the basis of the College program, the faculty recognizes that academic training will be of little importance unless students emerge as men and women of strong faith and fine character. In the words of John Stuart Mill, "Before you can make men doctors and lawyers, you must first make them men."

A COOPERATIVE EFFORT

The original concept of community services has been strengthened with the passing of the years and with growing experience. It has been clearly demonstrated that the students, the College, and the community all benefit from cooperative effort. This cooperative relationship, with its emphasis on trained intelligence and extended planning, has resulted in cooperative action.

DECADES OF GROWTH

Because of their interest and faith, friends have multiplied their support during the past decades and the campus has expanded steadily so that it now includes most of the properties facing the River Common. Fortunately, a growing endowment has kept pace with the expansion of the campus.

ACCREDITATION

Wilkes is accredited by the Department of Public Instruction of the State of Pennsylvania, the Middle States Association of Colleges and Secondary Schools, Certified Public Accounting Examiners of the State of New York, and the American Chemical Society.

SUMMER COLLEGE

Information

Curricula

UNDERGRADUATE PROGRAM

The summer program is designed for men and women interested in accelerating degree work, and for recent high school graduates interested in beginning their college careers. Courses are open to Wilkes College students, students of other colleges, and non-matriculated students.

Course load is limited to six semester hours of credit for each six-week session. Students are cautioned to exercise judgment and care in scheduling both day and evening courses.

Most classes for courses offered during the six-week day sessions will meet five days per week during the morning hours as follows:

FIRST PERIOD — 8:00 A.M. to 9:30 A.M.

SECOND PERIOD — 10:00 A.M. to 11:30 A.M.

Except where designated in the course schedule, classes for courses offered during the eight-week evening session will be scheduled on Monday, Tuesday, and Thursday evenings between the hours of 6:00 P.M. and 10:00 P.M.

The College reserves the right to cancel any course due to insufficient enrollment or any other reason. Students who have registered for courses that are subsequently cancelled because of insufficient enrollment will be notified as promptly as possible.

ADMISSION

Admission to the summer program is granted to:

- a) all Wilkes College students currently in good standing;
- b) high school graduates who have been admitted as degree candidates to the Wilkes regular program;
- c) high school graduates who have been admitted as full-time students in the regular program of an accredited college other than Wilkes;
- d) all students in good standing at their respective colleges who furnish official confirmation of that status sent by the dean of their college to the director of the Wilkes summer session;

- e) students who enroll in the summer session upon special invitation by Wilkes Committee on Admissions.

Non-Wilkes summer session students who desire to become degree candidates here will have to qualify for admission or transfer into the college's regular program via the procedures outlined by the Committee on Admissions. Such procedures must be initiated through the office of Mr. John Whitby, Director of Admissions.

TRANSFER OF CREDITS

Credits earned in the Wilkes College summer session may be transferred to other institutions. Students may, at the conclusion of the course, request this service by filling out a card indicating to which institution credits earned shall be transferred.

WITHDRAWAL

Withdrawal from classes after the first week is inadvisable except in extenuating circumstances.

A student who withdraws from the summer session or drops courses after the first week *must* receive permission from the instructor and the Director of the Evening and Summer College in order that their records may not unjustly show failure in courses.

Students in good standing who withdraw from the College will receive a refund of tuition under the following conditions: During the first week of the six-week sessions and during the first two weeks of the eight-week evening session one-half of the tuition will be refunded upon written request to the Director of Evening and Summer College, if the withdrawal is made for adequate and satisfactory reasons. After the periods designated no refunds are allowed and the student is obligated for the full costs of the term. No student who is suspended or expelled shall be entitled to any refunds.

Facilities

The College is located in Wilkes-Barre, Pennsylvania, in the heart of the picturesque and historic Wyoming Valley. This ideal location in the foothills of the Poconos offers abundant cultural and recreational facilities and affords close proximity and convenient transportation to the metropolitan areas of New York and Philadelphia.

DORMITORY AND DINING FACILITIES

Dormitory and dining facilities will be available for both male and female students. The cost for these services may be found under EXPENSES. Arrangements for dormitory accommodations may be made with the Director of Evening and Summer College.

THE LIBRARY

The Library will post its Summer schedule at the beginning of the first day session.

THE BOOKSTORE

The Bookstore offers a complete stock of necessary textbooks and supplies. It will be open as follows:

Monday through Friday	9:00 a.m. — 11:45 a.m. 1:00 p.m. — 4:45 p.m.
Monday & Tuesday Evenings	6:00 p.m. — 7:45 p.m.
(First two weeks of each session)	

Expenses

The student may expect to incur the following expenses for the summer session:

- TUITION — \$50 per credit hour
- DORMITORY (Exclusive of meals) — \$75 per six-week session
- LINEN SERVICE — \$5 per six-week session (required for dormitory students)
- DINING FACILITIES — Dining Hall will be open Monday through Friday. Meals may be taken on a pay-as-you-go basis.

All charges must be paid at the time registration forms are processed. Charges for the second six-week session may be paid no later than July 18, 1970. Books and supplies may be purchased at the bookstore and must be paid for at the time of purchase.

SUMMER SESSION SCHEDULE OF COURSES

FIRST SESSION SCHEDULE

June 8 - July 17, 1970 — Monday through Friday

COURSE	DESCRIPTION	ROOM	HOOR	CR.
ACCOUNTING:				
Acct. 101S	Elementary Accounting I	Par. 45	8:00-9:30	3
BIOLOGY:				
Biol. 101S	Biological Science	St. 116	10:00-11:30	3
Biol. 322S	Ecology (See Environmental Science)	St. 116	8:00-9:30	3
CHEMISTRY:				
Chem. 201S	Introduction to the Principles of Chemistry Laboratory Breakage Deposit \$10 Fee \$20	St. 204	8:30-10:00 10:00-1:00 TTh	4
Chem. 221S	Inorganic Quantitative Analysis (Pre: Chem. 202) Breakage Deposit \$10 Fee \$20 Laboratory	St. 204	10:00-11:00 MTWTh	4
Chem. 232S	Organic Chemistry I (Pre: Chem. 221 or approval) Laboratory Breakage Deposit \$10 Fee \$20	St. 139	10:00-11:30 1:00-4:00 MTW	4
ECONOMICS:				
Econ. 101S	Principles of Economics I	Par. 45	10:00-11:30	3
Econ. 111S	Economic History	Par. 34	8:00-9:30	3
Econ. 201S	Money and Banking (Pre: Econ. 102)	Par. 25	10:00-11:30	3
Econ. 231S	Applied General Statistics (Pre: Approval of instructor)	Par. 43	8:00-9:30	3
Econ. 236S	Public Finance (Pre: Econ. 102, P.S. 101)	Par. 25	8:00-9:30	3
Econ. 241S	Economic Analysis (Pre: Econ. 102)	Par. 34	10:00-11:30	3

SCHEDULE OF COURSES — Page 11

COURSE	DESCRIPTION	ROOM	HOOR	CR.
EDUCATION:				
Ed. 202S	Educational Psychology (Pre: Psy. 102, Junior standing)	Ch. 209	10:00-11:30	3
ENGLISH:				
Eng. 99P	Pre-College English	Bdf. Sem.	8:00-9:30 (June 15-July 24)	0
Eng. 99P-2	Pre-College English	Bdf. Sem.	10:00-11:30 (June 15-July 24)	0
Eng. 99P-3	Pre-College English	Bdf. 14	8:00-9:30 (June 15-July 24)	0
Eng. 101	Composition	Bdf. 13	8:00-9:30	3
Eng. 101S-2	Composition	Bdf. 14	10:00-11:30	3
Eng. 131S	Fundamentals of Speech	Bdf. 13	10:00-11:00	2
Eng. 151S	Western World Literature (Pre: Eng. 102)	Bdf. 12	8:00-10:00	4
Eng. 151S-2	Western World Literature (Pre: Eng. 102)	Kirby 203	8:00-10:00	4
Eng. 151S-3	Western World Literature (Pre: Eng. 102)	Bdf. 12	10:00-12:00	4
Eng. 405S	Studies in Linguistics This course is open to both undergraduates and graduate students. Undergraduates will be admitted by permission of the Department Chairman.	Kirby 203	10:00-11:30	3
ENVIRONMENTAL SCIENCE:				
Envi. Sci. 101S	Introductory Earth Science Laboratory Fee \$10	St. 109	8:00-10:00	3
Envi. Sci. 103S	Geology Fee \$20	St. 114	10:00-12:00	3
Biology 322S	Ecology This course will stress environmental factors in human ecology and is offered primarily for students interested in environmental science rather than biology students. Biology prerequisites are waived. Occasional afternoon field trips and lab. to be arranged. Fee \$20	St. 116	8:00-9:30	3
FINE ARTS				
F.A. 101S	Experiencing Art I	Con. An.	8:00-9:30	3
F.A. 211S	Modeling and Three Dimensional Construction (Pre: F.A. 102)	Harding	8:00-9:30	3
F.A. 226S	Modern Art History	Pick.	10:00-11:30	3

Page 12 — SCHEDULE OF COURSES

COURSE	DESCRIPTION	ROOM	HOUR	CR.
HISTORY:				
Hist. 101S	History of World Civilization	Week. An.	10:00-11:30	3
Hist. 101S-2	History of World Civilization	Week. An.	8:00-9:30	3
Hist. 107S	American and Pennsylvania History to 1865	H&P Sem.	8:00-9:30	3
History 333S	Age of Big Business (Pre: Hist. 107, 108)	H&P Sem.	10:00-11:30	3
LANGUAGES:				
Fr. 101S	Elementary French	Kirby 108	8:00-9:30	3
Fr. 203S	Intermediate French (Pre: Fr. 102 or equivalent)	Kirby 108	10:00-11:30	3
Ger. 101S	Elementary German	Kirby 103	8:00-9:30	3
German 203S	Intermediate German (Pre: Ger. 102 or equivalent)	Kirby 103	10:00-11:30	3
Span. 101S	Elementary Spanish	Kirby 107	8:00-9:30	3
Span. 203S	Intermediate Spanish (Pre: Span. 102 or equivalent)	Kirby 107	10:00-11:30	3
MATHEMATICS:				
Math 100S	Pre-Calculus Mathematics (Pre: Two years of secondary school mathematics in algebra and geometry.)	Miner 11	10:00-12:00 (June 15-July 24)	4
Math. 101S	Fundamentals of Mathematics	Miner 20	10:00-11:30	3
Math. 103S	Mathematics for Elementary School Teachers I Not open to students with Math. 101-102	Miner 11	8:00-9:30	3
Math. 267S	Introduction to Computer Programming I Fee \$20	St. 114	3:00-4:30	3
MUSIC:				
Music 101S	Introduction to the Materials and Literature of Music I	CPA Mus. An. 201	10:00-11:30	3
Music 102S	Introduction to the Materials and Literature of Music II	CPA Mus. An. 201	8:00-9:30	3
Applied Music	Please arrange this course with the Department Chairman, Mr. Gasbarro.			1

SCHEDULE OF COURSES — Page 13

COURSE	DESCRIPTION	ROOM	HOUR	CR.
PHILOSOPHY:				
Phil. 101S	Introduction to Philosophy	H&P 14	8:00-9:30	3
Phil. 102S	Logic and Scientific Method	H&P 14	10:00-11:30	3
PHYSICS:				
Phys. 201S	General Physics I (Pre: Math. 100) Laboratory Fee \$20	St. 302	10:00-11:30 Hours to be arranged	4
POLITICAL SCIENCE:				
P.S. 101P	Political Science I (Pre-College Students)	Par. 53	8:00-9:30 (June 15-July 24)	3
P.S. 101S	Political Science I	Par. 43	10:00-11:30	3
P.S. 208S	Labor Legislation (Pre: P.S. 101, 102)	Par. 53	10:00-11:30	3
PSYCHOLOGY:				
Psy. 101S	General Psychology	Par. 56	8:00-9:30	3
Psy. 101S-2	General Psychology	Kirby 208	8:00-9:30	3
Psy. 213S	Physiological Psychology (Pre: Psy. 101, 102)	Kirby 208	10:00-11:30	3
Psy. 221S	Child Psychology (Pre: Psy. 101, 102)	Par. 56	10:00-11:30	3
SOCIOLOGY:				
Soc. 101P	Introduction to Sociology and Anthropology I (Pre-College Students)	Par. 8	10:00-11:30 (June 15-July 24)	3
Soc. 101S	Introduction to Sociology and Anthropology I	Par. 35	8:00-9:30	3
Soc. 280S	Sociological Theory (Pre: Soc. 102 and permission of Department Chairman)	Par. 35	10:00-11:30	3

SECOND SESSION SCHEDULE

July 21 - August 28, 1970 — Monday through Friday

COURSE	DESCRIPTION	ROOM	HOUR	CR.
ACCOUNTING:				
Acct. 102S	Elementary Accounting II (Pre: Acct. 101)	Par. 45	8:00-9:30	3
BIOLOGY:				
Biol. 102S	Biological Science	St. 116	10:00-11:30	3
BUSINESS ADMINISTRATION:				
B.A. 222S	Marketing (Pre: Econ. 102)	Par. 34	10:00-11:30	3
B.A. 225S	Corporation Finance (Pre: Econ. 102)	Par. 34	8:00-9:30	3
B.A. 240S	Property Insurance (Pre: approval of instructor)	Par. 23	8:00-9:30	3
B.A. 241S	Life Insurance (Pre: approval of instructor)	Par. 23	10:00-11:30	3
CHEMISTRY:				
Chem. 202S	Chemical Equilibria (Pre: Chem. 201) Breakage Deposit \$10 Fee \$20 Laboratory	St. 204	8:30-10:00 10:00-1:00 TTh	4
Chem. 235S	Organic Chemistry IIa (Pre: Chem. 232) Laboratory Breakage Deposit \$10 Fee \$20	St. 204	10:00-11:30 1:00-4:00 MTW	4
ECONOMICS:				
Econ. 102S	Principles of Economics II (Pre: Econ. 101)	Par. 23	8:00-9:30	3
Econ. 232S	Economic Statistics (Pre: Econ. 231)	Par. 23	10:00-11:30	3
EDUCATION:				
Ed. 201S	Introduction to Education (Pre: Sophomore standing)	Chase 209	8:00-9:30	3
Ed. 352S	Guidance (Pre: Ed. 202)	Chase 209	10:00-11:30	3

COURSE	DESCRIPTION	ROOM	HOUR	CR.
ENGLISH:				
Eng. 101S	Composition	Bdf. 12	10:00-11:30	3
Eng. 102S	Composition (Pre: Eng. 101)	Bdf. 13	8:00-9:30	3
Eng. 152S	Western World Literature (Pre: Eng. 151)	Bdf. 12	8:00-10:00	4
Eng. 152S-2	Western World Literature (Pre: Eng. 151)	Kirby 208	8:00-10:00	4
Eng. 152S-3	Western World Literature (Pre: Eng. 151)	Bdf. 13	10:00-12:00	4
Eng. 420S	Studies in Renaissance Literature: Shakespeare This course is open to undergraduates and graduate students. Undergraduates may take this course in place of English 221.	Kirby 208	10:00-11:30	3
ENVIRONMENTAL SCIENCE:				
Envi. Sci. 102S	Introductory Space Science Lab. Fee \$10	St. 116	8:00-10:00	3
Envi. Sci. 104S	Hydrology Fee \$20	St. 139	10:00-12:00	3
FINE ARTS:				
F.A. 101S	Experiencing Art I	Con. An.	8:00-9:30	3
F.A. 212S	Ceramics	Con. An.	10:00-11:30	3
HISTORY:				
Hist. 102S	History of World Civilization	Weck. An.	8:00-9:30	3
Hist. 334S	Twentieth Century America (Pre: Hist. 107, 108)	Weck. An.	10:00-11:30	3
LANGUAGES:				
Fr. 102S	Elementary French II (Pre: Fr. 101)	Kirby 108	8:00-9:30	3
Fr. 204S	Intermediate French II (Pre: Fr. 203)	Kirby 108	10:00-11:30	3
Ger. 102S	Elementary German II (Pre: Ger. 101)	Kirby 103	8:00-9:30	3
Ger. 204S	Intermediate German II (Pre: Ger. 203)	Kirby 103	10:00-11:30	3

Page 16 — SCHEDULE OF COURSES

COURSE	DESCRIPTION	ROOM	HOUR	CR.
Russ. 101S	Elementary Russian I	Kirby 203	8:00-9:30	3
Russ. 102S	Elementary Russian II (Pre: Russ. 101)	Kirby 203	10:00-11:30	3
Span. 102S	Elementary Spanish II (Pre: Span. 101)	Kirby 107	8:00-9:30	3
Span. 204S	Intermediate Spanish II (Pre: Span. 203)	Kirby 107	10:00-11:30	3

MUSIC:

Music 101S	Introduction to the Materials and Literature of Music I	CPA Mus. An. 201	10:00-11:30	3
Music 102S	Introduction to the Materials and Literature of Music II	CPA Mus. An. 202	10:00-11:30	3
Applied Music	Please arrange this course with Mr. Gasbarro, Chairman, Department of Music.			1

MATHEMATICS:

Math. 102S	Fundamentals of Mathematics (Pre: Math. 101)	Miner 11	10:00-11:30	3
Math. 104S	Mathematics for Elemen- tary Teachers II Not open to students with credits in Math. 101, 102	Miner 11	8:00-9:30	3

PHILOSOPHY:

Phil. 101S	Introduction to Philosophy	H&P 14	10:00-11:30	3
Phil. 102S	Logic and Scientific Method	H&P 14	8:00-9:30	3

PHYSICS:

Phys. 202S	General Physics II (Pre: Phys. 201) Laboratory Fee \$20	St. 132	10:00-11:30	4
Phys. 203S	General Physics III (Pre: Phys. 202)	St. 114	10:00-11:30	3

SCHEDULE OF COURSES — Page 17

COURSE	DESCRIPTION	ROOM	HOUR	CR.
POLITICAL SCIENCE:				
P.S. 102S	Political Science II	Par. 53	8:00-9:30	3
P.S. 206S	Municipal Government (Pre: P.S. 101, 102)	Par. 53	10:00-11:30	3

PSYCHOLOGY:

Psy. 102S	General Psychology	Par. 43	8:00-9:30	3
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SOCIOLOGY:

Soc. 102S	Introduction to Sociology and Anthropology II	Par. 56	8:00-9:30	3
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EVENING SESSION SCHEDULE

June 15 - August 6, 1970 — Monday, Tuesday and Thursday

COURSE	DESCRIPTION	ROOM	HOUR	CR.
ACCOUNTING:				
Acct. 101E	Elementary Accounting I	Par. 35	8:00-10:00	3
Acct. 102E	Elementary Accounting II (Pre: Acct. 101)	Par. 35	6:00-8:00	3

BUSINESS ADMINISTRATION:

B.A. 209E	Business Correspondence and Reports (Pre: Eng. 102)	Par. 43	6:00-8:00	3
B.A. 251E	Principles of Management I	Par. 43	8:00-10:00	3

ECONOMICS:

Econ. 101E	Principles of Economics I	Par. 23	6:00-8:00	3
Econ. 102E	Principles of Economics II (Pre: Econ. 101)	Par. 23	8:00-10:00	3
Econ. 223E	Collective Bargaining (Pre: Econ. 102)	Par. 34	6:00-8:00	3

Page 18 — SCHEDULE OF COURSES

COURSE	DESCRIPTION	ROOM	HOUR	CR.
ENGLISH:				
Eng. 101E	Composition	Bdf. 12	6:00-8:00	3
Eng. 102E	Composition (Pre: Eng. 101)	Bdf. 13	8:00-10:00	3
Eng. 131E	Fundamentals of Speech	Bdf. 13	6:00-8:00	2
Eng. 151E	Western World Literature (Pre: Eng. 102)	Kirby 208	MTh 6:00-8:00	4
Eng. 152E	Western World Literature (Pre: Eng. 151)	Kirby 208	MTWTh 8:00-10:00	4
Eng. 201E	Advanced Exposition (Pre: Eng. 102)	Bdf. 12	MTWTh 8:00-10:00	3
HISTORY:				
Hist. 102E	History of World Civilization	H&P Sem.	6:00-8:00	3
Hist. 108E	American and Pennsyl- vania History from 1865	Week. An.	6:00-8:00	3
Hist. 222E	American Social and Intellectual History (Pre: Hist. 107, 108)	Week. An.	8:00-10:00	3
MATHEMATICS:				
Math. 111E	Analysis I (Pre: Math. 100 or equivalent)	Miner 11	6:00-8:00	4
Math. 112E	Analysis II (Pre: Math. 111)	Kirby 102	MTWTh 8:00-10:00	4
Math. 311E*	Functions of a Real Variable I (Pre: Math. 222)	Kirby 203	MTWTh Time to be arranged	3
Math. 331E	Introduction to Abstract Algebra I (Pre: Math. 222)	Kirby 302	Time to be arranged	3
Math. 334E	Linear Algebra (Pre: Math. 222)	Kirby 303	Time to be arranged	3
* Enrollment for graduate credit restricted to students who will be able to take Math. 312 to be offered in late afternoon or evening in Fall Semester, 1970.				
MUSIC:				
Music 101E	Introduction to the Materials and Literature of Music I	CPA Mus. An. 201	6:00-8:00	3
Applied Music	Please arrange this course with Mr. Gasbarro, Department Chair- man.			1

SCHEDULE OF COURSES — Page 19

COURSE	DESCRIPTION	ROOM	HOUR	CR.
NURSING EDUCATION:				
N.E. 112E	Field Experience in Supervision or Teaching	Kirby 103	Hours to be arranged	4
PHILOSOPHY:				
Phil. 101E	Introduction to Philosophy	H&P 14	6:00-8:00	3
Phil. 210E	Ethics	H&P 14	8:00-10:00	3
PHYSICAL EDUCATION:				
P.E. 105E	Hygiene	Miner 20	6:30-8:00 T	1
PHYSICS:				
Phys. 231E	Electronics (Pre: Phys. 202)	St. 132	6:00-8:00	3
POLITICAL SCIENCE:				
P.S. 101E	Political Science I	Par. 53	6:00-8:00	3
P.S. 102E	Political Science II	Par. 53	8:00-10:00	3
P.S. 223E	Comparative Government (Pre: P.S. 101, 102)	Kirby 107	6:00-8:00	3
PSYCHOLOGY:				
Psy. 203E	Psychologic Theory (Pre: Psy. 101, 102)	Kirby 108	8:00-10:00	3
Psy. 221E	Child Psychology (Pre: Psy. 101, 102)	Par. 56	6:00-8:00	3
Psy. 232E	Human Behavior (Pre: Psy. 101, 102)	Kirby 108	6:00-8:00	3
SECRETARIAL STUDIES:				
S.S. 105E	Elementary Shorthand	Par. 33	6:00-8:00	2
S.S. 107E	Elementary Typewriting	Par. 33	8:00-10:00	2
SOCIOLOGY:				
Soc. 101E	Introduction to Sociology and Anthropology I	Par. 45	6:00-8:00	3
Soc. 102E	Introduction to Sociology and Anthropology II	Par. 45	8:00-10:00	3

Summer Theater Workshop

For High School students preparing for college.

For College students working toward Bachelor's Degree.

For Graduate students working toward Master's Degree.

Application for admission must be submitted before April 24, 1970.

Workshop dates — July 5 through August 2, 1970

For further information contact:

Dean of Admissions
Summer Theater Workshop
Wilkes College
Wilkes-Barre, Pennsylvania 18703
Telephone 824-4651, Ext. 201

Graduate Division

SUMMER — 1970

For information on graduate courses contact:

Dr. Ralph Rozelle
Director of Graduate Studies
Wilkes College
Wilkes-Barre, Pennsylvania 18703
Telephone 824-4651, Ext. 243

PRELIMINARY REGISTRATION FORM

Completion and filing of this form with the Director of Evening and Summer College, Wilkes College, Wilkes-Barre, Pennsylvania, 18703, will enable the Director to determine course demand. If advance demand does not warrant giving a particular course, the prospective student filing this form will be promptly notified. The completion and filing of this form does not, in any way, obligate the prospective student.

PRE-REGISTRATION

A statement of your academic standing must be submitted by your dean or registrar.

Name

Address

City State Zip Code

College or University
now attending

Please mail Registration forms. ☐

1st Semester Course No.	2nd Semester Course No.	Evening Course No.

Will you require dormitory accommodations? Yes ☐ No ☐

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Summer Sessions

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